









Author	Evan A. Bisirri and Dr. Aditya Belwadi
University	Drexel University
Title	Effects of covert facial familiarity on face recognition
In motor vehicle crashes involving children secured by a Child Restraint System (CRS), the shoulder harness plays a key role in mitigating forward excursion and ejection. Crash and simulation data has shown that harness slack can potentially increase excursion and the likelihood of occupant injury. Pretensioners are a well-documented	

method for reducing belt slack prior to a crash in situations involving adult occupants. While elimination of slack by pretensioner results in lower excursion and improved injury outcomes for adults, there is little research on the effects of pretensioner use in CRS's. The purpose of this research was to develop finite element simulations to explore the safety, efficacy, and thresholds for optimum pretensioner use in a CRS by identifying the relationships between harness loading and the response of the three year old Anthropomorphic Test Device (ATD).

The finite element models (FEM) simulate a frontal crash scenario composed of computational models of an FMVSS 213 test bench, commercial five-point harness, Forward Facing Child Restraint System (FFCRS), and a validated Hybrid III 3-year-old ATD. A battery of pretensioner loading conditions was applied at the shoulder belt ends to elucidate the possible benefits and dangers of pediatric pretensioner use. Data from the finite element simulations was compared with physical testing data in order to validate the model and draw conclusions. Data analysis is ongoing however initial interpretations are promising and show improved injury outcomes within a range of loading conditions. Future work could include analysis of oblique impacts, and variable pretensioner activation times.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Mohammad Abou-Ghazala
University	George Mason University
Title	Postcolonial Implosion: Why Do Postcolonial Nation States Fail?

The relationship between the lasting effects of colonialism on postcolonial nation states and the failures of the postcolonial states, the majority of which embodied some sort of authoritarian state structure, to construct a functioning and stable society has for the most part been discussed from either the vantage point of history and international affairs, or from ideological discursive mechanisms hindering the development of legitimate civic space in the postcolonial nation. While the insight from such formulated investigations is useful, it fails to incorporate these vantage points into a discourse on the relationship between, on the one hand, the failures of postcolonial authoritarian nationalist ideologies to engage on a mass scale the common people in a civic society, and the geopolitical realities that added another layer of repressive forces on the common citizens, that of imperialism, on the other. In this research, a closer look is taken at the crucial moments of the rise of the postcolonial nation state, which inherited colonial institutions of repression, and nationalized their use for the sake of post-colonial nationalism; furthermore, the dialectical interplay between precolonial modes of identification and post-colonial national identity will be interrogated with the aim of predicting the stability of the nation-state post-independence. The stability, or lack thereof, of postcolonial nation states appears to be explained in part to the failures of postcolonial ideologies to resonate among the common people, which only exacerbated postcolonial tensions stemming from historical configurations which propped various militaries and dictatorial regimes, and indeed entrenched them against the common people, with the political prowess awarded through arms flows and weapons networks.

The discussion will revolve around constructing a model for ascertaining governmentality in post-colonial nations and identifying potential fault lines which encumber their development post-independence: this will be done in a variety of ways, namely, by analyzing the dialectical relationship between the government and the people in two case studies (Syria and Egypt), complimented with an analysis of their respective political economies. In this way, the post-colonial regime can be better understood as a dynamic, if not entropic, entity, and general tendencies can be observed in both similarities and differences.





Author	Mishma Abraham
University	Queen Mary University of London
Title	Variation of carbon storage and tree allometry across London's urban forests
Carbon storage in urban trees can be one of the many ways to tackle the significant problem of greenhouse gas	

Carbon storage in urban trees can be one of the many ways to tackle the significant problem of greenhouse gas emissions in urban areas. However, the current offsetting capacity of urban trees is very low and hence more research needs to be conducted into how to enhance this storage. My project examined the allometric relationships of diameter at breast height (DBH), tree height and canopy extent for urban trees in London by categorising them into different forests: leisure, attached and street forests. Carbon storage was also calculated and correlated with the above allometric parameters. Results showed that leisure forests had trees with the greatest DBH and canopy extent while the tallest trees belonged to street forests. This pattern may be a consequence of availability of space for tree growth and intensity of maintenance regimes. Carbon storage was found to vary within urban forests probably as a result of variation in allometric relationships. Species that were found in multiple forests had a wide range of DBH, canopy and height values, which suggests that variations in environment and maintenance regime affect tree morphology greatly. This could be taken into consideration for urban planning where species must be planted in appropriate forests based on their allometry so as to avoid unnecessary maintenance. The study also revealed that there was a lack of accurate allometric equations for London Plane, one of the most commonly found trees in London thus revealing the need to strengthen urban forest research.





Author	Flynn Acworth and Vasilis Katos
University	Bournemouth University
Title	Cryptocurrency and Cyber-fraud: An analysis anti-fraud controls on digital currency exchange websites

The proliferation of digital cryptocurrency has given new avenues to cybercriminals for performing illegal activities. The difficulty of identifying an individual in cyberspace is commonly referred to as the attribution problem, and weak verification and anti-fraud controls in any system that handles currency online is adding to this problem. In this paper we investigate the modus operandi of attackers using the services provided by a popular digital currency exchange website. We use this website to investigate how easy it would be to bypass fraud controls. Early findings show that the misalignment and lack of harmonisation of security checks between the different vendors and beneficiaries within this system result to varying levels of risk and contribute to an ecosystem with inadequate security standards.





Author	Erica Adamns
University	Bournemouth University
Title	25 Foot Fear: Monstrosity in Jaws (1975)
Jaws (1975) has been considered a catalyst that provokes primal fear within the psyche of viewers for over 40 years (Colwell 2015). The fear constructed in Jaws (1975) is a result of the monstrosity director Steven Spielberg chooses	

(Colwell 2015). The fear constructed in Jaws (1975) is a result of the monstrosity director Steven Spielberg chooses to adopt. The 25-foot Great White shark reflects Shildrick's (2002, p.28) contentions that a monster is 'inhuman' and 'unnatural', however it's unnatural appearance does not place it exterior to nature. This contention will be explored through the 'Hitchcockian' camera techniques used by Spielberg to provide the audience with the illusion that they are the predator (Brode 2000; Kermode 2015). Halberstam (1995) suggests that characters both fear and desire the presence of a monster, as it releases them from the restrictions of orderly life. By analysing the dialogue of the three protagonists, a difference in the perceived monstrosity and their emotions towards the predator further builds suspense and uncertainty. Similarly, Tudor's (2010) assumption is that monsters doubly encourage interest and revulsion. In Jaws (1975), the portrayal of humans as prey has influenced audience's connotations towards Great White's as a species, but also encouraged an interest in shark welfare (Colwell 2015; Pearce 2015). The tension between fascination and recoil is represented in the iconic music of the film, orchestrated by John Williams. Audissino (2014) compliments arguments concerning suspense in Jaws (1975), suggesting the music is able to be manipulated to create tension and imagination in the audience. As a result of the techniques adopted by Spielberg (1975), audiences are encouraged to re-evaluate the possibilities nature may hold.





Author	Zara Ahmed
University	University of East London
Title	The mainstream media's portrayal of young Muslim women in the UK.

This investigation aims to critically analyse the mainstream media's representations of Muslim women, in British society, in particular the researcher will be analysing tabloids such as The Sun and The Daily Mail. There are essential elements which the researcher has drawn upon in the research, which include the manifestations of Muslim women being linked with terrorism as well as the notion of Muslim women being perceived as a threat to 'British values.' In order to gain a more representative response, the researcher has utilised a multi-method approach, which consists of both quantitative and qualitative data. This investigation will consist of both a focus group and a media analysis.







Author	Mariam Al Khanji
University	Zayed University
Title	The influence of social media on cosmetics: purchasing behavior among young UAE female consumers
of 6-7% compa olds. (Hanif, 20 consumer beha sharing and int Schiffman and products and s research on co hypothesis sug purchase beha likely consume research their accurately ider printed questio	nited Arab Emirates cosmetics industry growth rate exceeded that of the world recording an increment ared to 4.2%, respectively (The Gulf Times, 2015). Most social media users in the UAE are 18-21 year- 17). Therefore, this research investigates the relationship between social media and the cosmetics avior of 18-24 years old females. Social media encompasses information, experience, and opinion teraction on online social platforms, which evolved to cover beauty topics (Hayta, 2011). According to Kanuk (2010), consumer behavior is the process of searching, assessing, consuming and discarding ervices expected to satisfy one's needs. This study is of significance as it adds to the growing field of nsumer behavior and social media in the Arab region, which is limited compared to the west. The first gests a significant positive correlation between the time consumers spend on social media and their vior. The second hypothesis advocates the more recommended a product is on social media, the more rs will buy it. The third hypothesis suggests that consumers are more likely to shop online, if they products online. An online pilot study surveyed 37 participants aged between 18-28 years old, failed to thify their gender and answers. Thus, the main quantitative cross-sectional study distributed a refined ponaire of 24 demographic, socioeconomic, and psychographic questions to 56 university students, and ed using SPSS. Results and future implications will be discussed.





Author	Mariam Al Marzouki
University	Zayed University
Title	Sustainable behavior among Zayed University female students
The concept of sustainability drew the attention of scientists since human beings started to consume natural resources more than what earth could possibly provide. The aim of this study is to investigates Zayed University female students' behavior awareness and attitude toward environmentally friendly and sustainable practices. The	

female students' behavior, awareness and attitude toward environmentally friendly and sustainable practices. The focuses on the behavior that might cause a positive impact on the environment. A questionnaire was developed and piloted on 12 Zayed University female students, while the actual research will target 100 ZU female students, as a future sample population. This presentation explains the proposed quantitative study and focuses on its design. The questionnaire explores the participants' sustainable values and standards that were interpreted and reflected on in their daily practices. The pilot study showed that the participants were aware of how to practice sustainability. Yet, they failed to behave in a sustainable manner on campus due to the lack of motivation. Once the full study is completed successfully, it might provide information to better design awareness campaigns and university extracurricular activates that would help students education, raise their awareness about sustainability, increase their knowledge of innovative skills and values, and promote their responsibility towards sustainable development.





Author	Sabrina Alam
University	Queen Mary University of London
Title	Dark matter in dwarf spheroidal galaxies

The Lambda CDM model is known as the standard model of Big Bang Cosmology, where Lambda is the cosmological constant and CDM is 'cold dark matter'. Computer simulations have been made using the LCDM model which show the evolution of the universe from a short time after the big bang to now, providing an almost accurate representation on a large scale. However, there are some discrepancies for small galaxies which put the LCDM model into question. One problem is the 'Missing Satellite Problem', which predicts that there should be more dwarf galaxies than actually observed. Another is the 'Core-Cusp problem,' where computer simulations predict a 'cusp' of rising dark matter density within the centre of dwarf galaxies whereas observations show a flat one.

The problems with LCDM on a small scale might indicate the need for major revisions, either by modifying the properties of dark matter (such as Warm dark matter or self-interacting dark matter) or more radically, such as modifications of general relativity.

Using Python, I will take analytic formula for dark matter profiles and calculate rotation curves for dwarf galaxies. By doing this we can start investigating explanations for the discrepancies within the Lambda CDM model and gain a deeper understanding of dwarf galaxies.





Author	Leanne Alie
University	Coventry University
Title	How can Virtual Reality Experience affect consumer behaviour through the use of Head Mounted Displays?

## 1) Research Objective

The objective of this study is to examine the impact that virtual reality (VR) through head mounted displays (HMD's) has on student's buyer behaviour.

# 2) Research Questions

- What are student's perception of (VR)?
- What is the impact of VR on student's buyer behaviour?
- How does the use of VR affect student's attitudes towards an organisation?

- Examine how VR affects student's cognitive state - does this effect buyer behaviour or is it just purely entertainment?

## 3) Importance of Topic

There is a growing demand to understand the psychologically relevant elements related to VR as VR devices have recently become more popular and affordable (Bun, et al, 2015). There is limited literature which explores the components of VR and the effect that this has on marketing outcomes such as purchase behavior (Sarkela et al, 2009).

#### 4) Literature Review

The full literature review focuses on online customer experience, interactivity, and presence as drivers of VR and purchase intention as the main outcome of VR, developing on pioneering early research in the field by Li, Daugherty and Biocca (2001).

# 5) Methodology

- Two focus groups, of six - eight people per group. The participants will be students of Coventry University.

- Each participant will use 3 different VR devices: Google Cardboard, One Plus 2 VR headset and F-PACE VR system to view one VR marketing campaign.

- Each participant will also view videos of VR case studies.
- Participants will be asked questions in regards to drivers and outcomes of their VR experience.

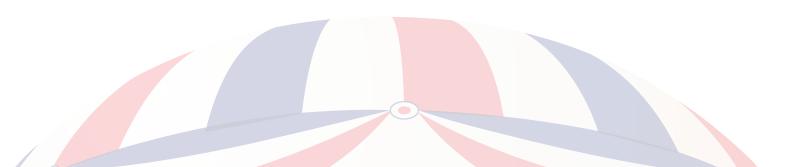






Author	Sarah Allcock
University	Bournemouth University
Title	Preparing for the worst: Disaster Management Plans of Libraries, Archives and Museums.
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Disasters can happen in any place and at any time. They might be natural or man-made, but either way wreak havoc wherever they occur. An example of this is the fire at the National History Museum of Delhi in 2016, that destroyed the entire collection. This research looks at how effective disaster management plans are in protecting the heritage found within archives, libraries and museums from the impact of natural and man-made disasters. The study will focus on a series of case studies covering fire, flooding, and conflict in order to look at how a range of institutions responded to the disaster they faced, whether they had a disaster management place in place, and if so, how useful was it in times of emergency. The disasters looked at span a wide range of countries, from the UK to the Middle East and the USA. This research aims to highlight the importance of disaster management plans in the protection of cultural heritage. The results are expected to show that places with up to date, detailed disaster management plans are more effective at protecting/saving their collections than those places without one, or an outdated one.







Author	Bronwen Allen and Prof. Tamsin Ford
University	Plymouth University
Title	A study into the fidelity of the Incredible Years' Teacher Classroom Management Programme

Fidelity is 'the degree to which an intervention's delivery adheres to the protocol originally laid out'. It is important in the study and delivery of all behavioural interventions, including educational ones, to check that the intervention is consistently delivered as intended to a high standard. Despite its importance, relatively little research on interventions has included an assessment of its fidelity. Exeter University Medical School's Child Mental Health team is studying the effectiveness of the Incredible Years'® Teacher Classroom Management Programme using a cluster randomised controlled trial, called STARS. Such teaching programmes are important to study as teachers and children are becoming increasing stressed and bad behaviour in classrooms is escalating. As a part of STARS, we aimed to create a reliable and valid checklist to assess the fidelity of six courses delivered for 60 teachers. The checklist was devised over several drafts using recordings of the feasibility groups of the STARS trial and the programme's own manual. It was devised by two researchers to link the aims and curriculum of the programme to how closely the group leaders adhered to the programme. The sessions were measured by observing video recordings of a half-day section of the six-day programme on Incredible Years Time Out method. At least 25% of sessions will be coded by two researchers independently to test the reliability of the checklist. The results will explore fidelity in relation to child and teacher outcomes when the trial is completed.





Author	Patrick Allen
University	Plymouth University
Title	Legal high use among adults in the South-West rave/party community: implications for UK drug policy

The UK government has struggled with controlling the legal high problem since the emergence of mephedrone in 2009. Academic research has provided detailed knowledge on how people perceive these substances, mainly focusing on mephedrone, but has yet to identify a viable solution to escalating usage. This research aimed to determine young adults' current perceptions of legal highs and assess how this might help government shape current and future policy more successfully. Qualitative research was undertaken using in-depth, semi-structured interviews with experienced drug users from the South-West rave/party community, an un-researched hidden community. Interviews focused on: reasons for use, perceived risk, moralistic interpretations and the impact of legislation.

The findings made notable contributions to supporting and expanding upon previous research, particularly regarding the perceived risks of legal highs versus illegal alternatives. However, the greatest contribution was in laying a foundation of theory around an under-researched topic; the morality of use. Here it was found that to keep within their own moral parameters, experienced users focused on contextual safety and moderation based on a perceived risk of their use affecting others, rather than on concerns about legality. Since the findings indicated that the proposed supply control policy (since implemented) was unlikely to deter experienced users and only increase interest in illegal alternatives, it recommended a legislative framework concentrating on decriminalisation. However, it noted that the politically charged atmosphere dominating drug policy creation would likely hinder this ever being implemented.





Author	Haneen Alosert, Fairooza Alam, Cecile Geier, Mathilde Thoulouze, Cristina Montero Barrionuevo
University	Plymouth University
Title	Achieve 5% of the current UK transport fuel requirement with bioethanol from sugar beet pulp and sugar beet

Due to increased pressure of climate change finding and utilising a sustainable and renewable source of fuel is essential. Our aim is to produce 5% of the current transport fuel in the UK. In this process we will be using sugar beet pulp which is a waste product from the sugar industry in the UK, this way our process has potential to be cost effective and sustainable because we are not competing with food production. However, this is a trade off as pre-treatment steps are required to form fermentable sugars from pulp. In addition we will need to use a small fraction of sugar beet juice in order to fulfil the demand. The total amount of bioethanol produced from SBP is 1.46MT our process allows us to sell bioethanol at a price of  $1\hat{A}$  /L. To improve our process we will use immobilised enzyme and recombinant yeast cells. This will reduce our cost. Another improvement is utilising the vinasse which is a huge by-product of the process. Vinasse can be used to make methane gas which can be used within the process; making the process as effective as possible. Furthermore, the use of sugar beet compared to petrol as a fuel source reduces greenhouse gas emissions by 40.6%, fulfilling the sustainability requirement.





Author	Maria Amodeo
University	University of Leeds
Title	Misunderstanding art

'I could do that', 'What does that even mean?', 'I just don't see the point'. These are words that we could easily hear when we talk about contemporary art; the fact is that the artistic trends of the last century have more and more distanced themselves from the faithful representation of reality, toward a symbolic and conceptual one instead, and it is undeniable that art has become more unintelligible.

Is art aware of being 'difficult', most of the time and for most of the people who don't have a specific artistic education? Do artists consider the possibility that the audience may not understand their works? How they engage with that? How does it affect art itself?

In my presentation I will try to give an answer to these questions, briefly analysing the recent events which involved two street-artists, Banksy and Blu; they both have been misunderstood or misinterpreted, but they reacted in two completely different ways: Blu protesting and removing his art, Banksy including the ignorance in his art and playing with it.

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Author	Sachin Amonker
University	Oxford Brookes University
Title	Comparison of interferon gamma production using different promoter and signal peptides in baculovirus expressions system

Interferon gamma release assays (IGRAs) is a test used for diagnosis of Tuberculosis (TB), however, the test can be expensive. The Interferon gamma (IFN) produced from the insect cells can be used as a positive control in IGRAs tests.

An insect virus that infects a type of moth was modified. It can then be used to infect moth cells in a lab to make it produce proteins. IFN is a protein released by the immune cells in response to the TB.

#### Method:

A virus was modified to have different comininations of promoters and signal peptide alsong with the gene that codes for the IFN protein.

Different combinations of promoters and signal peptides were inserted into the virus along with the gene that codes for IFN protein. The promoter is responsible for initiating the gene to make protein. The signal peptide is responsible for releasing the protein from the cell. The insect cells were then infected with the modified virus then, the proteins produced were extracted at 24, 48, 72 and 96 hours after infection. The presence and the amount of IFN produced was detected by a western blot, which is a technique that is used to identify and measure specific proteins in a mixed extract.

#### Preliminary results:

It is not possible to know which promoter and signal peptide combinations will be more effective in producing IFN than the others. However, the Hi-5 cells is expected to have a higher yield of protein.

#### Conclusion:

Therefore the baculovirus expression system could successfully be used to produce the positive control, this method will be more cost effective in producing the external quality control for IGRAs.





Author	Lewis Anderson, Daniel Sykes, Kenneth White
University	London Metropolitan University
Title	The synthesis of monometallic Iridium (III) complexes and their application towards cell imaging

The emission of light from heavy transition metals has produced research in many areas of chemistry. Iridium (III) complexes have been widely used for single light emitting devices and cell imaging. Substituting different groups (H, F etc.) on the cyclometalating ligands makes it possible to tune the colour of emission. Long lived emissions lifetime allows complexes to emit a spectroscopic signal that is observable through time gating techniques. This signal is well beyond the auto- fluorescence of the body. The aim of the project was to try to manipulate the synthesis of monometallic Iridium (III) complexes and study new binding moieties within DNA.

The complexes synthesised were measured using a fluorimeter and characterised through NMR. Additionally, the complexes were sited within an in vitro cell culture to investigate the resulting emission properties shown within the cells. The prospect of such research could potentially advance the detection of tumour cells and their location within tissue samples from manipulation of the DNA binding affinity for the complexes.





Author	Nicole Anderson
University	Newcastle College
Title	The Truth Behind the Drug: Legal Highs

Novel Psychoactive Substances, commonly translated to 'Legal High' drugs have become a popular trend within the United Kingdom that until 2016 were not monitored under The Misuse of Drugs Act 1971. In January 2014, a study was launched investigating the correlation between vulnerability, worklessness, homelessness and an addiction to non-illicit substances within Newcastle upon Tyne. The results were alarming; confirming that an increased percentage of the homeless community were consuming legal high drugs and were interchanging illicit substances for this cheaper, legal alternative.

The current research proposes to use interviews with the police, nurses, support workers, doctors and drug services to systemically expose and verify the vulnerabilities brought about by non-illicit alternatives to controlled drugs to which have been presumed innocuous by consumers. The research also investigates the potentially unenforceable 'Psychoactive Substance Act 2016' implemented to illegalise these recreational drugs.

Legal High drug users are now be forced to obtain these substances from criminal drug dealers rather than stores leaving users vulnerable to crime and further endangerment. This contradicts the original principle of the 'Psychoactive Substance Act 2016' to safeguard society from the dangers of legal high drugs. Particularly when there have been no action plans to further prevent risk of black market distribution and provide knowledgeable, wellinformed professional provision





Author	Louis Andre
University	UCL (University College London)
Title	A finite or infinite human consciousness? A philosophical and technological approach.
One of the most critical dilemmas of human nature is to define itself. Through the first lines of Critique of Pure	

One of the most critical dilemmas of human nature is to define itself. Through the first lines of Critique of Pure Reason, Kant declared « Our reason has this peculiar fate that, with reference to one class of its knowledge, it is always troubled with questions which cannot be ignored nor answered, because they spring from and transcend the very nature of reason. » However, rapid progress in computer science has expanded and surpassed all expectations. Even then, contemporary thinkers warned Humanity about the existential threat in the openness of technical revolutions as Artificial Intelligence development. But what is the real tendency?

Some of the greatest minds of History – including Locke, Descartes, Hobbes or Aristotle – have given their own interpretation to rationalize and formalize human consciousness, whereas scientists tend to associate the mind with the brain. Could a machine think, or human mind compute like a machine? Alternatively, researchers try to explain human consciousness by modelling the dynamics of the neural system that generates it, with Computational Intelligence. One of these attempts is a system called Artificial Neural Network, that simulates the basic functioning of the natural neural network operating in the human brain. I will expound and illustrate the pertinence of this model, and how it constitutes a fascinating interpretation to consider an 'artificial consciousness'. Through a large and diverse spectrum of readings and analysis, my research project's aim is not really to find systematic answers to puzzling problematics, but to stimulate thought-provoking questions in this regard.





Author	Katherine Angeloni and Jonathan Williams
University	UCL (University College London)
	Rehabilitation programme to reduce Chronic Ankle Instability: What can be learned from the literature?

Background: Chronic ankle instability (CAI) is defined by a recurring giving way or sensation of joint instability of the ankle, usually after repeated episodes of ankle sprain. Longer lateral ankle muscle reaction times (latency) have been observed in people with CAI. Several studies have suggested that reducing the latency of these muscles can reduce the amount of recurrent sprains, however no synthesis exists to determine the efficacy of a targeted rehabilitation programme.

Objective: To determine the effectiveness of rehabilitation on reducing the latency of the lateral ankle muscles in individuals with CAI.

Method: A systematic search of SPORTDiscuss, CINAHL, Science Direct and MEDLINE complete was conducted in October 2016. 6 relevant studies were identified for review and critically appraised using a modified Downs and Blacks critical appraisal tool.

Results: Four rehabilitation programmes comprised of wobble board training, one mixed wobble board training and strength training, and one was strength training alone. An improvement in lateral ankle muscle latency was found in all wobble board training programmes. No improvement was found in the strength training programme. Four of the five studies that demonstrated an improvement in latency were statistically significantly different. Overall, there is moderate to strong evidence illustrating that a rehabilitation programme can decrease latency in CAI.

Conclusion: The results show that wobble board training has a more favourable outcome on lateral ankle muscle latency than strength training. Further research needs to determine the optimum exercise protocol, and whether this leads to a decrease in CAI symptoms long-term.





Author	Carl Anstey
University	Bournemouth University
Title	Dual-task interventions for improving spatio-temporal gait parameters in community-dwelling older adults: a systematic review of the literature.

## Background:

Impaired gait during the performance of simultaneous cognitive motor tasks is associated with a greater risk of falls in community-dwelling older adults. However, the benefit of interventions to address this impairment has yet to be determined.

# Objectives:

To determine the efficacy of simultaneous dual-task interventions to improve spatio-temporal gait parameters in community-dwelling older adults.

#### Methods:

The mySearch database was systematically searched in October 2016. Critical appraisal was conducted using a modified version of the Downs and Black quality index.

#### Results:

Five articles met the inclusion criteria. Compared to exercise, four studies demonstrated that dual-task interventions significantly increased gait performance whilst gait was measured under dual-task conditions. One study observed significant improvements preceding exercise. Under single-task conditions, both exercise and dual-task interventions were found to be equally effective at improving gait. Overall, there is conflicting evidence that dual-task interventions are more effective at improving dual-task gait parameters than exercise in community-dwelling older adults.

# Conclusions:

The findings of this review reflect the widely held notion that exercise is effective at improving gait parameters under single-task conditions. Dual-task intervention efficacy may be dependent upon training specificity and the physical ability of the older adult. Further research should aim to determine the most effective package of dual-task intervention for improving dual-task gait parameters in sub-groups of community-dwelling older adults.





Author	Aisling Armstrong, Dr Joanne Thompson & Ms Anna White
University	University of Sheffield
Title	Supporting The Support Workers: An Exploration of Burnout In The Cancer Support Centre

#### Background :

'Burnout' is one of the most common manifestations of distress amongst healthcare workers, with oncology health professionals cited as being at particular risk.

## Aims:

We aimed to (1) gain insight into the work experiences of Oncology Support Staff (SS), focusing on the emotional impact of their work, relationships with patients and colleagues, and risk of burnout, and (2) gather data to shape the development of possible emotional support programs.

## Methods:

A qualitative Maslach Burnout Inventory Questionnaire (MBI) was used to explore the experiences of SS in addition to a focus group meeting.

## Results:

Eight staff members returned the questionnaire and six participated in the focus group. Results from the MBI demonstrated that SS were encountering a moderate to high level of burnout, particularly in the 'personal accomplishments' dimension. Thematic analysis of the focus group identified job satisfaction, patient needs, training needs, bereavement, peer support and feeling valued as an employee as areas of interest.

#### Discussion:

Relationships with patients have a significant emotional impact on healthcare support workers in the oncology setting. The frequent experience of loss has emotional consequences such as burnout and impacts on other areas such as job satisfaction. Staff value the support gained from close team working in this setting, which is mostly informal.

#### Conclusion:

Support workers were found to experience emotional distress and a moderate level of burnout. Although further research is needed to fully understand the causes and impact of work stress, improved staff support and training is recommended.





Author	Adam Arthur and Clare Killingback
University	Bournemouth University
Title	Does the use of real time feedback enhance paediatric Cardiopulmonary resuscitation?

Background: In hospital, cardiac arrests occur in 2-6% of patients admitted to paediatric intensive care units alone. Recent studies have identified that CPR quality provided by health care professionals is sub optimal to paediatric guidelines.

Objective: To synthesise the literature regarding the implementation of real-time feedback devices in improving the quality of paediatric CPR provided by health care professionals.

Methods: A systematic search was carried out in six scientific databases (August- October) Studies were critically appraised.

Results: 5 articles met the inclusion criteria from the 177 identified. All articles were of high quality. Results indicate that real time objective feedback improves the quality of CPR. After a percentage change and narrative analysis, all studies reported a significant difference, with two reporting highly significant results (p<0.001). Real time feedback increased the percentage of compliance to guidelines for depth, rate per minute, leaning and chest compression fraction. The average rate achieving targets were more frequently achieved with an increased chest compression depth resulting in an increased compliance to guideline targets. The force, depth and incidence of leaning were significantly reduced with real time feedback. Chest compression fraction was improved but on a smaller scale with less statistical significance in comparison to the other three variables.

Conclusion: The implementation of real time feedback, yields a significant increase in CPR quality and compliance to guidelines, with depth and rate being the most consistently and greatly improved across the studies analysed.





Author	Paul Arthur
University	Bournemouth University
Title	Disguised Gothic elements in the crime thriller film Wildflower (2016)

This presentation argues that the foundation for Gothic literature, laid down by authors such as Shelley, Radcliffe, and Poe in the late eighteenth and early nineteenth centuries, can be observed in the modern day crime thriller film Wildflower (2016). Moreover, how the genre Gothic has always been ideally suited to portrayal in film and television (Wheatley 2006). The film director and screenwriter DiBella, utilises rudiments of the Gothic so as to accentuate terror, fear and horror amongst the audience, in the analysed motion picture Wildflower (2016).

Generally accepted archetypes, symbols, aesthetics, and themes associated with the Gothic which amongst others include the Christian religion, inclement weather, the supernatural, monsters, solitary vulnerable female figures, and the environment are identified as imperative by scholars (Ascari 2007; Halberstam 1995; Heiland 2004; Punter and Byron 2004; Williams 1995).

The presentation goes on to evaluate how these Gothic elements are portrayed within the film Wildflower (2016) through the close analysis of specifically selected scenes. The reading of the scenes is conducted by using the associated academic theory advocated by the above mentioned scholars. The findings show that these scenes enable Dibella to introduce Gothic elements within a motion picture, through disguised conscious cinematography.

The presentation concludes that Wildflower (2016) as an example of a contemporary crime thriller genre employs essentials of nineteenth century Gothic literature successfully, and that those rudimentary foundations are emphasised in the film through cinematic technology.





Author	Adam Asmal and Mark J T Sergeant, Andy Grayson
University	Nottingham Trent University
Title	Academic Irregularities: Investigating Student Perceptions and Support Needs

Academic Irregularities (Als) such as plagiarism and collusion have become a rising concern within Higher Education (HE). It has been found that Als have been increasing in frequency among HE for a number of years, with this possibly relating to a lack of understanding of what Als are and how they can occur. The current study therefore argues that a greater understanding of student perceptions of Als is needed and a psychometric study was developed to investigate this. The main goal for this study was to help students understand and reduce the number of Als. This was achieved in two ways: (A) an online survey involving 200 students was developed using the temporal-motivation model to measure personality traits and attitudes that predict the likelihood of committing and understanding Als. (B) student centred resources were developed to be used in tutorial sessions and as an aftercare guide following formal Al panels. Preliminary findings suggest a diverse understanding of Als among HE students, which warrant further investigation. The new resources are in use within a HE setting and have been very well received by staff and students. The implications suggest that project has succeeded in providing support to students and providing extra insight into the psychological motivations behind academic irregularities.





Author	Maddie Atkinson
University	University of Sussex
Title	Effects of covert facial familiarity on face recognition
(e.g. Valentine's respect to exist faces are encod	Infamiliar face become familiar with repeated exposure? Current theoretical models of face processing s 1991 multidimensional face space model) suggest that faces are not encoded in isolation, but with ting facial representations. Consequently, most research has confined itself to examining whether ded with reference to an 'average' face. However, in real life, we are often struck by how similar a taread person is to someone whom we already know: Virtually pothing is known about how this is

newly-encountered person is to someone whom we already know: Virtually nothing is known about how this is achieved in practice. Presently, participants (N=18) were randomly allocated, and adapted to one of three faces; Benedict Cumberbatch; a morph consisting of 50% Benedict Cumberbatch and 50% of a nonfamous face; or a wholly nonfamous face. Following adaptation, a random sequence of morphs, blends between a novel photo of Cumberbatch and another male celebrity (Leonardo DiCaprio), were presented. These contained between 38% - 62% of Cumberbatch; participants responded by indicating whether they thought each morph looked more like Cumberbatch or more like DiCaprio. The mean number of Cumberbatch responses were plotted against morph level; trends showed a strong adaptation effect for both the Cumberbatch and the Cumberbatch-morph conditions, but a weaker effect for the non-entity condition. These preliminary results imply that the face identity aftereffect (adaptation) is a relatively high-level perceptual effect, given that stimuli containing some degree of resemblance to a familiar face still produced similar levels of adaptation.





Author	Natalie Atkinson
University	Staffordshire University
Title	Persistence of bodily fluids on different fabrics post emersion
The most common hodily fluids present at major crime scenes are blood and semen. The aim of this research is	

The most common bodily fluids present at major crime scenes are blood and semen. The aim of this research is to determine whether submersion in water for different durations affects the persistence of blood and semen on different underwear fabrics (cotton, polyester and lace). Ultra-violet light (UV light), Leucomalachite Green (LMG) and Bluestar® were used to test for the presence of blood, and Acid Phosphatase (AP) was used to detect for the presence of semen. To attempt to quantify the amount of body fluid that persists on the fabric after submersion, a range of methods were applied including Fourier Transform Infrared (FTIR), digital pixel imagery and semen microscopy using Haematoxylin and Eosin (H&E) staining. Preliminary results indicate that bodily fluids can be detected using presumptive testing after an immersion period of 1 week, however the limit of detection of all testing methods will be discussed further in this paper. This research should contribute to the knowledge of the persistence of bodily fluids post submersion, which could impact the potential for biological evidence recovery in the future.

# BCUR17 25-26 April 2017 Bournemouth University



Author	Alfred Awosanya
University	Keele University
Title	The Map Is Not The Territory

#### #1

Whatever the outside world is really like, we use our senses to explore and experience it – the territory, and then take this external phenomenon and make an internal representation of it within our brains – the map. This map is based on our beliefs, values, memories, language and culture. The filters we put on our experience determine what sort of world we live in. The research behind this draws upon primary sources including memoirs, books and case reports from the US National Library of Medicine. Computational modeling also played a key role in addressing how our brains generalize. Results reveal how artificial neural networks can become more like human neural networks with a higher generalization rate. Through understanding of how humans generalize the world around, we can find more effective ways of communicating and building relationships when it comes to international relations and therapy.

#### #2

Whatever the outside world is really like, we use our senses to explore and experience it – the territory, and then take this external phenomenon and make an internal representation of it within our brains – the map. This map is based on our beliefs, values, memories, language and culture. The filters we put on our experience determine what sort of world we live in. Understanding what happens when we forget that the world is always richer than the ideas we have about it allows us to create connections among social challenges that can lead to self-actualization and self-clarity.

The research behind this draws upon primary sources including memoirs, books and case reports from the US National Library of Medicine. Computational modeling also played a key role in addressing how our brains generalize. Results reveal how artificial neural networks can become more like human neural networks with a higher generalization rate and how the actual data absorbed is mapped by the artificial network. Through understanding of how humans generalize the world around, we can find more effective ways of communicating and building relationships when it comes to international relations and therapy.





Author	Alma Baker
University	Roehampton University
Title	Kaguya-Hime, A Solo Experience of Interpreting a Narrative

This is a part-practical investigation that approaches the subject of creation and interpretation within the field of dance studies with the aim to explore dance in a wider spectrum by including theatrical elements such as voice and storytelling, and in this way, to deepen the performer's possibilities of interpreting.

The practice part of the investigation consists of a performance in which a narrative based on the Japanese legend of Kaguya-hime (Princess from the Moon) is narrated by the dancer, and the character is brought to the stage through body expression and dance/movement as well as theatrical interpretation. The performance will be followed by a theoretical presentation on the process of the creation of the self-choreographed solo, which discusses how the performer's interpretation relates to her background as well as to theories or techniques of performance, in particular by the dance-theatre pioneer Pina Bausch and by Eugenio Barba, the founder of ISTA - International School of Theatre Anthropology. The researcher has studied these masters during the process of creating the solo in order to address questions of embodiment and interpretation.

Ultimately, the performance-discussion presentation in this conference intends to lay the grounds of how the performer has undergone a process of first creating and interpreting, then analysing the work and re-interpreting it, and finally performing the solo.



# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Folusho Balogun, Dr. Christian Nielsen, Dr. Matteo Palma and Zachary Parr
University	Queen Mary University of London
Title	Design and Synthesis of New Materials for Organic Bioelectronics Applications

Bioelectronic devices can be used for example for sensing glucose for diabetic patients or sensing neural signals for diagnosing epilepsy. Bioelectronic devices, which contain a conducting polymer, are more cost effective, give clearer results and are less time consuming than other diagnostic methods. The aim of this project is to form a conducting polymer that is more soluble and hence processable than what is already available without it losing its efficiency. The advantage is that it will be easier to print onto a flexible material, thus more applicable for use on or within the human body.

Conducting polymers are generally insoluble in solvents due the rigid conjugated backbone, which limits their application. The current conventional approaches to make conducting polymers more soluble are by either adding an alkyl side chain to the backbone of the polymer or by increasing the rotational angle between aromatic groups. This will increase solubility, but at a cost of reducing the efficiency due to less overlap between I orbitals thereby making it less efficient at carrying charge. The method that we have implemented is a less common approach where non conjugated flexible linkers are introduced into the backbone of the conjugated polymer, which in this case will be an ethylene glycol group to make it more soluble and biocompatible. Various amounts of flexible linker will be incorporated into a high performing model polymer and the resulting materials will be characterised and subsequently tested in bioelectronic sensors and benchmarked against the model polymer.





Author	Khawla Balooshi
University	Zayed University
Title	MMORPG Games: Gender Identity's Influence on Character Customization in Dubai

Massively Multiplayer Online Role Playing Games (MMORPG) provide players freedom to explore virtual worlds. These games focus on character development and decision-making such as choosing party members around the world through online communication. Internal and external factors influence customizing characters in MMORPGs. Gender identity is one of the internal factors because it is inside the person's self, whereas gender roles are external factors that revolve around the individual.

The aim of this study is to answer is the following question: Do gender identities influence decisions in creating characters in MMORPGs? The objective of this research is to analyze the relationship between gender identity attributes and character creation in Emirati society. Qualitative and quantitative measures were used to understand this phenomenon. Online surveys were distributed among 63 Emirati both gamers and non-gamers. The questionnaires had six demographical question and two sections related to gender identity attributes in the real world and the virtual world. 41 participants are females, and 22 are males. 66% of the participants are between 18-24 years old, and 86% of the participants are single. Interviews were conducted with two gamers, and a game developer.

Preliminary findings indicate that Emirati players tend to choose western features, such as blue eyes and blond hair, rather than local ones, and further results will be discussed in the presentation. More research on identification and immersion is important in understanding gender identity and society through character creation in gaming.





Author	Nicholas Barber, Dr. Loÿc Vanderkluysen, Dr. Anne Jay
University	Drexel University
Title	A Refined Estimate of Lava Flow Volume of the Deccan Traps (India) Using Geographic Information Systems
The Deccan Trans continental flood basalts erupted onto the Indian peninsula at ~66 Ma extending from southern	

The Deccan Traps continental flood basalts erupted onto the Indian peninsula at ~66 Ma, extending from southern India to the border of Pakistan. Previous research has been lacking in precise, spatially referenced estimates of basalt flow volumes, a metric critical for accurately determining the amount of degassing that took place over the course of the eruptions and their subsequent environmental impact. We utilized the analytical functions of the mapping software ArcGIS to construct high-resolution volume estimates for individual sections of some of the northern regions of the Deccan known as the Malwa Plateau and the Mandla Lobe. Our initial findings produced a combined volume of < 2400 km^3 for the whole of the Malwa. This estimate is much lower than previous estimates for total Deccan volume (~500,000 km^3), but the lava flows of this sub-region are much less laterally extensive than other regions further south.

These initial findings are promising, and suggest that Geographic Information Systems (GIS) can be a key tool for interpreting the architecture of large igneous provinces (LIPs) like the Deccan Traps. We plan to integrate rock core and stratigraphic data into updated volume estimates in order to determine average eruption rates for individual Deccan flow formations. The work presented here will have significant consequences in understanding the pattern of gas release to the atmosphere resulting from the Deccan volcanic eruptions, and the role they may have played in the end-Cretaceous extinction and post-extinction ecosystem recovery.





Author	Abbie Barnes
University	Bournemouth University
Title	Police Officers' Perceptions of Mental Health Training

Funding has been cut, resources are overstretched and mental health services across the UK are limited. Thus, the national police force is often the first to the scene of a distressing incident, triggered by a mental health issue. Police officers adhere to the Oath of Honour to care for the community. Up to 40% of this care now extends to a critical role of responsibility when an individual is in mental health crisis. Despite the magnitude of policing resources being used in cases related to mental health, the long-standing issue of appropriate training for officers is still proving problematic as mental health training remains secondary and lacks consistency.

Previous research has effectively tested localised training models and investigated alternative training methods. However, these training techniques are typically designed from a third-party perspective rather than utilising officers' personal experiences to develop training which is fit for purpose. The current qualitative research project aims to explore police officers' perceptions of mental health training from their own perspective through interviews and a supplementary piloted online questionnaire. Through Thematic Analysis, key emerging themes will be identified and categorised in an attempt to propose a sufficient formula for a follow-up questionnaire. This could be circulated nationwide to generate a quantified understanding of the type of training and content required by the UK police force. In turn, an effective standardised training scheme could be designed and implemented to ensure consistency in both knowledge and situational approach of all police officers.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Mustafa Basol, Tuba Rana Caglar, Hifa Gulru Caglar
University	Bezmialem Vakif University and Istanbul Yeni Yuzyil University
Title	Formate May Play A Key Role In Patients With Early Kidney Injury

Kidney injury is loss of nephrons caused by various reasons such as hypertension, uncontrolled diabetes and other numerous systemic and vascular diseases. Evaluation of kidney function is therefore very important for diagnosis and treatment. Glomerular filtration rate (GFR) is the best marker for kidney injury. Substances found in serum that are filtrated and excreted through kidneys such as urea and creatinine are used for estimation of GFR. However these parameters are measurably changed only after an important part of the nephrons are already lost. Hence parameters that could be helpful in determination of kidney injury earlier in the course of the disease are important.

The aim of the study was to investigate a possible marker, formate, for early renal injury and evaluate its relationship with the currently used parameters. 90 patients admitted to the nephrology department were included in the study. Formate ion, urea and creatinine levels in 24-hour urine samples were evaluated. Modified enzymatic spectrophotometric method was performed for formate; urea and creatinine levels were determined using commercially available assay kits on an auto-analyzer. 24-hour urinary formate levels were significantly correlated with urea and creatinine levels (p <0.001, p<0.05, respectively). Our data suggest that increased formate levels in the urine might reflect glomerular damage. Formate ion is a very small organic acid with the molecular formula of

HCOO-. Being very small it could be easily filtrated in case of early glomerular injury. Therefore, urinary formate level may be a useful indicator of the severity of kidney injury.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Daniel Bass
University	University Centre Peterborough
Title	An evaluation of the effectiveness of Maersk's Social Media

The use of Social Media for business - to - business (B2B) firms has been contested for many years. Some theorists propose some products don't require branding and argue not only is the use of social media in this case unnecessary, it may risk confusing consumers. Other theorists, however, believe engaging in social relations allows companies to access embedded resources, enhancing the expected returns of the commercial instrument.

How effective is Maersk's use of social media? The objectives of this research enquiry are to: analyse the public opinion formed from Maersk's social media activity, discover and define the purpose of Maersk's social media posts, judge the limitations of Maersk's online presence and identify the key attributes of Maersk's online profiles.

Social Media now has reach far greater than traditional media, providing a great platform to build brands. In today's ever - changing world, the companies predicted to succeed in the market are those fully engaged with Social Media and strategically responsive in its utilisation.

Neither interpretivist nor positivist approaches will provide sufficient level of analysis required for the research project, so a pragmatist approach will be adopted. The sources for research will be: Social Media, Peer - Reviewed Journals and Case Studies.

One expects to find that Social Media has a positive correlation to several aspects of Maersk's business, such as: increased brand awareness, increased staff motivation and increased customer engagement. These positive impacts will be a result of a combination of Social Media Content and Social Media Optimisation (SMO).







Author	Jasmin Bath
University	Queen Mary University of London
Title	The Un-United States: How egocentric sectionalism caused the secession of eleven states in 1860-61

What caused eleven states to secede in 1860-61? This question is something which has been debated among historians since the American Civil War erupted in 1861, with most arguing that slavery was the cause of secession and the subsequent Civil War. However, this research tries to refocus this debate, claiming that Egocentric Sectionalism caused the secession, with slavery, despite being an important factor, not alone sufficiently explaining the origins of this event. Egocentric Sectionalism is the idea that one section is more deserving of dominance within the executive, judiciary and legislative branches of Government, because of their distinct social, economic, and political differences within the Union. Therefore, the cause of secession and the Civil War were rooted much more deeply in society than most historians' research permits.

This research will examine events to explore how egocentric sectionalism became a divisive factor in the breaking up of a nation. By investigating events such as the Colonisation period, the 1850 Compromise, The Kansas-Nebraska Act, and the Election of Abraham Lincoln; the development of this sectional struggle will be routed out to explain why catastrophe struck in 1860-61.

By using primary and secondary sources from places such as; the Library of Congress archives, the American Presidency Project, and the Yale Avalon Project, I will try and shine a rather different, but somewhat needed light on this epochal event. Egocentric Sectionalism will not only explain why Secession happened, but also the inherent problems within the United States during this period, and perhaps ever since.





Author	Lauren Batty
University	University of Huddersfield
Title	Pedophilia: Changes in understanding from the 1970s to now.

There is little research that identifies how we understand pedophilia (Ames & Houston, 1990). In society, we recognize it as a contemporary issue, yet, we seem to obtain differing opinions of its meaning, causes, consequences and behavioral attributes. Therefore, the aim of this research was to investigate the understanding of pedophilia from different perspectives whilst assessing whether the understanding has changed since the 1970s compared to present. The 1970s is a decade that is frequently referred to when discussing the topic of pedophilia, and so, this research seeks to compare and identify reasons for changes in understanding.

To do this, the qualitative research method of interviews has been conducted with a sample of 9 participants who have lived through both eras in question. The data collected has been thematically analyzed to establish a relationship between the understanding of pedophilia in correlation to social, cultural and political changes over a period of 50 years. It was found that, in general, people recognized pedophilia to be the same issue as it was in the 1970s; regarding what it is and the effects that it has upon children. However, changes in understanding are observed in relation to the perception of pedophilia, in contemporary society, and the way that society deals with the issue now compared to previous years.





Author	Jessica Baugh, Caroline Sturdy Colls and Dean Northfield
University	Staffordshire University
Title	Analysing forensic archaeological techniques applied to mapping and recording Oswiecim Jewish Cemetery.
The International Holocaust Remembrance Alliance (IHRA) is currently funding a two-year reconciliation project	

The International Holocaust Remembrance Alliance (IHRA) is currently funding a two-year reconciliation project exploring cultural and physical genocide in Jewish cemeteries. The first year of the project has focused on mapping and restoring Oswiecim cemetery, Poland. Utilizing a range of forensic archaeological methods, the cemetery was thoroughly recorded to creating an accurate plan.

To comply with Jewish Halacha law, all techniques used were non-invasive. The techniques used consisted of ground penetrating radar (GPR), Total Station Survey and a cloud based data collection application utilising Geographical Information Systems (GIS). The latter two techniques will be used in this research.

Previously the only documentation of the cemetery was in 1997 where a visual map of the site with an accompanying gravestone inventory was created, but there seems to be some question as to how accurate this data is.

The accuracy between the non-invasive technique and the previous visual map when plotting gravestones in a Jewish cemetery will be used to identify the statistical significant difference of the gravestone positioning, by analysing the data and comparing the images on viewing platforms.







Author	Jake Baylis
University	Staffordshire University
Title	The persistence of polyester fibres on submerged garments in both moving and still water
The aim of this paper is to determine the persistence of Polyester fibres on polyester (fleece), polyester (sports t-shirt),	

cotton (denim), cotton (curtain velvet) and carpet (unknown at this time) over an 8 week period when submerged in moving (River Trent) and still water (Laboratory). Each sample consisted of five repeats and one control. The donor fibres were fluorescent and transferred onto 10x10cm cut outs of each fabric type by means of physical contact completed with hand rubs. Each sample had an initial 100-250 transferred fibres. The samples were placed into the river using a washing line method and pegged from both the top and bottom before being submerged. The number of retained fibres were counted at 2 hours, 48 hours, 1 week, 2 weeks, 4 weeks and 8 weeks. Mean values were transformed into percentages of persistence. Polarised Light Microscopy and Scanning Electron Microscope (SEM) were used in order to identify the fibre type, the SEM showed a more detailed look to see how the fibres affected the persistence. This paper will directly inform investigations involving crimes relating to water. It will help to determine if there is a need to search a body or objects for fibres that have been left in a river or lake for up to 8 weeks. It will also provide activity level information such as the time of transfer.





Author	Alicia Beesley
University	Southampton Solent University
Title	Prospect of RFID technology in retail industry: learning from a case study.
Contemporary retailers are under increasing pressure to develop technological capabilities to stay relevant in industry	

although the cost of investment is not always covered by subsequent profit. In reality, many retailers have already invested in systems to improve replenishmetnt processes but are still struggling to keep up with the developed technological environment. In this research project, I investigated a chain retailer that sells British-designed casualwear, and does not use Radio-frequency Identification or RFID technology, as a case study. For data collection I conducted four interviews to explore how the company's existing replenishment system can be improved through RFID integration. The focuses of the research were to realise approaches to cost limitations through loss prevention, increased sales through stock accuracy and availability to the customer, and finally transparency of inventory at both warehouse and store levels to improve management. The preliminary conclusions are that RFID technology would improve the stock accuracy and reporting levels in store as well as be beneficial to the staff members allowing them to focus on customer experience and sales. The findings also identify scope for further investigation, particularly for a standardised implementation approach of RFID.





Author	Reka Berkes and Cindy Moige
University	UCL (University College London)
Title	Exploring the Impact of Traffic-Related Air Pollution Along the A12 Road on the Population of Poplar

This research explores the impact of traffic-related air pollution along the A12 road on the population of Poplar, East London. The main objective is to explore mitigation measures to be implemented in the area to decrease pollutant concentrations and hence improve health and life quality of residents. The A12 road is of high importance as it accommodates major goods traffic and runs through residential areas of Poplar with several schools lining the road.

The research looks at the lack of proven health impacts related to air pollution, as the correlation between air pollution and diseases is not a well researched field, even though poor air quality is generally accepted to cause respiratory illnesses.

The main methodology involves monitoring the air quality by measuring nitrogen dioxide with diffusion tubes and measuring the particulate matter with hand-held monitors at chosen locations along the road at different times of day. Measurements are used to model the dispersion of pollutants using Operational Street Pollution Modelling, which aids in visualising the pollution problem of the area so that possible solutions can be explored.

Once the research is fully completed in March, it will act as a significant catalyst for Poplar to obtain the necessary funding to implement strategies to reduce the impact of air pollution in the area. Due to the lack of available research in the field, this research paper will also act as a point of reference for other air quality projects that aim to reduce the impacts of poor air quality.







Author	Helen Bermingham
University	Bournemouth University
Title	Bright Buoy - Exploring the use of wave energy as a power source for a self-contained navigation buoy
Currently, offshore navigation buoys are predominately solar powered, this is a heavily research renewable energy source with successful applications. Though when it comes to marine navigation can we rely on solar energy alone to guide our mariners? With the ever changing climate should we expand our energy sources for increased reliability?	
Therefore, the design of 'Bright Buoy' utilises the motion of waves to power a light signal for mariners. This is done by using a permanent magnet linear generator incorporated within the buoy which oscillates with the waves, producing	

electrical energy and thus powering the light on the buoy. The system includes a battery to store energy for times where the sea is calmer, but ultimately this device has the ability to generate electricity 24/7, unlike its solar powered competitor. The buoy itself is designed to conform to IALA regulations and functions like typical navigation buoys.

Analysing data on UK waves, calculations such as the kinetic energy of the wave, and power produced shows that wave energy can be a viable source to power the lantern and identifies relevant geographical locations.

The significance of a buoy using alternative energy sources will ensure safety for mariners when travelling around the UK, eliminating risk and increase research for further applications of this constant source of energy.







Author	Shaminder Bhandal, M. Boissinot and A Braening-Richardson
University	University of Leeds
Title	Investigating the effect of MI192 on migration of glioma cells

#### Background:

Gliomas are highly aggressive brain tumours. Their poor prognosis is due to their ability to invade and migrate. Despite a combined treatment regime of surgical resection, radiation therapy and chemotherapy most patients die within 1 year of initial diagnosis. There is an urgent need to develop novel treatments. MI192, a benzamide-based histone deacetylase inhibitor, has been identified as a potential agent to combat their invasive nature

# Methods:

The migratory characteristics and treatment effect of MI192 and the indirubin derivative 6-bromoindirubinoxime(BIO), previously shown to inhibit the migration of glioma cells, are examined in cell line U251 using 2D(immunofluorescence, live cell imaging) and 3D(spheroid invasion in collagen) assays

## Results:

In random migration, MI192 adversely affected the migratory ability of U251 as evidenced by reduced cell velocity and displacement. Immunofluorescence studies of the treated cells revealed an increase in the acetylation of tubulin, whereas proliferation, apoptosis and stemness status remained unchanged. In a 3D spheroid invasion a significant change in migration was not seen. Immunohistochemistry of the treated spheroids revealed that proliferation was not adversely affected in either the core nor migratory cells in spheroids with MI192 at 1uM. Tubulin acetylation appeared more pronounced after MI192 treatment. SOX-2 was also reduced in both cores and migratory cells

#### Conclusions:

MI192 appears to inhibit glioma cell migration via hyperacetylation of microtubules but this seems to be cell line and topography dependent. The HDAC inhibitors may prove useful in targeting migration in certain subtypes of glioma cell





Author	Alastair Bolton and Jonathan Williams
University	Bournemouth University
Title	How can the literature surrounding epidemiology of shoulder injuries in rugby union inform recommendations to mitigate this risk?

## Background:

The shoulder is the second most commonly injured area in rugby union players however, few preventative measures currently exist to mitigate this risk and there are no return to play protocols to decrease the likelihood of reoccurrence. Understanding of the epidemiology of these injuries is key to enhancing injury risk recommendation.

## Aim:

To investigate the epidemiology of shoulder injuries in rugby union and make recommendations to reduce shoulder injury risk.

## Methods:

A systematic search of SPORTDiscus, CINAHL, Science Direct, Medline and Education Source was completed in October 2016. 5 studies met the inclusion criteria and were assessed for methodological quality using the National Institutes of Health Quality Assessment tool for Observational Cohort and Cross Sectional Studies.

Results & Discussion: Studies came from 4 different countries and no consensus on the definition of shoulder injuries was observed, making synthesis challenging. All studies identified the tackle as the main cause of injury with tacklers at greater risk than tackled players. Dislocations were commonly found to be the most severe but injuries to the ACJ were found to have the highest incidence. Centres suffer the most shoulder injuries and there were no conclusive results regarding whether forwards or backs suffer more injuries.

# Conclusion:

Studies suggest that preventative measures should be position specific and focus on conditioning and tackling technique. Shoulder padding could be an effective preventative tool but only with a change in thickness laws. Recommendations should also vary for players involved at different standards to reflect varying workloads and time constraints





Author	Jess Bone, Rob Hughes; Jade Robuffo and Roger Herbert
University	Bournemouth University
Title	The discovery of a rare habitat and vulnerable species in Poole Harbour

Coastal lagoons are priority habitats in the UK and are listed under Annex 1 of the EC Habitats Directive owing to their scarcity. They are highly productive, have a very specialised fauna and flora, provide a range of ecosystem services, and are therefore valuable sources of natural capital. However, lagoons are particularly vulnerable to anthropogenic disturbance which can be exacerbated by climate change pressures.

A Student Environment Research Team (SERT) conducted a survey to characterise the species assemblage, diversity and sediments and verify the source of water at a lake that had formed behind a remote beach on Brownsea Island in Poole Harbour, UK. Core samples were taken through sediments for benthic invertebrates and sweep netting was used to assess pelagic fauna in the water column. Salinity and temperature readings were taken at various locations from the water's edge and sediment samples obtained for particle size analysis and organic content.

Lagoonal specialist fauna, including the starlet anemone Nematostella vectensis, (IUCN Red Listed as Vulnerable) was positively identified in situ. Salinity readings and visual verification of seawater inflow via a channel confirmed the formation of a new lagoonal inlet at Brownsea Island. The discovery of a rare habitat and vulnerable species could enhance the case for extending the MPA boundary to include the new lagoon. A larger lagoon exists <1km east of the new lagoon yet is under threat from sea level rise. An additional lagoon habitat could ameliorate the effects of climate change induced loss of habitat and ecosystem services.





Author	Jasmin Bonello and Max Lowenstein
University	Bournemouth University
Title	Mooting Journey: Start to Finish
Monting is a legal debate where students take the role of an appellant or a respondent within a courtroom setting	

Mooting is a legal debate where students take the role of an appellant or a respondent within a courtroom setting where they will orally present points of law before a judge. Mooting is a significant area within law for both law students and politics students, as it includes advocacy skills that are vital within the legal and political world. It unique as it is in a court setting where a decision rests on those arguments being 'persuasive', making it an area where students tend to struggle There are websites and some resources on these legal skills, however they are limited in how they chart mooting skills development. The videos are usually generic whereas, whereas mooting itself is extremely specific. Mooting is a detailed analysis of what the law means or may mean in a SPECIFIC area of law.

Building upon the recent expansion of co-created advocacy at Bournemouth University, its' mooting society together with Dr Max Lowenstein are poised to deliver significant outputs in 2017. Our aim is therefore to work with the 90 student members and analyse their progress from the beginning of their mooting journey, to the end. This will be done through surveys, diary blogs and workshops to create a final presentation and video.

Data set is based upon qualitatively gathered student perceptions regarding their mooting skills learning journey using interviews and workshops.







Author	Lukas Brggen and Philipp Roth
University	Carl von Ossietzky Universitat Oldenburg
Title	Knowing how to juggle. Bodily coordination in sports.

Our topic is the bodily coordination of jugglers. More specifically, we focus on the question how jugglers enable each other to perform juggling figures. By means of philosophical and sociological theories, we focus on the knowing how (Ryle, 1969) of jugglers and their bodily dependency (Gugutzer, 2010). As a non-participating observer, Lukas BrÄggen focused on the visible processes of coordination, while Philipp Roth, as participating observer, focused on the internal processes of learning.

As a first result, we found a bodily dependency between the different elements involved in juggling (Gugutzer, 2010). This dependency, however, exists not only between the jugglers, but also between the jugglers and the clubs. A second result is that adjustment takes place in action: The jugglers have to coordinate their actions continuously to succeed in performing the figures. The jugglers do not require much theoretical knowledge for performing juggling figures. They know how to juggle in action (Ryle, 1969). The concept of knowing how accounts for the fact that the successful performance of juggling is not analyzable as an objective competence but as an ability to act adequately in a particular situation.





Author	Oliver Boon
University	Bournemouth University
Title	'Take a minute', an audio/visual installation as reflection on perception of time and space in the modern age

Technologies such as the Global Positioning System (GPS) are used so ubiquitously today that it has become the standard of navigation. Modern navigational and transport technologies do not facilitate adventure or 'getting lost' (Cummings and Stuart 2016), arguably transforming exploration into mundane travel. It is often overlooked that the unwitting acceptance of these modern technologies has become an unintentional detriment to society, as they neglect human autonomy in favour of efficiency and ease.

A traveller's perception of time and space is formed by their environment and upbringing. The millennial generation is heavily influenced by the technologies they were brought up with and consequentially, their view of time and space is warped to incorporate the way computers perceive it.

These perceptions are challenged in my artwork 'Take a Minute' by presenting two opposing views of space and time in one cohesive artwork. 'Take a minute' is a walk on Brownsea Island documented in a photo series and presented as an audio-visual installation. Looking at the slapstick works by Faithfull (2009) and Long (2012), my work aims to mirror their goals of poking fun at 'GPS culture' and will prove travel has lost its sense of adventure.

This project demonstrates the link between modern perceptions of time and space, and how a traveller experiences their journey emotionally. Through creative practice, I find that a journey must meets the needs of the traveller, and therefore, the perceived loss of adventure in travel is due to the ever-changing needs of a modern society.







Author	Jacquetta Bridge
University	Queen Mary University of London
Title	A study on the effect on second wave feminism on fairy tale retellings

My research project looks at the ways in which Second Wave Feminism affected the portrayal of women in fairy tales. My focus is on the story of Snow White in particular and draws on a corpus ranging from the original Brothers Grimm tale, 'Little Snow White' (1812), to the Disney adaptation Snow White and the Seven Dwarfs (1937), as well as two post-Second Wave retellings: 'The Snow Child' (1979) by Angela Carter and 'The Tale of the Apple' (1993) by Emma Donoghue. I primarily focus on the character of the Evil Queen, and how her portrayal is changed with each retelling, and what this change reveals about the society from which it emerges. While there has been considerable research into feminist retellings of fairy tales focusing on the heroine of the story, research on the female villains of fairy tales has been lacking.

My research project draws similarities between the retellings and the original as well as looking at the differences in the portrayal of the Queen and what conclusions can be drawn from them. It is through the comparison of the portrayal of the queen in agency and appearance, in text and image, that I will be conducting this project. I anticipate that the effect of Second Wave Feminism on fairy tale retellings is that it is made clear that the female villain is portrayed as such as a result of the patriarchal society she lives in, rather than the inherent evil of older women.





Author	Claire Braithwaite
University	Blackpool and The Fylde College
Title	Information Overload: With technology developing so fast, do we still know the best way to present data in project management, starting with risk management?

Thousands of pounds is spent on internal communications every year 'For example, a business with 100 employees spends an average downtime of 17 hours a week clarifying communication, which translates to an annual cost of \$528,433 (Siemens Enterprise Communications.)' (Retrieve, 2016). With technology continuously advancing it is becoming harder to know what the best way to inform stakeholders is; with metrics being an important part of project management, have we lost the importance of presenting information efficiently through these technological developments?

This study focuses on an integral part of project management, risk management, to determine whether information is being communicated effectively. Risk management is often one of the projects key reporting metrics used to set success criteria and provide important funding for projects.

An experiment-based mixed-method approach is being undertaken. The experiment involves presenting data in different formats to assess whether this has an effect on interpretation. Subjects' interpretations of the presented data will then be graded quantitatively against what the data actually does portray. From this information feedback interview questions will be generated to gather qualitative data which will undergo thematic analysis. Triangulation will then be carried out to provide a rich picture of the interpretations.

Initial conclusions include potentially discovering a common data format to present risk metric data in the most efficient means. This data could possibly be passed onto other areas within project management and also other functions, overall saving time and money for organisations.



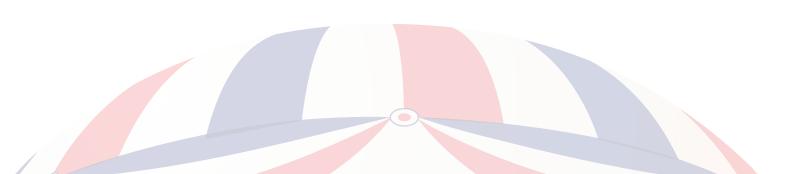


Author	J.S. Briggs, B.D. Cosway, C.O. Wort, O.D. Kayode, P.R.Culmer and N. Kapur
University	University of Leeds
Title	Development of a novel device for thrombolysis in patients with May-Thurner's Syndrome

Deep Vein Thrombosis (DVT) is the formation of blood clots in the vein leading to restriction of blood flow to the body and subsequently, tissue death. Fragments of the clot can also break off and travel to the lungs causing a more life threatening pulmonary embolism. Patients that suffer from May-Thurner's syndrome have a higher occurrence of DVT because the left common iliac vein is compressed by the common iliac artery. The blood clots that develop are usually large (L= ~15cm, D= 14-18mm) and difficult to treat.

The aim of this project is to design a device to break up blood clots arising from May-Thurner's syndrome. This is important because current treatment methods for DVT are unable to sufficiently treat these specific blood clots. Also, there is a gap in literature to test the function of such mechanical devices. Therefore, an in-vitro model with sufficient complexity to adequately represent the blood clots will also be developed. This model will allow for the testing and evaluation of new techniques and devices for their ability to effectively treat blood clots due to May-Thurner's.

Following a systematic design process, several design concepts will be accessed by a set of user-defined requirements and the in-vitro model to determine the most suitable design. The in-vitro model will consider and test the use of suitable materials such as gelatine and fibrin gels to represent blood clots. It will also consider the surrounding environment of the vein as well access to the blood clot.







Author	Gail Brown
University	Bournemouth University
Title	Can smartphone apps increase the physical activity levels of adolescents? A review of the literature.

#### Background:

Inactivity has been identified as the fourth leading risk factor of global mortality, yet it is a highly modifiable factor. Physical activity (PA) has been shown to decrease markedly in adolescents, and this decrease is maintained into adulthood. Technology can be seen as one of the causes of inactivity, however it may also hold a solution. This literature review aims to evaluate the effectiveness of smartphone apps in increasing PA levels in the adolescent population.

#### Methods:

The search for literature was carried out using six databases and by hand searching reference lists of key articles. Studies were assessed for quality and data extracted. Due to heterogeneity in outcome measures, data was synthesised narratively.

#### Results:

The search yielded 216 studies, of which five matched the inclusion/exclusion criteria. All studies were included despite the variance in quality, the results weighted appropriately. Only one controlled clinical trial noted a statistically significant change in PA using a gamified app. No significant changes were found in the higher quality RCTs or other studies.

#### Conclusion:

This review found there is moderate evidence that smartphone apps do not influence a sustained increase in PA. However there is weak evidence to suggest that gamified apps produce an increase in PA over a short period of time. It is suggested that a new focus on reporting engagement data and using more accurate PA outcome measures is needed. Further research is needed into behavioural change techniques and gamification in apps specifically concerning adolescents.





Author	Slawomir Burda
University	Plymouth University
Title	Manager's view on the value of technology and its impact on customer experience

Hospitality industry incorporates a wide range of technologies that impact the customer's experience, by changing guests' expectations.

There are clear indications of this process. For example, in recent years, social media became a widely used if not the most important tool that shapes customer's choices. Moreover, e-learning courses are used during staff training and many high tech gadgets are provided for the guests during their stay. Therefore, the increasing value of technology in managing successful hotels becomes evident.

The majority of hospitality literature focuses on the customer's perspective, however, there are only few studies examining the manager's opinions on the matter. Furthermore, those articles do not provide a comparative analyses of the technologies used by different types of hotels.

Consequently, the goal of this project is to investigate the value of those technologies and their impact on the customer's experience from the point of view of hotel managers. To this end the data was collected through a qualitative, semi- structured interviews with hotels' executives. All of the managers acknowledged the role technology plays in running of their enterprises. However, the expanding businesses' need for automation of the service resulting in dehumanisation of customer's experience was highlighted as a major problem. Therefore different approaches to counter it were observed. Nevertheless, due to the small size of the sample used, further research is recommended.





Author	Rachel Buckmaster and Athina Mylona
University	Canterbury Christ Church University
Title	Measuring the change of gene expression in mouse embryonic stem cells when applied with Trimeresures stejnegeri (pit viper) venom

Mammalian embryonic stem cells have a unique ability to differentiate towards every cell type of the adult animal. This provides a huge potential for regenerative medicine, while the research into uncovering what exactly drives the cells to either self-new or differentiate is still ongoing. Venoms are complex substances with many components including proteins some of which have close similarities with known growth factors. T. Stejnegeri (pit viper) venom was added to mouse embryonic stem cells for 2, 4, 7 and 14 days. Changes in the cells' morphology were analysed using a high resolution inverted microscope and gene expression patterns were analysed with real time PCR. The genes selected for this analysis were specific for the mesoderm, endoderm and ectoderm germ layers, which constitute the first stage of differentiation for embryonic stem cells. The presence of differentiation specific markers was also analysed on the protein level using western blot. Preliminary data showed the venom exposure of mouse embryonic stem cells initiated a differentiation towards the three germ layers within the first 2 days of exposure. Following these initial experiments, a more detailed analysis of the effect of purified venom components on the differentiation of the stem cells will pinpoint novel molecules that can influence stem cell biology and fate.





Author	Georgina Butler, Sulaf Assi and David Osselton
University	Bournemouth University
Title	Identification of drug residues in spiked drinks using attenuated total reflectance-Fourier transform infrared (ATR-FTIR) spectroscopy

## Introduction:

Drug-facilitated crimes (DFC) are increasingly prevalent worldwide. The testing of drink samples has been explored however current techniques are destructive, time consuming and require extensive sample preparation (Acikkol et al. 2009).

# Objective:

To identify drug residues in spiked drinks using attenuated total reflectance-Fourier transform infrared (ATR-FTIR) spectroscopy.

## Method:

Eight over-the-counter drugs were selected for this study. The Bruker ALPHA FTIR spectrometer was used to construct spectral libraries using the drugs and their constituents. The tablets were then 'spiked' into three different beverages; water, vodka and tea, and left for 48 hours. Sub-samples were taken from the drink at numerous time intervals and subsequently measured using FTIR.

#### Results:

When analysed by FTIR eight of the eight drug residues obtained from water (100%) and six of the six drug residues obtained from vodka (100%) were positively identified against their respective products. When spiked into tea six of the seven drug residues obtained (86%) were positively identified. Interestingly, the drug residue that did not correlate with its respective product was positively identified when correlated against the control, tea.

# Conclusions:

In summary, FTIR spectroscopy was successful in identifying drug residues in spiked drinks from herbal and synthetic products. Subsequently, it proved to be an efficient technique in detecting DFC.

#### References

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Author	Alvaro Calvo Garcia
University	Queen Mary University of London
Title	Improving the simulations for the future Hyper-Kamiokande detector
In this project Law working on the implementation of the outer detector for the lunger Kamiekande detector	

In this project I am working on the implementation of the outer detector for the Hyper-Kamiokande detector simulations. Since 1983, Super-Kamiokande has been pushing forward our understanding on neutrino physics through its different upgrades. Now, a new detector will be built, Hyper-Kamiokande, which will be 20 times bigger than Super-K. To get any useful information from Hyper-K, we need to first be able to simulate what results we can expect given our newest theories to then compare those simulations to the actual measurements. During this project the objective is to simulate the outer detector, currently missing in the simulation, and optimize its configuration. The outer detector is a vital tool to remove the external background and it can also be used to enhance the physics sample adding partially contained events, i.e. events not fully contained in the detector. At this moment, I am working on the implementation of the outer detector in the simulations, and I will soon start with the measurements on the photomultipliers to implement the data into the simulations by next March.





Author	Maria Butt
University	Newcastle College
Title	Smartphones- Unsmart Use: An investigation to explore the relationship between excessive smartphone usage and pain in the cervical region and its psychological effects on students

Recent published data is supportive of an increased prevalence of neck pain in young people as a result of repetitive movements and poor posture with use of smartphones.

Despite this, there are limited investigations to establish any psychological impact and associated correlation between the risk of developing musculoskeletal disorders and use of smartphone. This study considers these factors, as well as other predisposing factors such as degenerative diseases, chronic neck and back pain, injury to cervical spine etc. that can contribute towards pain in smartphone users, ultimately seeking a correlation amongst smartphone use and neck pain.

Quantitative data was collected from 100 randomly recruited students, of both genders, aged 18-30 years. The questionnaire obtained demographic data, usage pattern of smartphones and any symptoms of musculoskeletal discomfort that the sample reported.

A purposive sample of three students (based on the amount of smartphone usage and degree of pain reported) will take part in a 20min one to one semi-structured interview to acquire qualitative data for thematic analysis.

The use of smartphones and habitual posture conceivably associated to musculoskeletal pain, depending on daily lifestyle habits. Potentially, participants with a history of neck pain are more at risk of developing musculoskeletal disorders such as upper crossed syndrome, cervical lordosis, cervical spondylosis and cervical myalgia. The results will be of interest to GPs, physiotherapists and young people who use smartphones excessively.





Author	Xu Cao
University	Bournemouth University
Title	An exploration of knowledge, awareness, and attitudes towards nutrition and diet of people living with cancer (on remission) or beyond cancer

Background: People living with or beyond cancer are highly motivated to seek information about nutritional intake and physical exercise to reduce the complication from treatment and the risk of cancer returning, in order to improve their quality of life. Yet it is not known what information they have received, where the information came from, and whether they follow the information.

Aim: An exploration of knowledge, awareness, and attitudes towards nutrition and diet of people living with cancer (on remission) or beyond cancer.

Method: The Nutritional Knowledge, Attitudes and Awareness Questionnaire based on a previously validated nutritional knowledge questionnaire was used to assess nutritional knowledge, attitudes, and awareness of 48 participants from BACSUPS and Dorset Livewell programmes.

Results: There was significant concern that participants did not understand, or realise, the importance that the role of nutrition plays in cancer recovery. Also highlighted was the fact that the majority of participants seek nutritional information from the internet. They were also not aware of WCRF guidelines, therefore they were not following the information available in order to improve the quality of their life and reduce the risk of cancer recurrence.

Conclusion: It has been highlighted that participants did not receive nutritional information as well as WCRF guidelines. Therefore allied health professionals need to address this lack of communication as well as providing support in order to prevent recurrence and improve the quality of life to this specific clinic group.





Author	Carol Cartwright
University	Blackpool and The Fylde College
Title	Are customers prepared to pay more to help airlines to meet sustainability targets?

According to the World Tourism Organisation (UNWTO) the global international tourist arrivals are expected to rise annually by 3.3%, thus providing airlines with continued growth. This increase will ultimately result in a greater carbon footprint, for which aviation contributes 2% of all globally manmade emissions.

The airline industry is a prime target for criticism when it comes to the Climate Change and Global Warming agenda. To make airlines more sustainable, investment is needed in new technologies. The costs of these investments mean that the airline passengers will inevitably have to pay more. The balancing act between sustainable air travel and having to charge higher prices presents a dilemma, which calls for the current study.

The study will use an online survey aiming for 300 responses. The survey data collected will be supplemented with 50 semi-structured interviews at an airport in the North West of England, between December 2016 and February 2017.

The study aims to clarify the balancing act of making the airline industry sustainable. The contributions to knowledge will help to position the airline sustainability agenda and the economic reality of needing to meet the costs associated with the necessary investment into sustainable technology.

It is expected that the study will show continued growth in consumer awareness concerning airline environmental impacts. In addition, a limited willingness to absorb associated costs, dependent upon percentage increase, and highlighting a preferred method such as offsetting.





Author	Alessandro Cavallo, Victoria A. Sleight, Melody S. Clark
University	Plymouth University
Title	Insights into the embryonic shell development of an Antarctic clam

Molluscs display an incredibly diverse assortment of shells, and these biogenic structures have likely contributed to their evolutionary success. The application of âomics technologies has shed light on the molecular basis of shell formation and maintenance. Numerous putative biomineralisation genes and proteins have been identified, although their specific roles and interactions remain unclear. This knowledge will enable a more accurate assessment of the effects of changing environmental conditions on calcifying molluscs.

This project aimed to determine whether a set of biomineralisation genes identified from mantle tissue and shells of adult individuals of the Antarctic clam Laternula elliptica, was also expressed in embryos of the same species. In addition, further gene sequences were selected from the embryonic transcriptome obtained through RNA-Seq. Temporal gene expression patterns were determined using qPCR, and interpreted on the basis of the morphological changes undergone by the clam embryos through ontogeny. These data are discussed in relation to shell-development in L. elliptica and other mollusc species.





Author	Ozge Cengiz, Isabelle Mareschal and Robert Lachlan
University	Queen Mary University of London
Title	Perceptual Biases and Body Image

There has been a significant increase in the prevalence of eating disorders in Western society associated with the pressure to pursue an unattainably thin body ideal. Both sociocultural factors, such as media exposure to thin-ideal images, and perceptual and processing circuits may contribute to increasing body dissatisfaction and eating disorder symptoms.

The aim of the current study is to investigate (a) whether there is a perceptual bias towards thin body-images, and (b) whether social context plays a role in revealing such biases. We used a novel 'chain' approach in which the judgments made by one participant determined the starting point for the next participant. 100 female undergraduates were briefly presented with a computer-generated target image of a female body, and then asked to select the most similar of 6 similar models. One group was informed that their choices formed the basis for the next model in the chain, while a second group was not. We found that chains converged onto thinner models, as opposed to drifting randomly, and preliminary results suggest that this effect was stronger in the socially primed than control group. Overall, this method may provide a powerful way to track perceptual biases. Among this cohort of participants, it suggests the existence of a perceptual bias towards a thin ideal, which may be modulated by social contexts.





Author	Thomas Charman
University	Queen Mary University of London
Title	Deep learning classification of simulated di-Higgs events with TensorFlow

When probing the fundamental building blocks of our universe, elementary particles, high energy physicists encounter the problem of separating signal events in their particle accelerators from the background noise. In order to test predictions of the Standard Model of particle physics and probe theories beyond the Standard Model, some method must be employed in order to correctly distinguish signal from background. This work presents such a method, a deep neural network written in the TensorFlow machine intelligence software. Specifically simulations of two Standard Model Higgs bosons decaying to a pair of b-quarks and a pair of tau leptons are analysed. The decay is considered in the context of measurements taken by the ATLAS detector at the Large Hadron Collider.

A framework is discussed in which the problem of event categorisation in high energy physics is mapped to the capability of the deep neural networks. The mathematical basis for logistic regression classifiers, the family of algorithms that neural networks relate to, is reviewed. Details of implementing these techniques in TensorFlow are given, and technical specifications are presented for the purpose of reproducibility. Selection processes by which the neural network hyper-parameters, which are used to tune the neural network, are explained. Results of the analysis are given, showing that the classifier was able to separate data into signal and background classes with a high degree of precision. Lastly the statistical reliability of such methods is discussed both in general and relating to this analysis.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Liam Charmer, Jessica Gay, Katie Hamling and James Oglesby
University	Southampton Solent University
Title	Never regret a Fashion Choice, whatever the day!
Fashion is all around and hardly needs was availy the same suffit Variad fasters roly on a decision of what a	

Fashion is all around and hardly people wear exactly the same outfit. Varied factors rely on a decision of what a person may wear. There is a common regret about the type of outfit and the time spent for choosing it. By considering these dilemmas this project aimed to create a smart fashion advisor using Artificial Intelligence which is able to provide a personalised fashion outfit choice for a day with specific features. A mixed-method exploratory study was conducted to explore the complexities the potential consumers face while choosing their outfits, the approaches they take to overcome those difficulties, and their expectations regarding an electronic tool that can advise them in the process. The quantitative data were collected through a sixteen-item open online survey circulated through social media and the University website. Then, the qualitative ones were gained through a focus group with six participants along with interviewing two fashion experts. The study findings show a significant difference between the consumers' decisions about wearing an outfit and buying it, and also the peer influence on these factor. A prototype named 'Fashion Mirror' has been created based on these findings which is now being experimented with the target groups to understand more about its efficiency in catering the consumers' expectations and satisfaction.





Author	Joelle Cheong
University	University of Sheffield
Title	Women in the military and militarised hyper-masculinity
Throughout history, militaries have been perceived as hyper-masculine organizations. However, increasing gender equality, employment of technology and the changing nature security threats have resulted in increased female	

equality, employment of technology and the changing nature security threats have resulted in increased female recruitment in militaries worldwide. This project therefore aims to analyze the impact of females in the military on militarized hyper-masculinity. This is politically pertinent given the outworking of militarized masculinity in various security concerns, ranging from wartime sexual violence, to the underpinnings of the realist conception of international relations. Changes in the conception of masculinity in the military would then result in a change in the manner in which armed conflicts are engaged and related peripheral events. The approach taken towards this research involves, firstly, a review of literature analyzing militarized hyper-masculinity and its resultant effects on war and international relations, and females in the military. Following that, attempts will also be made to attain primary research data on a varied range of militaries from different countries, with varying combat involvement and different percentages of female involvement. An example of such data would be views of military personnel regarding femininity and masculinity in a military context. Open-source military documents will also be analyzed to observe any trends in decisions or linguistics that might indicate shifts away from or towards hyper-masculinity. Preliminary research conducted indicate a pessimistic state of affairs rather than to effect change, women in militaries today tend to adopt and exemplify the same hyper-masculinity observed in their male counterparts.





Author	Daniel Christe Rishiraj Mathur, Krzyzstof Mazur, Aakankschit Nandkeolyar and Jay Bhatt
University	Drexel University
Title	Game-based Learning in context of Global Grand Challenges

Digital games are arguably the most engaging and interactive forms of media in existence to-date, making them attractive platforms to create STEM learning experiences on a large scale. Information literacy, the ability to efficiently search, evaluate, and apply information has been deemed the core literacy of the 21st century. The Engineering Academic Challenge (EAC) is a global game designed to hone students' digital research skills in context of broad National Academy of Engineering Grand Challenge themes, developed by a multidisciplinary team of undergraduate and graduate engineering students and a librarian at Drexel University. The game leverages the Knovel and EngineeringVillage databases that provide access to thousands of e-books, material properties, conference proceedings, government documents, and journal articles. To date, this game has impacted over 3500 students in 500 universities worldwide. Over sixty-percent of players who responded to a post-game survey (N = 296) indicated that the game was their first exposure to either the Knovel or EngineeringVillage platform, and eighty percent indicated the game was their first exposure to the engineering grand challenge themes, and would use the platforms again to address their information needs. The EAC encourages active learning through a cycle of posing questions, applying research skills, testing solutions, and receiving instant feedback to promote iterative learning. We present assessment data harvested from the Engineering Academic Challenge and future directions of this ongoing effort to build a global, student-centered STEM learning experience.

Keywords: game-based learning, grand challenges, STEM, information literacy



# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Sabah Chaudry, Dr.Helen. J.S. Stewart, Dr.Timothy J.T. Chevassut
University	Brighton and Sussex Medical School
Title	An investigation into the role of S100A8 and S100A9 in Acute Myeloid Leukaemia

Acute myeloid leukemia (AML) is the a haematological malignancy characterized by the over proliferation and block in differentiation of clonal stem cells. Potential biomarkers such as S100A8 could assess the progression and remission of AML. S100A8 and S100A9 are inflammatory markers which are also suggested to promote chemoresistance by stimulation of autophagy. Microarray data from the Chevassut lab shows that both S100A8 and A9 transcripts are downregulated by the BET-bromodomain inhibitor JQ1 in cell lines.

Using RT-qPCR and western blot techniques, we show here that levels of S100A8 and S100A9 mRNA and protein are suppressed in response to JQ1 in AML cells lines. In bone marrow samples of AML patients with different cytogenetic profiles, the relative expression of S100A8 and S100A9 was found to be variable amongst the samples but also in comparison to OCI-AML3 cell line. In further experiments using AML patient bone marrow samples, treatment with JQ1 showed suppression of S100A8 and S100A9 in some patient samples but enhanced expression in others. In peripheral blood samples of healthy volunteers, we found that JQ1 treatment produced notable suppression of both S100A8 and S100A9; with a greater suppression being observed in the monocyte fractions.

Our data suggests that JQ1 regulates the expression of S100A8 and S100A9 in AML. The variability of the response seen amongst AML patient samples and cell lines may be reflective of the different genetic profiles driving the leukaemogenic process in these samples. Further work may give more detailed insight into the mechanisms of action and potential use of S100A8 and S100A9 in AML prognostic markers.





Author	Ting Ting, Chu John Cassella, Alison Davidson and Giorgio Blom
University	Staffordshire University
Title	Abundance of primary biogenic decomposition amines in water samples from different lakes and rivers around Stoke-on-Trent
Searching for vistime of grime who have been hurid in hidden (clanderting) gratues or dumped into water sources	

Searching for victims of crime who have been buried in hidden (clandestine) gratves or dumped into water courses currently utilises a number of techniques such as victim recovery dogs or ground penetrating radar. The development of chemical techniques would offer further assistance in body location and previous research has shown that primary biogenic amines are potential chemical markers of decomposition. There is a paucity of information about the natural abundance of the primary biogenic amines cadaverine, methylamine and putrescine in different water courses and an understanding of this natural abundance would allow for more accurate detection of any human material.

This work aimed to chemically detect the natural background levels of primary biogenic amines (cadaverine, methylamine, and putrescine) in water samples taken from canals, lakes and rivers around Stoke-on-Trent (UK), These amines were quantified using gas chromatography-mass spectrometry (GC-MS).

Water samples from the Hanley Park in Stoke-on-Trent were examined. In Hanley Park, there is a lake fed by a canal. It was determined that 0.002 mM putrescine was present in the analysed water samples from the park; cadaverine could not be detected. For comparison, in previously analysed leachate samples of buried porcine material with a post-burial interval of 350 days, putrescine had a concentration of 0.374 mM and cadaverine had a concentration of 0.323 mM. These data suggest that background levels of key bioamines are much lower than those found from buried material and it expected that this will be the scenario for bodies found in water.



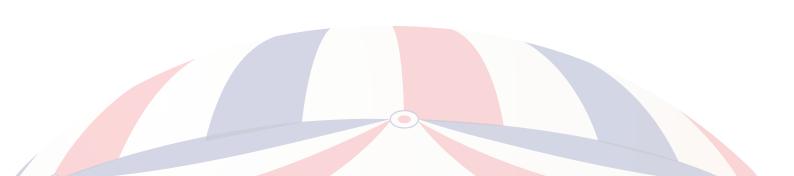


Author	Sejal Chudasama
University	Nottingham Trent University
Title	Determinants of British consumers' behavioural intention towards the purchasing of ethical products

Although the purchasing of ethical products can contribute towards a sustainable future there still remains gaps in our understanding of how this societal and policy expectation could be materialised in practice. We conducted a study to determine the factors that affect British consumers' intentions to purchase ethical products using the Theory of Planned Behaviour (TPB) (Ajzen, 1991) as a theoretical framework. We investigated the relationships among the TPB variables' including attitudes, subjective norms, perceived behavioural control, and behavioural intentions' with regard to ethical products as well as explored how these factors varied according to selected demographic characteristics.

Data was collected via a Web-based survey during October 2016 from a sample of 228 respondents. The data were first analysed using descriptive statistics, normality and reliability tests. Following this, multivariate regression, independent sample t-tests and one-way ANOVA were used to achieve the study objectives.

Our analysis revealed that consumers' attitudes, more specifically, behavioural beliefs regarding ethical products, was the main determinant of behavioural intentions (standardised Beta = .590; p <.000; R2 = .335). The other TPB variables' including subjective norms and perceived behavioural control' had no significant effects on behavioural intention. We also found that behavioural intentions and attitudes varied significantly according to the respondents' gender, age, education, and geographical locations. We conclude by discussing the implications of the findings for devising effective marketing strategies to motivate British consumers to purchase ethical products.







Author	Anna Cizek
University	Mercer University
Title	Environmental Change and Conflict: A Case Study of AQIM"s Success in Mali
will examine the or indirect cau climate change central researce of terrorism? It another. In ord effects of clima to: increased vere resulting in Ma ability to comb development in by environmen it serves to bet	ture has suggested a link between environmental change and conflict in the world. This research the link to determine the validity of that relationship and whether environmental change is a direct se of conflict. More specifically, the proposal will analyze the correlation between the effects of a in Mali and the rise of Al-Qaeda in the Islamic Maghreb (AQIM). This case study will answer the h question: Does the spread of AQIM in Mali suggest a link between climate change and the spread is likely that the change in climate and the spread of terrorism are not mutually exclusive from one er to sufficiently test this hypothesis a qualitative methodology will be used to examine the multiple ate change and how they have enabled AQIM to thrive. These effects include but are not limited ariability and extreme weather events, such as drought, increased rainfall, and flooding. Moreover, and how they have enabled through the country's ranking of 179 on the human ndex. Preliminary results have suggested that AQIM has been able to exploit vulnerabilities exacerbated tal change. This research is relevant because it addresses a current gap in the literature. Additionally, ter inform scholars, policy makers, and individuals about the overlooked threat that environmental n the security field.





Author	James Clark and Robert Morris
University	Nottingham Trent University
Title	Low Cost Magnetic Cusp Confinement of Plasma for Nuclear Fusion

Nuclear fusion is one of the leading areas of research looking to create a renewable energy source to replace fossil fuels. The most promising approach uses magnetic confinement of plasma to achieve nuclear fusion. This involves heating plasma to very high temperatures before propelling two nuclei towards each other to make them fuse together, releasing energy in the process. Doing this requires stable confinement of the plasma which is one of the limiting factors in large scale experiments. Successfully harnessing the energy released would create a completely green and renewable energy source.

The aim of this work was to build a magnetic confinement system for plasma. A low cost magnetic cusp confinement system for plasma was successfully built. A magnetic cusp confinement field was used, this is a new area of research within the field that has shown exciting promise for building small Polywell fusion reactors. This was achieved by building a system of permanent magnets to confine a nitrogen based plasma. The cusp field works by creating a high flux density at the edges with a low flux density at the centre, where the plasma is confined. A connection was then built so that gases could be injected into the system and plasmas of different natures could be produced and confined. This was tested with oxygen and nitrogen gases, which produced and confined plasmas of their respective natures.

The ultimate aim of this project is to build a small fusion reactor on our university campus in the future.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Robert Clark, Sally Park, Xinyang Li, Sofia Lesur Kastelein (Economics, Geography, History respectively)
University	London School of Economics and Political Science (University of London)
Title	Hipsters and spikes: mapping gentrification and defensive architecture in Tower Hamlets

As London experiences extensive redevelopment, poverty and homelessness remain pressing issues. Â Public and scholars alike have given widespread attention to 'gentrification' and debates around who benefits from redevelopment. Existing literature considers the role of defensive architecture in the context of securitisation of urban space, (Petty, 2016). Gentrification is understood as a social and economic change that produces 'urban space for progressively more affluent users' (Hackworth, 2002). Defensive architecture is an aspect of urban design intended to render public spaces 'unusable in certain ways or by certain groups' (Petty, 2016). This paper contributes a first attempt to ascertain a link between gentrification and defensive architecture, using a case-study to investigate the nature of the relationship between the two. It provides new empirical evidence, mapping defensive architecture, shops designated 'indicators' of gentrification and house-price increases in two wards of Tower Hamlets. It also looks for qualitative social effects of gentrification and their relationship to defensive architecture using questionnaires. The research then explores the ownership, usage and perceptions of the social space in which defensive architecture is located. It identifies the tendency of more defensive architecture being present in more gentrified area at the inter-ward level but not at the within-ward level. Also the presence of defensive architecture was found as being considered an uncomfortable reflection of social exclusion generated by gentrification, as well as lack of social cohesion between local government and people.





Author	Robert Clark, Christopher Galvin
University	Nottingham Trent University
Title	Entrepreneurship in the Informal Economy: the Role of Migrant Communities

Despite difficulties in accessing resources such as financing and training, migrants continue to be particularly active in entrepreneurial activities. These entrepreneurial activities take a variety of forms, with structural limitations placed on certain migrant categories, this is often in the informal economy. Within migrant communities, asylum seekers and women refugees suffer further vulnerabilities than other migrant categories, such as economic migrants. To date, there has been little research into the de-skilling and subsequent entrepreneurship of marginalised migrant communities within the informal economy.

The aim of this project was to explore the development of entrepreneurial skillsets and activities of migrants operating within the local informal economy. For this multidisciplinary project a qualitative methodology was used, semi-structured interviews were conducted at the Nottingham and Nottinghamshire Refugee Forum, where participants told us their stories. From here full transcriptions were coded with primary and secondary themes identified. Through comprehensive data analysis, four main themes emerged. The first was the deskilling of asylum seekers and refugees whilst in the UK asylum process and afterwards when transitioning into the formal economy. Second, a lack of recognition of migrants' previous qualifications increases the skills-gap, leading to further deskilling. Third, specific migrant communities play a prominent role in fostering enterprising attitudes and prospects. Fourth, the importance of English language proficiency and how this significantly aids the transition of employment from within the informal economy to the formal economy.





Author	Dylan Clarke, James Gibbs, Alexandra Lally, Nancy Jones
University	Bournemouth University
Title	Social Capital in West Howe Community Enterprises: How does marketization aid social enterprises and what are the pros and cons of becoming more business like?

Our aim was to research a particular community enterprise within a deprived area of Bournemouth and gain further insights to the role that social capital has to play. In a climate of financial hardship and government cuts, issues surrounding the importance of social capital and marketization seemed a particular appropriate area to explore. A wide range of qualitative and quantitative research methods were used to gain a in-depth view of not only the people involved within the community but also the relevant sociological and anthropological theory that surrounds social capital and the links between community projects and business models. Therefore methods such as participant observation, interviews, secondary data and questionnaires were used in order to extrapolate as much data as possible. From these methods rich data was recorded, which led us to conclude that a strong financial base is essential for community projects to exist and reach their full potential, which supports leading theorists on the issue surrounding social capital and the reliance on funding. Potential contradictions were also explored to see if becoming more business orientated would lead to a shift away from the core value and ideals of community enterprises.

It is important to note however that the role of social capital and an economic base are both interrelated and rely on each other, thus highlighting the complexity and reliance on both forms in order for projects such as these to exist and develop. It is this very point that demonstrates the significance of this research as social and economic capital are two areas which are rarely discussed together especially with regards to community projects.





Author	Sarah Clutton
University	Manchester Metropolitan University
Title	Sexting Risk: A student's view

Various researchers have investigated consequences or risk associated with sexting behaviour, they have also investigated groups most likely to 'sext' and therefore more likely to experience the risks but, there is very little research done on how the people most likely to 'sext' perceive the risk. The aim of the study is to understand what risks are perceived by undergraduate students with regard to 'sexting' (as they are considered the group most likely to engage in the behaviour) and to see if these have changed from the risks that were perceived reflectively by the same students when they were a younger adult or adolescent.

This study will provide a more in-depth understanding of sexting behaviour which could aid child protection and preventative techniques used with younger people to prevent exposing themselves to the risks of sexting. These could lead to serious consequences such as online bullying, sexual exploitation and revenge porn (now considered a crime) which with the ease of social networking and online lifestyles has become prevalent.

The study will be qualitative, using data collected from two separate audio recorded focus groups each with up to six participants. The focus groups will be constructed around five structured open questions. The data will then be transcribed and analysed using a content analysis method with regards to social cognitive theory.







Author	Sean Coates
University	Bournemouth University
Title	Exploration of 3D Traditional Portrait Painting and Digital Sculpting using Projection Mapping Techniques
The number of this project is to create a ZD bust which will acceptially be taxtured and medaled from a set of acrulic	

The purpose of this project is to create a 3D bust which will essentially be textured and modeled from a set of acrylic portrait paintings. The ultimate objective is to create a virtual 3D painting that the viewer can scroll around using a mouse and keyboard as it renders at real time in a 3D environment. The bust will be modeled from a series of traditional multi-surface acrylic portrait paintings depicting the subject from all perspectives ie; front, back, side, top etc. When the model is complete the paint will be applied on to the digital bust using projection mapping techniques. Multiple surfaces such as distressed wood, tiles and cardboard will make up the digital sculpture, this will allow for a radical variation of surface textures to be visible during the modeling process. Displacement texturing maps will be used allowing the depth and the texture of the expressive paint technique to be seen within the 3D environment. This workflow allows both the form and the texture of the bust to be dictated by the paint applied on each canvas. An exploration of this nature, combining traditional painting techniques with CGI is unprecedented as far as I am aware and for this reason I am keen to investigate its potential.





Author	Giovanni Conte
University	Bournemouth University
Title	ASMR Video Presentation
A short niece of research done through video detailing a brief explanation of the phenomenon of Autonomous sensory	

A short piece of research done through video, detailing a brief explanation of the phenomenon of Autonomous sensory meridian response (ASMR), which is a low grade euphoria some people feel from certain sounds or touch. The film aims to educate as well as provide some of the more common triggers of ASMR to perhaps trigger member of the audience into feeling the effects.

Here is a link to the video (please start at the 30 second mark)

https://vimeo.com/196171438







Author	Hannah Conway
University	Bournemouth University
Title	To explore the contribution Marxism offers to critique the media industry within society.

This paper will adopt a Marxist approach to explore if there is a class-based exploitation evident within media and the PR industry. Through analysing the key theories developed by Marxist scholars belonging to the Frankfurt School of thought, this will critique how public relations conforms to ideological and 'normative' messages.

The current discussion around economical capitalist societies is suggested to have slipped off the radar, masked with business and corporate media agenda. This is exactly the reason why Marxist critiques become relevant. This paper will highlight the negative aspects of an economical capitalist system because of the unequal power distribution, allowing the ruling class a level of control and influence over the media industry.

Focussing on Adorno's theory of 'The Culture Industry' and Habermas' theory of 'The Public Sphere', an analysis on the Marxist perspective on the media is developed. It is suggested the ruling class use the media and its influence over the working class in order to maintain their dominant position in society. By critiquing Marxism with Pluralism, a deeper understanding is formed. Curran comments from a pluralist perspective, directly critiquing The Frankfurt School scholars due to their 'out-dated' concepts and attitudes towards power hierarchy in a society's capitalist economical system.

By applying a Marxist perspective to a current PR campaign to demonstrate the Marxist theories, findings show that consumer based companies use public relations as a method to exploit workers as well as consumers that engage with this media platform.





Author	Mirella Cooper
University	University of Leeds
Title	'The Unquestioning Welcome': hospitality and representation in refugee narratives

Recent developments in the global refugee crisis have put pressure on the asylum-seeking process in the UK and across Europe. Research has been done into this process and how it often fails those it is designed to protect, for instance by denying asylum seekers an appropriate means of telling their own stories, even in the context of a legal hearing. Instead, the process constructs and moulds their asylum application narratives because it only authorises those aspects of the account that respond to specific questions.

This paper concentrates upon three collections of short stories; Refugee Tales; Breach; and The New Odyssey. The project will apply theories of hospitality put forward by Jacques Derrida and Agnes Woolley to investigate how a number of authors offer refugees an alternative voice or a platform to tell their stories. As part of this, the project will examine the ways in which the authors work to avoid ventriloquizing, questioning and otherwise dominating the story that is being told. In addition to exploring the potential pitfalls of trying to offer refugees a hospitable space for them to tell their stories, I will consider how these texts can provide a counter-narrative to mass-media representations of refugees. By creating space for the full scope of the narrative, these texts could provide the basis for a literary intervention in the realm of the law, and challenge the authenticity of the 'hospitality' that is ostensibly offered to those arriving in the UK.





Author	Carlo Corbani
University	University of Leeds
Title	How do people evaluate probabilistic evidence when making decisions? Breaking down the mental steps in making probability judgements.

Bayesian inference is a normative way of updating probabilities when new evidence is taken into account. Such evaluation is essential in decision making in critical fields such as court justice and medical testing, but people struggle to use the normative approach.

The majority of research carried out in the past twenty years has focused primarily on finding solutions that would facilitate the understanding of Bayesian inference and improve performance in this type of reasoning. On the other hand, research on the barriers that disrupt this thinking process has been less systematic.

Therefore, through a questionnaire distributed to University of Leeds students and staff, this study will use an experimental design to investigate three issues that may affect evaluation:

1)The domain of the problem. Medical diagnosis is typically used, which may cause emotional responses. Therefore other fields will be included.

2)The prior probability of the event. Typical events used, like having cancer, are rare and imply low prior probabilities. The study tests whether higher prior probabilities may impact final evaluations.

3)Mathematics anxiety. Anxiety about calculation may affect the ability to process information.

Eventually, mathematics anxiety, possibly linked to the respondent's numeracy level, and logical thinking seem to be essential towards the ability to perform Bayesian Inference normatively. These findings may therefore develop a new area of research which could help to better focus support for decision makers in order to improve their understanding of probabilistic data and the prevention of judgement mistakes caused by an erroneous interpretation of evidence.





Author	Quentin Corker-Marin
University	Bournemouth University
Title	Techniques of reducing n-dimensional scenes to n-1 dimensions to produce sculptures in a cubist style

Cubist painters moved away from the traditional methods of projecting a 3d scene onto a 2d canvas, instead experimenting with using multiple viewpoints in a single composition. This revealed more about the subject of the painting, maintaining interesting elements of the 3d space in their 2d representation. Similarly, Cubist sculptors achieved this effect by shifting view points and transforming volumes, producing shapes reminiscent of non-euclidian geometry. The objective of this research is to explore, create and combine novel modelling, animation and rendering techniques allowing for the creation of static and dynamic sculptures in a cubist style. Each component is considered as a stand-alone tool and integrated with a traditional 3d pipeline.

The techniques are concerned with projecting a n-dimensional scene onto an n-1 dimensional representation of itself. Firstly, the implementation of a technique which uses spherical cameras to render scenes is explained, allowing for subjects to be viewed from multiple angles in a computer generated image. Secondly, a novel method for faceting 3d geometry and applying transformations to it is outlined. This technique utilises an octree to store an alternative representation of the mesh that holds local transformation data and facets, allowing for parts of the mesh to be seen from alternative perspectives while maintaining the original form. Thirdly, the technique of space-time blending is used to produce animated cubist sculptures. Each of these techniques can be applied in a traditional 3d animation pipeline without disrupting the usual workflow and are implemented with artist friendly user interfaces.





Author	Ben Cosway
University	University of Leeds
Title	Using soft-sensing for monitoring Joint Immobilization
The thumb carpometacarpal (CMC) or basal joint is the most common sight of upper extremity surgery due to disabling osteoarthritis, with approximately one in 4 women and one in 12 men over the age of seventy diagnosed	

disabling osteoarthritis, with approximately one in 4 women and one in 12 men over the age of seventy diagnosed with the condition. The main non-surgical way of treating this condition is to splint the joint, immobilising it and allowing it time to heal with the help of activity modification and anti-inflammatory medication. One of the issues with this is making sure that patients are wearing the splint when they should be and monitoring what activities or movements they should and shouldn't be doing. The aim of this project was to create a sensor to go into a splint for osteoarthritis to be able to show when the patient is wearing the splint and also the different forces occurring during usage. The design criteria was that it had to be cheap, minimally invasive and require minimal alterations to the splint ensuring it's performance and feel to the patient would not be affected. The design of the sensor was based of the MagOne, a soft tri-axis tactile sensor developed at the University of Leeds. The basic idea was to scale this down and place it within a splint, illustrating how it can be used for practical purposes. The project was a proof of concept, a working prototype was made and was able to detect thumb movements inside the splint. This will be used as part of a funding proposal to further develop the concept.





Author	Alex Cox and Karolos Papdas
University	Coventry University
Title	To what extent does Corporate Social Responsibility and Corporate Scandal revelations influence the reported and actual purchasing decisions made by consumers?

The aim of this dissertation is to determine to what extent consumer awareness of Corporate Social Responsibility, or CSR, and Corporate Scandal revelations influence the purchasing decisions made by consumers. In order to do this, academic literature on CSR, Corporate Scandal, Consumer Behaviour and Business Ethics must first be reviewed.

While it has been established and demonstrated that CSR initiatives and Corporate Scandal revelations can have a significant impact on both organisations and consumers. There appears to be a gap in the available academic literature on the subject of how aware consumers are of the concept of CSR or of current or recent Corporate Scandals.

There also appears to be a gap in the available literature into the degree consumers' care about company CSR policies and if they affect actual purchasing behaviour or simply reported purchasing behaviour. The underlying socioeconomic factors affecting the degree to which consumers care about what organisations they choose to purchase from also appears to be under-represented in the available academic literature.

This dissertation will adapt existing academic models for use as the framework for qualitative and quantitative research, in the form of an online questionnaire, 5 semi-structured interviews and 3 focus groups, in order to attempt to determine to what extent consumers are aware of and care about company CSR policies or organisational involvement in a scandal. The research will also attempt to discover if consumers' care more about certain types of CSR policies or Corporate Scandal revelations than others. Managerial and theoretical implications will also be discussed.





Author	Peter Cox
University	Blackpool and The Fylde College
Title	Is Blackpool Poised for a Revival after the events in 2016?

In the 1960's package holidays to Spain and other sun and sand destinations took the tourists away from seaside towns such as Blackpool. This saw a slow decline to the town and other UK seaside resorts, ultimately leading Blackpool in into its 'Kiss me Quick' Stag and Hen culture.

In June 2016, in a yes/no referendum, the United Kingdom voted to leave the European Union. Brexit, as it has become known, has meant economic uncertainty in the coming months and years. Together with an increase in geopolitical unrest in popular holiday destinations abroad, as well as a strategy of re-investment in Blackpool, a very salient question is whether a rejuvenated Blackpool is on the brink of a revival?

The study will combine both qualitative and quantitative data to paint a rich picture of the main themes emerging for Blackpool as a tourist destination. Primary data will be collected using three data collection methods: interviews with key decision makers in Visit Blackpool, focus groups with holidaymakers and Blackpool residents and online surveys of the holiday makers and Blackpool residents.

The revival of Blackpool is dependent on the perceptions of potential visitors and their intentions to return or recommend Blackpool as a destination for a holiday. The key themes that would make these positive impressions will be identified and discussed in the current work using Butler's Talc model to action the trajectory of Blackpool's revival.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Vassili Crispi, Peggy Sfyri, Sandrine Verpoorten and Antonios Matsakas
University	Hull York Medical School
Title	Investigating the Pathophysiology of Peripheral Vascular Disease on Skeletal Muscles

Obese individuals increasingly show ectopic lipid infiltration in adipose and non-adipose tissues, including the skeletal musculature. This results in an increased production of reactive oxygen species, mitochondrial deficits and high oxidative stress which overall compromises skeletal muscle functioning. This project aimed at investigating the impact of a normal diet and a cholesterol-enriched western diet on skeletal muscle stem cell activation, proliferation and differentiation profiles in mice.

Wild type mice have been used as experimental models: they were divided in two group which were either subjected to a 15-week normal or high-fat diet. Skeletal muscles (Extensor Digitorum longus) were isolated from 23-week old male mice. Single myofibres were cultured for 24, 48 and 72 hours in cell culture medium and stained with primary antibodies for gene expression and nuclear staining. Specimens have been analysed via fluorescence microscopy in order to determine the cellular oxidative capacity and changes in morphology, size, vasculature and function, alongside recognition of pathological features such central nucleation and macrophage infiltration.

We conclude that diet-induced obesity exhibits a transient effect on stem cell proliferation without affecting activation and differentiation profiles. Furthermore, there are no signs of myopathy in mice, in contrast with human pathophysiology. Therefore, stem cell differentiation on single fibres is independent of diet and fatty acid uptake perturbations. However, more research should be undertaken to validate the findings from EDL in a different mouse muscle with similar contractile properties.





Author	Natasha Cross
University	Bournemouth University
Title	An Archaeobotanical analysis of the Early Bronze Age site, Caolas an Eilean in Coll, Inner Hebrides

Caolas an Eilean is a sheltered coastal bay, located south-east of Coll, Inner Hebrides. The site is dated to early Bronze Age. Although some previous palaeoenvironmental research has been undertaken, there has been no research on the archaeobotanical remains from the environmental samples recovered during excavation between August and October 2007. This is despite the fact that plentiful charcoal and possible plant material were noted during excavation.

This research aims to address the absence of existing knowledge about fuel sources and lack of trees on the island, presenting new insights into both the environmental context and past activities undertaken at the site. Additionally, the project will aim to answer how the archaeobotanical assemblage fits in with the current interpretation of Caolas an Eilean as a settlement site, involving a major fire event. To do this, an archaeobotanical analysis of soil samples from Caolas an Eilean was undertaken, with a primary focus on macrofossils including charcoal.

This process included the flotation, sieving, sorting, identification and quantification of archaeobotanical remains. Initial examination of the material, suggests an availability of wood on the island. This poster will present the results of this analysis and attempt to place them in a wider, west coast framework. Therefore, this project is integral in contributing to the missing information, that is key to the site.





Author	Jessica Crossland, Professor John Cassella
University	Staffordshire University
Title	Detection and forensic evidential value of tattoos using different lighting sources

Tattoos have been used for over 5,000 years as a means of differentiating individuals. However, different types of tattoos have increased in social popularity over the last decade. The composition of a tattoo may make it temporary or permanent in nature and have been located on every aspect of the human anatomy thereby increasing the individuality of even high-street purchased tattoos. Previously, tattoos have been discounted as a valuable biometric feature in human identification as they are not specific to one individual in contrast to other favoured forensic evidence such as DNA. There has been limited research conducted on the use of tattoos in human identification processes.

This study investigated the influence of burning and decomposition upon temporary and permanent tattoos as a means of visualisation in a forensic identification context. Four different types of tattoos, temporary and permanent endured different conditions before being examined using different light sources. The conditions included; burning to second and third degrees as well as decomposition for 21 days The porcine test tissue was examined every 7 days. Examination of the tattoos was conducted using a Foster & Freeman 'Visual Spectral Comparator' (VSC 400) to enhance the distinguishability of the tattoos from the underlying tissue in their altered conditions.

The findings indicated a clear correlation between the behavior of certain inks and designs during the burning and decomposition process. This study provides evidence that the contribution of tattoo features can be used in human identification with the aid of different light sources.





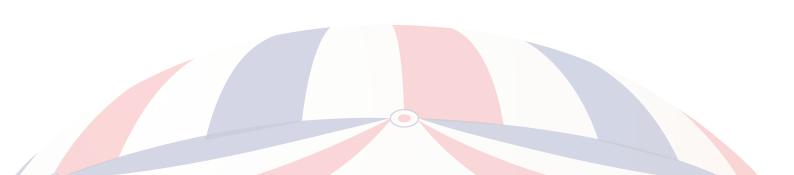


Author	Gurbinder Cubra and Irundika Dias
University	Aston University
Title	Phospholipid modifications in monocytes

Monocytes are white blood cells that play an important role in inflammation. Changes to monocyte behaviour affects progression of many chronic inflammatory diseases such as cardiovascular disease, chronic kidney disease and diabetes. Lipids are involved in maintaining cellular structures, metabolism as well as act as messengers. Mitochondria, the powerhouse in cells also contains lipids that can alter cell activity.

We hypothesised that lipid profile of monocyte-mitochondria are altered in disease and this results change to cell behaviour. The aim of this project is to analyse mitochondrial-lipids in the presence of oxidative stress. Monocyte-like THP-1 cells were cultured in supplemented RPMI media. Mitochondria was isolated from 1-5x109 cells using a previously published protocol. Presence of mitochondria was confirmed by western blotting. Membrane lipids were separated by MBTE extraction. Phospholipid content was analysed using 2 phospholipid assays. The 1st method is based on the formation of a complex between phospholipids and ammoinium ferrothiocynate. The 2nd method, phospholipids were determined by phosphorous determination through an acidic digestion. Western blot results confirmed successful extraction of mitochondria in the presence of Cytochrome C. Extracted mitochondria has 38 µg/ml phospholipid. Comparison of the 2 phospholipid assays indicated that assay 2 is reproducible.

The results show that mitochondria can be successfully extracted and phospholipid levels can be measured in our hands. Oxidative stress induced changes to phospholipid levels will be measured in future experiments. These results will add new knowledge to how lipids change in disease.







Author	Joshua Cudworth
University	Hull College
Title	How mass marketing fraud affects elderly victims psychologically

To research into the physical and psychological characteristics of elderly mass marketing fraud victims; primary research will be undertaken in the form of three face to face semi-structured interviews with professionals from a regional Trading Standards agency and a police force. The topic was chosen as the area of mass marketing fraud had been neglected thus, a lack of up to date research done in a comprehensive and comparable way.

The participants were invited to give their responses to a set questions through recorded face to face interviews. Ethical considerations have been adhered, by providing participants with a participant information sheet. The results from the study indicated professionals worked in a multi-agency collaboration to aid and assist fraud victims in a comparable and effective way. Participants identified; victims had characteristics which affected them psychosocially as fraudsters targeted lonely and isolated victims through manipulation and deception. Victims were left with feelings of a lack of self-belief, shame, and a lack trust in society. Awareness was a key concept identified and took many guises, as victims and family members were not aware of their situation. However, some victims were aware but did not stop because of threats or of the connection created

This research is crucial in highlighting the devastating effects of mass marketing fraud whilst providing information to potential victims and families and highlighting policy changes.

# BCUR17 25-26 April 2017 Bournemouth University



Author	Cyrus Czarnota, Ibtissam Jabre, Samit Kundu and Naeem Syed
University	Canterbury Christ Church University
Title	Monitoring Alternative splicing in full length clock genes transcripts in Arabidopsis

Circadian clocks are internal time keeping mechanisms that help plants to maximize their efficiency throughout the diurnal cycle and provide competitive advantage under stressful conditions such as cold or drought. Discovery of alternative splicing in clock genes was a big surprise and the scientific community was intrigued to find that the master regulators (Clock Genes) were being alternatively spliced. So far, more than sixty alternatively splice events have been discovered for clock genes, however it is unclear how or if multiple splice variants appear in a single transcript of the same clock gene. Towards this goal, we are using primers spanning the full length (as well as along known splicing events) of clock genes by employing RT-PCRs to detect and quantify different splice variants to understand this phenomenon.

To verify our results, we will also use nanopore sequencing to decipher the full-length sequence of these genes to understand how or if different splice variants appear in full length transcripts and modify their expression and splicing patterns. Nanopore sequencing will also illuminate whether different transcripts potentially make novel proteins or are degraded by the nonsense mediated decay pathway (NMD) due to the presence of premature termination codons introduced via intron inclusion.

This work is very important because short read next generation sequencing platforms cannot determine whether different introns and/or exons are included in the same transcript or not. In addition, the low cost of nanopore sequencing makes it an attractive alternative for labs with limited resources.





Author	Emily Daniels and Andrew Mayers
University	Bournemouth University
Title	The Experiences of Fathers Who Witness Birth Trauma, and Their Experiences of Support.

Traumatic births are characterised as distress caused during birth due to a complication, physical damage or negative emotions arising during birth and for some time postnatal (Shaban et al., 2013). Research into fathers' mental health during this period is rare but extremely important. For example, the prevalence rate of fathers' suicide risk was 4.8% postpartum and fathers with postnatal depression were found to be 46.5 times more likely to present a suicide risk (Quevedo et al., 2011). Wilson and Durbin (2010) highlights the impact it can have on children, suggesting that depressed fathers may struggle with parenting. Fathers need support (Wells, 2016), but healthcare professionals may not realise this.

Participants (men over the age of 18) will complete an online questionnaire about their experience of their partner's traumatic birth (definition taken from Shaban et al., 2013). Due to the nature of this study, fathers who have lost a loved one during birth will not take part. The sample will be taken from charities, support groups for fathers and social media outlets. Responses will remain anonymous for confidentiality and fathers are reminded throughout the questionnaire to withdraw if they feel distressed. There are continuous references to the Birth Trauma Association, where they can access support.

The study will aim for 40-50 participants. Data will be coded to find common themes in answers. The study will provide information to help fathers, guide Healthcare Professionals on what support fathers need and to open the discussion of men's mental health.





Author	Friederike Dannheim
University	University of Sheffield
Title	Mimic containing peptides as new biological tools for the study of protein phosphorylation

Virtually all types of extracellular stimuli, such as hormones, and neurotransmitters, produce their various physiological effects by inducing phosphorylation of amino acid residues within specific proteins in their target cells. The dysregulation of protein phosphorylation is suspected to be linked to various diseases, such as cancer; however this connection remains largely understudied since most phosphorylated amino acids are unstable and quickly revert to their native form, limiting their usefulness as tools in biological studies.

Various research groups tackled this problem by synthesising small molecules which 'mimic' the interactions of single phosphorylated amino acids with biological systems while boasting increased stability relative to their natural analogues. In nature however, phosphorylated amino acids occur as components of peptides and proteins, not as single residues; therefore to accurately model the interactions between phosphorylated peptides and biological targets, we need to furthermore embed these 'mimics' into peptide chains.

The aim of this project is to address this need by synthesising a compatible mimic via a sequence of chemical reactions and inserting the mimic into peptide chains using automated solid-phase peptide synthesis. Two synthetic routes were explored to determine the most efficient way of making the mimic, both of which have successfully generated the final intermediate, which should be easily converted to the mimic in one final chemical transformation. Our current work focuses on the optimisation of various reaction steps as well as commencement of the peptide synthesis stage of the project.





Author	P. d'Arienzo, M. del Re, C. Vivaldi, E. Rofi, E. Vasile, L. Fornaro, A. Falcone, R. Danesi
University	Sant'Anna School of Advanced Studies
Title	Variations in circulating mutant KRAS levels as a biomarker of response to treatment in unresectable pancreatic cancer

#### Introduction:

Pancreatic ductal adenocarcinoma (PDAC) is still lacking a highly specific circulating biomarker to monitor response to treatment. KRAS is a driving oncogene in over 90% of pancreatic cancers and the detection of oncogenic KRAS mutations in circulating free tumor DNA (cftDNA) could represent a valid non-invasive method to monitor treatment response.

Methods:

Seventeen patients with advanced (stage III-IV) PDAC undergoing first-line chemotherapy with a combination regimen (FOLFIRINOX or gemcitabine plus nab-paclitaxel) at our centre were enrolled. Six ml of plasma were collected before starting chemotherapy and at day 15; cftDNA was extracted from plasma and analyzed by digital droplet PCR (ddPCR) for KRAS mutations.

Results:

Eleven out of 17 patients displayed a KRAS mutation at baseline in plasma, while one subject with no detectable cftDNA at baseline displayed the KRAS mutation in the sample collected at day 15. Patients with KRAS increase had a significantly poorer PFS (p=0.04) and OS (p=0.025) than those with KRAS decrease.

Conclusion:

cftDNA-KRAS variation could be a suitable non-invasive predictive factor patients with unresectable pancreatic ductal adenocarcinoma.





Author	Francesca Davey
University	Bournemouth University
Title	Walking patterns in those with developmental dysplasia of the hip: a literature review

### Background:

Developmental dysplasia of the hip (DDH) results in altered acetabular coverage and pathological changes within the hip, along with gait deviances. Often misdiagnosed, DDH is the leading precursor of osteoarthritis in women, often requiring extensive treatment and rehabilitation.

### Objectives:

To review the literature pertaining to gait abnormalities in those with DDH.

### Methods:

A systematic literature search was conducted using six online databases (CINAHL, MEDLINE, SPORTDiscus, British Library Document Supply Centre Inside Serials & Conference Proceedings, ScienceDirect, SciELO) in September 2016. Studies were appraised using the Downs and Black quality assessment tool.

### Results:

Six studies met the inclusion criteria. Methods of assessing gait varied greatly, therefore direct comparisons were limited. Two studies found increased hip flexion, and one identified decreased hip extension, alluding to a hip flexor dominant gait. Three studies demonstrated that surgery (periacetabular-osteotomy (PAO)) for DDH increases hip flexion, and one identified increased in knee extension, possibly indicating an overall more upright gait. Two studies demonstrated pain-relief post-PAO. One study identified participants maintained similar activity levels compared to healthy controls, suggesting that although gait quality is altered, function can be maintained.

### Conclusions:

The results propose that those with DDH demonstrate a flexor dominant gait. PAO fails to completely normalize gait, but can provide pain-relief and improve function, which may be most important to the patient. Future research should explore holistic modalities of treatment to target remaining gait deviances.





Author	Tom Davidson, Thomas Rowledge, Dr Mark Gatenby, Dr Stefan Cantore, Stefanos Marangos, Zak Rakrouki
University	University of Southampton
Title	Students as researchers in co-designed business management education

This paper reports on students as researchers in the Co-Design group at the University of Southampton's Business School. The group aims to develop a holistic learning environment, both on and offline, in the Business School through engaging students and staff in an equal standing. This project is practical as it is making positive strides in the business school by dramatically increasing positive student feedback, but is also a theoretical study into potential frameworks and the effectiveness of Co-Designed learning. This therefore means all staff and students involved are researchers into this emerging style of learning and development. The group regularly discusses and share updates on the dynamics and on the progress it is making, and has produced numerous articles documenting this.

The project utilizes digital technology, external engagement and a constant dialogue around the curriculum to help engage student's and improve their experience, and as data from the very first year since the project's direct implementation is analysed, we can see that these aims are being met. The project also assists in the implementation of 'Self-Managed Learning', a research and enquiry-based learning method that is utilised in the business school, from First-Year Undergraduates, to Masters students.

The group believes that Co-Designed learning can be expanded to a range of disciplines and industries, and the paper covers this, as well as future steps to continue to combine students and staff in innovative research-led work.





Author	Grace Davies
University	Bournemouth University
Title	To what extent are government's aims for post-Brexit Britain likely to be realised?

The research presentation aims to evaluate the post-Brexit aims of the British government and the likelihood of their realisation.

The research begins with a brief contextual introduction, explaining the legal reasons for the referendum vote, and the reasons for the outcome of the vote, looking particularly at the relationship between the European Union and Britain with regards to immigration and sovereignty. I shall then proceed to analyse the aims of the government, namely, continued free movement of goods and services (i.e. maintaining a trade relationship), whilst refusing free movement of persons, thereby curbing immigration and restoring full national sovereignty, leaving the jurisdiction of the European Court of Justice and returning full law-making powers to the UK Parliament.

The presentation will continue by briefly exploring the available trade relationships between the UK and the EU e.g. trading under WTO rules or within the EEA/EFTA, and evaluating which of these options allows the government to realise their aims whilst regaining the amount of sovereignty required. In short, each option will be considered with regards to its impact on free movement of goods and services, whether it requires free movement of people and the impact of the relationship on sovereignty. This will enable a balanced conclusion on which trade relationship, if any, is most in line with the government position.





Author	Rachel Dawson
University	University Centre Peterborough
Title	Development of Drone Traffic Avoidance Override System
Use of domestic and commercial Unmanned Air Vehicles (UAVs), commonly known as Drones, are quickly increasing	

in popularity in the Aerospace sector. Subsequent increasing aircraft safety concerns act as a major barrier to new innovative applications for drones.







Author	Alex Dawson-Brown
University	Blackpool and The Fylde College
Title	Psychological Distance and its Relationship with Project Risk Perception

Failure to exercise competent risk management is a known detriment to business longevity. With a suite of information available claiming to teach the perfect risk management strategies, it is important not to overlook the root cause of risk management failures, people.

Existing psychological research argues that individuals are not in full control of their thoughts. The 'distance' occupied between an event and the individual's direct reality is claimed to have a profound effect on how they take action towards making a decision. This distance can be represented as the time delay between decision and effect, the geographical separation between the decision maker and the event, and the social detachment between the decision maker and those the risk affects. Psychological Distance and the underpinning Construal Level Theory can explain how mental representations form and how they influence the mind. Building on limited risk-specific research, this study hopes to demonstrate that the social, temporal and spatial characteristics of psychological distance permeate into the risk-based decisions made in projects as a result of risk perception. The study aims to clarify how important an individual's psychological proximity is to making sound risk decisions.

Scenario-based questionnaires depicting psychologically near and far events shall be used to gauge how perceptions of risk are affected. Literature claims that psychological distance will induce greater optimism with more abstract mental representations of the event. It is therefore expected that the distant risk scenarios carry an increased likelihood of acceptance compared to those close to the individual.





Author	Daniel de Kretser
University	Bournemouth University
Title	Batman: Arkham City: The ultimate crime & terror story
Patman: Arkham City (2011) is often sited as a Patman text formed from the assimilation of many other Patman	

Batman: Arkham City (2011) is often cited as a Batman text formed from the assimilation of many other Batman texts (Brooker 2012; Arnott 2016), and this is key to understanding the text as the ultimate crime & terror story. This presentation will first track the stylistic journey from Frank Miller's The Dark Knight Returns (1986) to Christopher Nolan's Batman Begins (2005) to Rocksteady Studio's Batman: Arkham City, briefly exploring what each iteration adapts or adds to the Batman mythos and how that builds the crime & terror aspect. As Catherine Spooner suggests in Contemporary Gothic (2006, p.159), the persistent gothic nature of the batman mythos is 'uch an obvious point that it need not be emphasized' and the same could be argued for crime in the intertextual world of Batman. However, analysing a small selection of the many instances of crime & terror motifs present in Batman: Arkham City, in reference to Brooker, Arnott, Nayar (2009) and Carver (2011) will demonstrate the texts intertextuality with not only other Batman texts, but also a range of classic crime & terror texts as well. Being a video game, Batman: Arkham City allows interactivity with all of its intertextual strands within the many worlds of crime & terror on a level not offered by any other medium. The consequence of this, is that the experience is unique to the game, and as a result, this presentation will argue for its place as 'The Ultimate Crime & Terror Story'.





Author	Laura Denton
University	Staffordshire University
Title	Comparison of swab efficiency in the recovery of semen from sexual assault victims

Semen is considered one of the most important pieces of evidence that can be obtained during a sexual assault examination. From this, the time since intercourse can be established. This can help to determine how long ago the alleged assault took place, therefore every effort needs to be made to maximise evidence recovery. Current evidential samples are taken using cotton swabs.

However, recent research has shown that cotton can entrap samples, which consequently does not release all the sperm. The aim of this research was to compare cotton to six other swab materials in order to identify which is the most efficient at releasing spermatozoa. The swab materials tested were Polyester, Rayon, Dacron, Foam, Nylon Flock and the Endocervical smear swabs used in cervical smears. Semen samples of 1001<sup>1</sup>/<sub>4</sub>l were deposited onto a microscope slide and then collected using the double swabbing technique. These swabs were then subjected to the Acid Phosphatase test and Microscopy.

The results from this project will be discussed in this paper. These results will hopefully allow the optimal swab efficiency to be considered when retrieving semen evidence, as well as identifying the best swab material for the examination of such evidence.







Author	Luke Dickson
University	Newcastle College
Title	An Investigation into the Effectiveness of Performance Analysis in Male Amateur Football

According to O'Donoghue (2010) performance analysis is an area of sport and exercise science concerned with actual sports performance rather than the athlete reporting on their own performance or laboratory experiments. It is only relatively recently that performance analysis techniques have been applied to competitive performance in field games such as football (Carling, Reilly & Williams, 2005). It has also been found that performance analysis within football could now be considered an essential part of a team's set up (Anguera, Campanico, Leitao, Marcelino, Matos & Sarmento, 2014). Performance analysis research is generally limited to elite level sport (Bradley, Carling, Nelson & Wright, 2014), this research aims to bridge the gap and investigate the benefits of performance analysis for amateur level sports players and coaches; ultimately providing a more detailed, precise answer to whether performance analysis is an area of sports players is an effective tool within amateur football.

The methodology uses a mixed methods design comprising of three elements, with 16 participants being used in total. Six games will be recorded using quantitative match analysis with the results being fed back to each player. Questionnaires will be handed out after each game, one regarding thoughts and feelings of performance levels, another based on the performance analysis they received the week before. A focus group will also be used to gather more in-depth data. Preliminary findings indicate a positive relationship between performance levels and performance analysis, despite being used at amateur level. This is positive for both coaches and players who can use performance analysis for tactical decisions and opposition instructions.

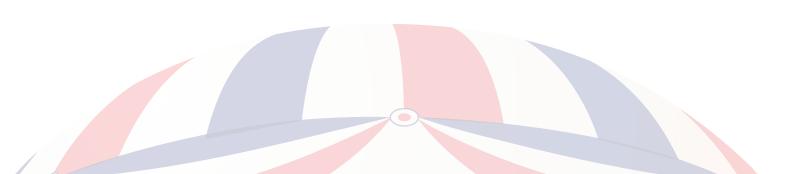




Author	Samuel Dobbs, Dr Rachel Bromnick; Dr Paul Goddard
University	University of Lincoln
Title	Gender differences in self-estimates and estimates of average student IQ

Gender differences in self-estimated IQ have long been shown to favour men. This study aimed to explore differences between male and female participants' own estimated IQ, as well as their estimates of others. In this study 693 female and 694 male students were asked to estimate their own IQ, the IQ of the average male student and the IQ of the average female student. The results showed that on average male participants rated their own IQ as significantly higher than females rated themselves. Female participants estimated themselves as having a significantly higher IQ than the average male, but a lower IQ than the average female, estimating average females to have a higher IQ than average males. Male participants rated themselves as having a significantly higher IQ than both the average male and the average female students, rating the average male and the average female student to have the same level of IQ.

These results reveal a novel finding; females rate other females as more intelligent than males, whilst still showing humility by rating themselves as less intelligent than average females. Males show a hubris effect, by rating themselves as more intelligent than the average female. However, for the first time in a study of this nature, males rated females as intellectually equal to fellow males. In conclusion, results are discussed in terms of the implications for gender identity development, education settings and future research.







Author	Emily Dore-Smith
University	Bournemouth University
Title	What are the postoperative experiences of patients who have undergone hip and knee joint replacement?

### Objective:

There are an increasing number of people undergoing hip and knee joint replacement each year; approximately 68,000 hip and 76,000 knee replacements respectively are performed in England and Wales. Joint replacements serve to reduce pain and improve function. The purpose of this qualitative review is to gain an in depth understanding into participants' postoperative experiences following hip and knee replacement, to establish if participants can be better supported through their journey of joint replacement.

#### Method:

Searches were carried out in an online scientific database (January 1995 to October 2016) to identify relevant studies. The quality of studies was assessed, data was extracted and analysed using a simplified thematic analysis.

### Results:

Altogether 197 studies were identified and following screening 7 met the inclusion criteria. No study was excluded after the quality assessment had been completed. Three broad themes were identified; coping with pain, recovering mobility and the challenges of discharge. In general pain was poorly understood and difficulties arose with the appropriate management postoperatively. The recovery process took commitment and as participants approached discharged they faced feelings of uncertainty.

### Conclusion:

Overall qualitative evidence surrounding postoperative views of participants is limited. It appears a standardised approach does not fulfill the majority of participants' needs. Utilising the views of participants may help to tailor preoperative education and provide more support postoperatively. Further research to compare preoperative and postoperative experiences would give an overall representation of participants' views.





Author	Kate Downer
University	University of Winchester
Title	John Cage, hearing nothing

With over 7 billion people on our planet there seems only a handful of things that seem universal, one of those which could be argued most important is sound. We live in a world of constant white noise whether it be the wind rushing through a forest, traffic in a busy city or a warm bath running and no single second will ever be identical to another. This paper questions: 'what is silence', the answer being provided by the late John Cage. His work redefined what we know as music and sound and has me questioning 'will we ever hear silence, or are we constantly surrounded by it?'

Known for his infamous Silent Piece whereby the musicians make no intentional sound, Cage is a composer whose music explores what music is. His compositions are post-modern, avant- garde and he is considered one of America's most prolific writers and composers.

Researching through Cage's own writings, his music and comments and work of his collaborators like Merce Cunningham, David Tudor and Morton Feldman the author concludes that all Cage's work is a canon of process based pieces that come together to challenge what we know in Western Classical Music. His flexible compositions challenge what we know as pitch, tempo and harmony and all lend so well to the belief that music is sound, sound is music.





Author	Charlotte Eagle
University	Bournemouth University
Title	To what extent will media impact relationships and sex in the future?
This paper presents the impact of specific media to society, human relations and sexuality in the future. It analyses	

both academic researchers and involved activists' views, outcomes and opinions on pornography, virtual reality, performances. This work expands on the famous 1980s sex wars and how at the introduction to virtual reality and teledildonics has effected the debate. Through conducting research into the work of the American writer Betty Friedan (1921-2006) and the American sexual educator Betty Dodson (1929, age 87) as well as English advertising consultant Cindy Gallop, this research expands on the impacts virtual pornography will have on relationships. It develops on how feminist performance art can liberate sexual exchange and whether our struggling shift to 'realistic' sexual expectation will empower and collapse our binary distinctions (Patraka 2012, p.163). Passing through the exploration of the difference between scholarly research and public emotion, this research concludes with virtual pornography's uncertain effect on future relations, as demand will forever be there however, the developing medium will always raise concerns. This work includes an original interview to Dr Trudy Barber which explores where she considers cybersex is heading in the future and whether she believes it will stimulate openness to human's interaction with machines or the non-human for sexual purpose. Barber is a cyber sexualities specialist who leads the course 'Media Studies and Entertainment Technology' at Portsmouth University. With her well regarded article 'Deviation as a key to innovation: understanding a culture of the future', she has inspired this piece of work.

## **BCUR17** 25-26 April 2017 Bournemouth University



Author	Nicole East and Sulaf Assi
University	Bournemouth University
Title	Detection and Toxicity of Phthalate in shampoos

Phthalates include a group of chemicals that are often encountered as plasticisers/lubricants in cosmetic products such as shampoos, nail polish and deodorants. Currently, there are more than 10 phthalate derivatives and the most common phthalate derivatives in cosmetics are diethylphthalate and benzyl butyl phthalate. Several types of toxicities are associated with the use of phthalates including gastrointestinal, skin, developmental and reproductive toxicity. Consequently, one derivative was banned by the European Commission and is di-2-ethylhexyl phthalate after showing major toxicity on various organs. Limited toxicity is reported regarding the additional phthalate derivatives due to their presence in low concentrations in product (below 5%). However, phthalate presence in low concentrations could have implications on the chronic exposure to phthalate. Therefore, this work aims at investigating the presence of phthalates in shampoos and the toxicities (acute and chronic) associated with the use of phthalates.

The study involved two parts: A systematic literature review and experimental work. The systematic review identified 10 phthalate derivatives which were presents at levels around 2-3%. The main analysis methods used were chromatographic methods (liquid chromatography) and hyphenated methods (liquid-chromatography-mass spectrometry (LC-MS)). The major toxicities associated with the use of phthalates were reproductive (in males) and developmental toxicities. The second part of the study involved the use of one hyphenated technique (LC-MS) and a portable technique (handheld Raman spectroscopy) for the identification and characterisation of phthalates in shampoos.





Author	Ash Edwards-Rowbin
University	Queen Mary University of London
Title	A More Creative Social Reality

'There's no business like show business' goes the famous musical refrain and though always suffused with a certain irony this perception of the arts 'in this instance, theatre 'as somehow special or at least different to other types of labour is surprisingly resilient. Why else, every year, would young people, the world over, flock to cities in search of self-fulfillment through becoming actors and artists?

Through cultural materialist methods, my focus pertains to what theatre, as work, seems to offer and the expectations many individuals have for it: the imagining of an escape into a more creative social reality. There is a prevalent desire among artists to not view their artistic practice as 'work' at all, but something else, something more. I explore the realities confronting this notion: conditions of labour and exchange, precarity and competition, the time artists spend 'as a surplus 'not engaged in theatrical work and the alienating and repetitive activity that dominates the routinized work they often do.

Mapping past and more recent demands for the end of work, this project is an ongoing endeavour to demystify current artistic modes of production and to challenge the predominance of the regulated, reproductive model of making theatre. My considerations are how theatre might actually provide the elusive, utopic idea of 'something more' a less alienated form of labour' and to question theatre's role in imagining routes toward a different world.







Author	Anni Eerik
University	Bournemouth University
Title	The role of alternative media in the construction of alternative representations of homelessness: the case study of The Big Issue

The presence of homelessness for a decade and predictions of a growing problem, have made this social issue widely debated in the social sciences field. Although there are ongoing efforts by the mainstream media to portray homelessness objectively, they still tend to follow a problematic narrative. Journalism practiced within the alternative media sector should be viewed as central to the developing agenda of critical media and communications studies, because they challenge the practice of mainstream media's exclusion of marginalised groups' voices in their coverage.

This study aims to fill an existing research gap in alternative media studies by analysing how homelessness is portrayed by alternative media outlets, and answer the overarching research question of whether, or not, they have the power to challenge dominant narratives that reflect the misrepresentation of this social issue. For this purpose, both content and discourse analyses will be performed on a sample of The Big Issue magazine. Furthermore, to explain how and why particular discourses and frames are predominant within the media coverage, the research will make use of qualitative methods, including semi-structured interviews with the leading editors of The Big Issue as well as with the Bournemouth-based vendors of the magazine.

The study aims to offer a contribution to the ongoing discussion in alternative media studies, with specific reference to alternative printed media, by focusing on the representation of homelessness by the leading 'street magazine' in the UK and situate it in the global discussion in this area of research.





Author	Emily Elgie
University	Bournemouth University
Title	Does attending and engaging with peer assisted learning provide any measurable impact on learning and personal development to students from widening participation backgrounds?
Widening Participation (WP) relates to supporting those who are marginalised in Higher Education to enter and succeed, which is a key priority for Universities and the Government. Bournemouth University's Fair Access Agreement 2016-2017 outlines the commitment of the University to support and sustain a culture of WP across the institution.	

2016-2017 outlines the commitment of the University's Vision and Values Statement, BU2018 which highlights the importance of raising aspirations for marginalised learners to engage with higher education. The core values of this strategic plan are creating, sharing and inspiring- which link to the Peer Assisted Learning (PAL) scheme. PAL fosters cross- year support between students on the same course. PAL is a very successful scheme with over 400 leaders at Bournemouth University and a strong participation nationally and globally. It has been highlighted that there is a lack of research exploring the relationship between WP students and PAL. The research question focuses on WP PAL students and investigates whether attending PAL provides any impact which will be measured through surveys and focus groups. A survey was distributed to all WP students soon after their first PAL session and another in February. Also, focus groups will be conducted in February/ March for a qualitative perspective. We hope to find that PAL provides a measurable impact on learning and personal development to all WP students. These findings would be especially important for the University and would show PAL is contributing to the Governments Fair Access Agreement concerning WP students.





Author	Israa Elhag
University	Zayed University
Title	The representation of the UAE culture in Emirati Films
on film produc Nation'; a med co-productions Emiratis towar (n=17) and ma given a questio scenes from th agreement tha minor different themes of the	hisidered as a form of representing and manifesting culture (Robichaux, 2014). In 2008, the emphasis tion in the United Arab Emirates (UAE) became crucial when the local government opened 'Image ia company with an endowment of a billion dollars to finance local film production and international is to diversify the oil-based economy (Yunis, 2014). This study explores the perception of 29 young ds the representation of the UAE culture in Emirati movies and the difference in the opinion of female le (n=12) Emiratis of the representation of the UAE culture in Emirati films. The participants were onnaire and 4 participants from each group were involved in focus group discussions within which two the Emirati film Sea Shadow where integrated. The findings revealed that although there was an overall t the majority of the actions of the selected scenes did not represent the UAE culture, there were some ces between female and male students' responses. None of the students had any disagreement to the selected scenes, but some reported that the way these scenes were executed and portrayed does not majority of Emiratis. Filmmakers might benefit from this research project to better represent the culture their scripts.





Author	Nicoli Ellis-Hall
University	University of Huddersfield
Title	What are the factors which contribute to male immigrants' crime reporting patterns?

Research into immigration and the victimisation of male immigrants is limited. Due to the media and political agendas not aligning with much of the available research, it is important to pay more attention to this increasingly important subject. This is essential for policing practices as immigrants are reporting crimes less than the general population, although they are experiencing more victimisation. Quantitative research methods have been used in this project, with the data from CSEW (2011-2015) chosen as the secondary data source.

This project aims to establish whether male immigrants experience victimisation any differently to the general population and what factors shape their reporting of incidents to the police. It was found that there was an increase in male victimisation for specific offences but that at times this can be accustomed to cultural differences. Empirical evidence is shown to underpin the hypothesis that male immigrants do experience higher rates of victimisation and report it less. Due to this, it can be acknowledged that this research intends to widen the academic insight available into the sensitive subject of immigration and crime in order to inform the police and aid improved policing practices, as well as to inform the public to help them be better informed.

With this available work on the subject as well as opportunities to continue and expand research, there is scope for a future of better suited policing practices that facilitate more reporting amongst immigrant populations.







Author	Amal Elyas
University	Zayed University
Title The evolution of the term 'brotherly relations' in the foreign policy of the United Arab Emirates	
Local modia in	the United Areh Emirates consistently uses the term 'hrotherly relations' to describe its hildtorel

Local media in the United Arab Emirates consistently uses the term 'brotherly relations' to describe its bilateral foreign relations with other countries. This term originated pre- independence - during the period of the country's tribal ancestors, when any tribal society was, in fact, 'a community of brothers following a leader, rather than a state with a graded authority system' (Rugh, 2010:19). A careful observation of the local papers sheds light on the fact that the phrase 'brotherly relations' has evolved in meaning over the years. It also points to the fact of there being two separate phrases equivalent to the term 'brotherly relations' in the Arabic media, which differ significantly in meaning, and may implicate an upgrade - downgrade in relations with alternate usage. The words 'al-akh' and 'al-shaqeeq' very loosely translate to 'half-brother-stepbrother' and 'full brother-blood brother' respectively.

This study explores the change and development that the term 'brotherly relations' has undergone in the UAE's foreign relations, identifies the countries which qualify as enjoying this 'brotherly' bond with it and what qualified them, and compare and contrast between the context of the term in both the English and Arabic media.

The study is heavily reliant on archival analysis, which involved the study of the four oldest local newspapers over the past 15 years; two each in English and Arabic. Interviews with Professors of Arabic language and Political journalists were also conducted for data triangulation, which demonstrated acute contradictions between the actual and perceived meanings of the vocabulary.





Author	Sarah EL-Zahab
University	University of Sussex
Title	Analysis of SWI/SNF catalytic subunits mutations and drug sensitivity in colorectal carcinoma

### Background:

SWI/SNF chromatin remodelling complexes are ATP-dependent complexes that alter chromatin structure regulating genetic expression and various biological processes within cells. SWI/SNF complex subunits are frequently mutated in human cancers.

### Aims:

Explore the mutational frequencies of SWI/SNF and non-SWI/SNF mutant colorectal cancer cell lines and analyse their relative sensitivities to anticancer therapy.

### Methods & Results:

Detailed database search has revealed that approximately 44% of the colorectal cancer cell lines are associated with SWI/SNF mutations with high co-mutation rates in both catalytic subunits(SMARCA2 & SMARCA4). SWI/SNF(26%) mutant colorectal cancer cell lines are more sensitive to anticancer therapy compared to non-SWI/SNF(16.7%) mutant cell lines. SNF2-N and bromodomain are the 2 highly mutated domains in both catalytic subunits.

### Discussion & Conclusion:

The effect of high co-mutation rates in both catalytic subunits on survival of tumour cells is dependent the functional specificity of SWI/SNF complex and the subsequent impact of its loss in different cell types. Moreover, the increased drug sensitivity of SWI/SNF compared to non-SWI/SNF mutant cell lines, is deduced to be related to the association of SWI/SNF complexes with DNA repair proteins. Inactivating mutations in the remodelling complex would result in the loss of the repair proteins, affecting the efficiency of DNA repair mechanisms making it more sensitive to anticancer therapy. SNF2-N and Bromodomain inhibitors are considered as potential therapeutic targets in the treatment SMARCA4-mutant cancer cells due to their critical role maintaining SWI/SNF function.



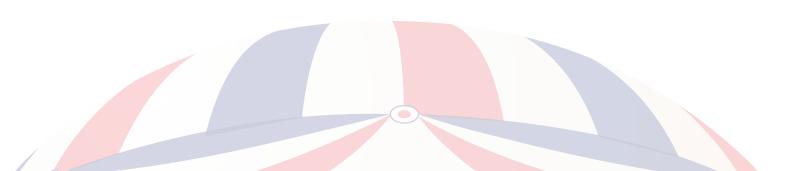


Author	Christy-Anna, Errington and Sarah Lambert
University	Bournemouth University
Title	Wolves in Sheep's Clothing: mitigating sexual violence in criminal trials

How do patriarchal models of male dominance affect behavioural patterns within the British criminal court system when dealing with sexual and domestic violence? This study examines the issue through the lens of Goffman's dramaturgical theory.

Non-participant observations of five trials at Bournemouth's Crown Court were undertaken, each crime a different type of gender-based violence with a male perpetrator and female victim. The waiting room outside the courtroom and the courtroom itself, during and between sessions, provided a window into the behaviour of individual actors within this type of trial. Roles were acted out for the benefit of the judge and jury through dress, language, action, and demeanour, by both legal professionals and other individuals involved in each case. Observations showed that each male defendant played the same role, that of the victim, usually of his own life experiences such as mental health or financial troubles, in a bid to gain a not-guilty verdict or reduced sentence.

This is consistent with secondary research which suggests that sexual violence could be a form of control used by men as a way of reinforcing or regaining power in a relationship and reflects wider ideas of male entitlement based on patriarchal norms in society.







Author	Alexander Evens
University	Bournemouth University
Title	Does assisted cycling improve function in those with Parkinson's disease?

### Introduction:

Functional decline is a cardinal sign of Parkinson's disease (PD), a neurodegenerative disease that affects 1% of individuals over the age of 60. Commonly used medical and surgical interventions, for the management of PD symptoms, may lead to undesirable side effects. Assisted cycling has been shown to be an effective mode of exercise in other neurological disorders, but there is no consensus of its efficacy in those with PD.

## Objective:

To explore the efficacy of assisted cycling in improving motor function in people with Parkinson's disease.

## Method:

A systematic search of PsycINFO, ScienceDirect, SPORTDiscus, CINAHL, arXiv, MEDLINE and Web of Science was conducted, including articles from January 2003 to October 2016. Seven articles were identified using inclusion and exclusion criteria. Studies were assessed for quality using a critical appraisal tool. No articles were excluded due to quality.

### Results:

Four studies were randomised control trials, the others were a case control trial, a before and after trial with crossover and a single subject design trial. Outcome measures included the Unified Parkinson's Disease Rating Scale III, Kinesia scores and functional tasks. The level of cycle assistance varied between studies. Length of intervention ranged from a single forty-minute session to an eight-week exercise programme. All interventions showed improvements in motor function.

### Conclusion:

There is moderate evidence to show assisted cycling's efficacy in improving motor function in individuals with PD. Future research should aim to include larger sample sizes and explore whether positive effects on motor function can be maintained longer term.





Author	Jessica Everitt
University	Southampton Solent University
Title	Pokemon Go in the fashion industry

The consumers in UK generally follow three channels for purchasing goods, namely click and collect, home delivery and purchase in store whereas about half of the online transactions are made through m-commerce (Criteo, 2016; Retail Week, 2014). According to RedEye (2015), about 62% of customers in the country prefer to shop in store which leads to an assumption that the physical stores still have a strong appeal to consumers. In the research project entitled 'Pokemon Go in the fashion industry' I have explored how the digital world integrates with the physical store environment by studying the perceptions of students about using mobile technology for shopping. An online survey with a questionnaire and a focus group with four students were used to collect data on shopping methods, experience of using voice recognition technology, type of incentives they want from retailers for using the app, and their expectations from an improved app. The key findings of the study indicate that for the high street to succeed it must go above customer expectations by introducing a fresh take on cross-channelling technology into their bricks and mortar stores and re-invent the in-store experience. A gaming type app, resembling Pokemon Go, emerged as a suitable approach to make the shopping experience more enjoyable.





Author	Jordan Ezra
University	Bournemouth University
Title	The Gradual Dissolution of Human Rights by Governments and Intelligence Agencies
agencies. It effe to subvert the co-operation w dissolution of r	on highlights the gradual dissolution of human rights at the hands of Governments and Intelligence ectively shows how the broad legal language and technicalities contained within legislation is used fundamental rights of populations around the world through war crimes, warrantless surveillance and vith corporations. It also shows how the disgruntled civilians brave enough to blow the whistle on the rights become the central targets for this dissolution. Through the analysis and cross-examination of a vents transpiring over 20 years, with the laws, leaks and the media surrounding them, this dissertation

concludes that the justification for the dissolution is largely the September 11th attacks on the Twin Towers and the subsequent 'War on Terror'. My research of whistle-blowers Julian Assange and Edward Snowden shows how telling the truth has become illegal, and how the U.S and U.K governments bend the rules to smear and degrade those brave enough to challenge their government (A right made famous by the 1st amendment to the U.S constitution.)

The revelations provided by these two whistle-blowers shed a grim light on the inner workings and corruptions of governments, intelligence agencies, corporations and war. The line between privacy and security is thin, and while these revelations have arguably started the conversation for a more transparent democracy, they have also ignited the cyber-war for human rights.





Author	Omar Fakih, Michelle Campbell, Sophie Stephenson, Reuben Tooze, Gina Doody
University	University of Leeds
Title	Cyclin D2, and its previously uncharacterized variant, X1, show distinct patterns of expression in plasma cells and multiple myeloma
Cyclin D2 (CCND2) is responsible for cell cycle progression in G1. Previous study has shown CCND2 overexpression in multiple myeloma (MM) although upexpectedly retained expression in healthy plasma cells (PCs) despite cell cycle	

multiple myeloma (MM), although, unexpectedly, retained expression in healthy plasma cells (PCs), despite cell cycle exit. Accordingly, this study compared CCND2 transcriptional variation and expression in MM cell lines and in normal PC development, to identify differences that could explain this retention of cyclin D2 expression. Mature B-cells from healthy donors were terminally differentiated into PCs in vitro. RNA samples and protein lysates were prepared from cells at different time points, as well as from MM cell lines. Expression and variation of CCND2 mRNA and protein was then investigated using real-time quantitative PCR (qPCR), immunoblotting and 3' Rapid Amplification of cDNA ends (3'RACE-PCR). We demonstrate considerable 3' diversity in CCND2 transcripts using 3'RACE-PCR in PCs and MM cell lines. We further demonstrate the expression of a novel, intron-retaining truncated variant of CCND2, X1 CCND2, that is detectable throughout PC development and in MM cell lines distinct to the canonical form. X1 protein expression increases as B-cells differentiate, in opposition to diminishing canonical cyclin D2, despite cell cycle exit, suggesting a distinct role for variant expression. Intron-retaining variants have precedence in CCND2 and other cyclins, with suggestions towards unique functional roles. This study may indicate such variation to be similarly significant in B-cells, and prompts investigation into putative functional roles of the X1 variant in the normal and malignant PC, potentially in the form of an interaction with canonical cyclin D2.





Author	Sebastian Faull
University	Bournemouth University
Title	An investigation in to mass surveillance and privacy issues and their effect on society

As mass surveillance keeps invading the privacy of innocent people from all around the world, this dissertation critically analyses the effects this has on individual liberties and freedoms. The growth in personal data collection and the ubiquity of algorithmic surveillance is an increasing issue in modern societies, as the Big Data theory encourages collection of all data, even if usefulness is not yet clear. Answers to this question are revealed: To what extent and why does the public neglect or undervalue their personal data?

The dissertation centres on the collection and analysis of email interviews from experts that work in the Judicial and Technology sectors. In doing so, the study was focused on online communications due to the pervasiveness of social media. Importantly, the enquiry follows a form of logic, where the study proceeded from initial observation and the identification of patterns within the data to the development of a tentative theory. What was established is that scenario planning is becoming increasingly difficult due to the speed with which things are changing and that the luxury of being able to imagine long term futures has faded.

I conclude that the complex and radically uncertain world today is around the issue of a new temporality, where it is as though time has not disappeared, but seems to have shrunk to an 'eternal now' and it is only at a certain critical point when society realises just how much freedom they have given away.





University Southampton Solent University	
Title Sherlock Holmes: A Product of Fear in Contemporary Television.	

This paper will consider the contemporary television adaptation of Sherlock Holmes in Sherlock (2010) related to spectatorship and the fear of the unknown. The show's extensive use of technology and threats of cyber-terrorism are examples of how the show exploits social fears such as the invasion of privacy to create entertainment. The paper will explore several instances throughout the show that reflect this argument such as the pilot episode 'A Study in Pink' and its use of mobile phones, both as aides in an investigation and as evidence in a murder case.

The ultimate aim of this paper is to highlight the popularity of Sherlock in popular culture, arguing that its reflection of these contemporary social fears are the reason for its popularity. Drawing on postmodern concepts of social anxieties from Charlotte Brunsdon (1998) and contemporary understandings of Sherlock Holmes from Lynnette Porter (2012), this paper will look at the discourse of fear created by the media: namely in entertainment and elements of fandom, concluding with a reflection on where Sherlock Holmes (Benedict Cumberbatch) himself now stands in contemporary television as a result of social anxieties.





Author	Grace Field and Dr. Stephen Julian
University	University of St Andrews
Title	Automated DC Heating for AC Susceptibility Measurement of Type-II Superconductors

Superconductors are known as the "perfect conductors" – but how perfect is any given superconducting sample? The AC susceptibility technique tells us how purely a sample exhibits superconductivity. Two oppositely wound 'secondary' coils are placed inside a larger 'primary' coil; so when an AC signal is run through the primary coil, any emf in the secondary coils is due to the presence of a sample. The emf induced under these conditions depends on the sample's behaviour in a magnetic field - it might expel the field, acting as a superconductor, or internally align with the field, acting as a paramagnet.

Crucial to the success of the AC susceptibility method is an effective method of temperature control. Temperature must sweep gradually and consistently across a superconductor's transition region. Previously, our lab had used a manual control system to avoid the alternative: an overly expensive and complex pre-made heating system. But even the most effective manual control systems create short intervals of rapid heating, adding unwanted noise to the transition data.

We have designed an automated DC heating system that combines Arduino and LabVIEW technology to gradually and consistently heat a high-temperature superconductor from ~20K below to ~20K above its Tc, creating a novel and affordable method of temperature control. Preliminary results indicate that our system is effective in collecting smooth transition data – it collect smooth transition curves for Lanthanum Cuprate, a Type-II superconductor. Furthermore, it has allowed us to begin investigating the effects of Oxygen-doping on transition behaviour of the same material.





Author	Thomas Fisher
University	Bristol, University of the West of England
Title	Improving human understanding of machine learning through interactive visualization
Machine learning is becoming increasingly more prevalent in the modern world. Many applications now incorporate	

Machine learning is becoming increasingly more prevalent in the modern world. Many applications now incorporate machine learning, from product recommendations on Amazon to facial recognition on Facebook, all rely on machine learning at their core. For many of us, a big question is 'how does machine learning actually work?'. By visualizing machine learning processes, this can facilitate our understanding of how such complex processes function. In this research, I have designed and developed a novel visualization approach for understanding how machines perform image recognition tasks. In particular, our approach aims to dissect the machine learning process of a convolutional neural network, to show how handwritten characters are classified and how this draws a parallel with how humans perform the same tasks. In addition to understanding how machines perform such tasks, the visualization enables users to identify when, and more importantly why, the machine may perform erroneously (e.g., misclassification in an image recognition task), which can help for addressing how to improve the learning (e.g., is the error in the algorithm, or in the training data?). By working to develop visualization tools for these types of tasks, we aim to make the decision-making process of a machine learning algorithm more accessible for users.





Author	Rebecca Fletcher
University	University of Warwick
Title	Palestine: A gendered perspective on youth under Israeli occupation

The design will be tested mathematically and through simulation. The preliminary results of the research are that the systems design and design of a Drone prototype are feasible. Cost and existing aerospace technical standards may hinder implementation and test of a working prototype but with further development, the prototype could abide to industrial standard (EASA). The successful design and incorporation of such systems in domestic and commercial drones could encourage use of drones to be more widely accepted into the integration of airspace through reducing both the risk of collisions and the perceived risks involved with drone use.







Author	Candice Ford, Yves Janin and Eloi Coutant
University	University of Bristol
Title	Bioluminescence - improving signal intensity and duration through structural alterations of luciferin molecules.

Bioluminescence could be considered as a form of communication, with a variety of organisms lighting up in response to an attack, or in order to attract mates or prey. On a chemical level, the enzyme luciferase enables the emission of light associated to bioluminescence, by oxidising luciferin molecules. From such systems, scientific research in biology led to valuable bioluminescence-based tools for the reporting of biological processes in an almost infinite number of applications in many research domains such as immunology, oncology, virology or neuroscience.

In the course of my Amgen Scholar 8 week-long training period, the multistep synthesis of four (confidential) luciferin molecules was achieved. We then compared their bioluminescent signals with the one obtained from commercially available luciferins (such as Furimazine or 6h-f-coelenterazine) using an artificial luciferase derived from a luminous shrimp. The signals were assessed for their "glow" and "flash" characteristics, the former corresponding to its stability over time, the latter corresponding its intensity in the first few seconds following the addition of the luciferin molecule. Moreover, a full kinetic evaluation of an original (and again confidential) inhibitor of this luciferase was carried out, aiming at facilitating the design of new luciferin molecules.





Author	Panarai Ford
University	Bournemouth University
Title	Are relatives of individuals with autism more susceptible to mental health issues?

Extensive research posits that individuals with autism spectrum conditions (ASC) are more vulnerable to developing psychiatric illnesses, such as anxiety and depression, than others (Maloret & Sumner 2014). ASC is highly heritable (Colvert et al, 2015) and relatives of people with autism tend to show an increased number of autistic traits both behaviourally and neurologically (Losh et al, 2009; Mosconi et al, 2010; Moseley et al, 2015), suggesting that perhaps biological relatives of autistic individuals share some of the risk genes related to autism and the development of mental illnesses.

This study compares groups of relatives and non-relatives to investigate whether biological relatives of individuals with ASC are more vulnerable to the development of psychiatric illnesses, and whether it is a result of increased autistic traits or another aspect of being related to an individual with ASC. A series of questionnaires will screen for autistic traits (the Autism Spectrum Quotient (AQ)) and symptoms of depression, obsessive compulsive disorder, anxiety disorders, and eating disorders. Expected results of a between-groups ANOVA will show that relatives score significantly higher on mental health questionnaires than non-relatives, suggesting higher susceptibility to psychiatric illnesses. Further regression of AQ scores will determine whether autistic traits drive psychopathology rather than other aspects of being related to someone with an ASC.





Author	Louise Fortunato and Sulaf Assi
University	Bournemouth University
Title	Miniaturising spectroscopy: Can handheld spectroscopic techniques identify counterfeit tobacco on-the- spot?

Counterfeit tobacco is a growing public health threat due to the presence of harmful constituents. Counterfeit tobacco could be encountered anywhere across the supply chain. Spectroscopic techniques are useful for the identification of different matrices as they are mobile, rapid and operate over wide temperature ranges. This work utilised handheld spectroscopic techniques for identification of counterfeit tobacco.

Libraries of chemical signatures (spectra) of authentic tobacco were constructed using two handheld spectroscopic techniques being: Fourier-transform infrared (FTIR) and near-infrared (NIR) spectroscopy. Both authentic and counterfeit tobacco samples were tested against the libraries using both correlation and probability based methods. Additionally, the active ingredients (such as nicotine) were quantified in both authentic and counterfeit tobacco.

NIR was quicker in identifying counterfeit tobacco as it required no sample preparation prior to measurement. FTIR required crushing of the samples and homogenisation before measurement. Both techniques allowed spectral collection within minutes. Regarding the spectral quality, FTIR were noisier than NIR spectra; yet, more representative of the individual constituents within the sample. NIR gave a more general overview of the physicochemical properties of samples. Both techniques were able to differentiate between authentic and counterfeit tobacco by combining correlation and probability based methods. Hence, both techniques were complementary for identifying counterfeit tobacco.





Author	Louise Foulger
University	Oxford Brookes University
Title	Research into how different stakeholders value geodiversity within Malta's coastal environment

This research is about geodiversity, or abiotic/non-living nature. It takes the case study of coastal landscapes in Malta to consider the way that geodiversity is valued and how it might be conserved. Conservation is crucial to protect the value that tourists and locals hold for places and geodiversity. This research concentrates on five main place-based values; Functional, Appearance, Cultural, Research, and Educational, comparing how specific locations in Malta are valued by tourists and locals.

The objective was to investigate whether stakeholders have different or similar views regarding Malta's geodiversity. The need for the Maltese people to protect their geodiversity is enhanced by the fact that global tourists specifically travel to the island to visit its coastal environments. There is no previous research into people's values of geodiversity in Malta. The research conducted aimed to explore how people value geodiversity in Malta, the threats they identified and the need for conservation. Semi-structured interviews were used with residents and tourists at each location.

This research contrasted the views of locals and residents, female's vs males and identified site specific differences. The research found that tourists and locals identified different values associated with each location and males have a more ecocentric opinion of nature in Malta than females, which contradicts previous studies.





Author	Vicky Fovargue
University	University Centre Peterborough
Title	Youth Crime and Mental Health: The Need for Early Intervention

Evidence suggests that more than 850,000 young people have mental health conditions within the UK alone; many of these conditions materialise before a child reaches 14 years of age (Youngminds.org.uk, 2016). This indicator is alarming and with community frontline services continuously being cut, the future for young people with mental health is discouraging (Department of Health, 2012). It is estimated that just 7 % of the total mental health budget is allocated to CAMHS, which is inadequate if society is to tackle youth offending (Time to Change, 2016). Studies show that these vulnerable youths show pre-disposed risks to becoming criminals at an early age; this evidence identifies the need for early intervention before entering the criminal justice service (Mecca, Andrew, Smelser and Vasconcellos, 1989).

The study was conducted at a secure children's unit consisting of mixed sex youth offenders from 10 - 18 years of age and from differing cultural backgrounds; the cohort ranged from low, medium and high risk offenders. Data was derived from using an explanatory strategy conducted through a fixed design closed structured questionnaire (Bryman, 2012. The results clarified that youth offenders experience many barriers before they enter the criminal justice system which could be prevented earlier.

To move forward, recommendations for a whole-system approach is vital; schools should be encouraged to link up and work in partnership with the youth justice board, CAMHS and social services so as to tackle this phenomena and to reduce the statistics rising in the next 10 years (Department of Education, 2016).





Author	Stephanie French
University	Plymouth University
Title	Value of Organization Support and its Effects on Job Satisfaction within the Hospitality Industry

The purpose of this study is to understand the impact of organizational support, and the effects it has on employee job satisfaction. Whilst many studies have previously focused on organization support, very few study the value of it to the employee. By adopting this new perspective, this study aims to guide organizations, to help satisfy, retain and promote their employees. Ultimately reducing high levels of employee turnover within the hospitality industry.

Interviews were conducted for the purpose of this study, all of whom were working within hospitality industries in the UK, aspiring to be promoted within the sector. Interviewees were aged between 18 - 50 currently working at a non-managerial level. This data was then analysed and compared with existing literature and theories to align this research with recent literature.

The majority of respondents found that organizational support was highly valued for their level of job satisfaction, and ultimately they valued how their organization supported them as a credit to their future achievements and career aspirations. Types of organization support varied greatly, however most prioritized childcare support, training provision, career programmes, one to one meetings with managers, emotional support and approachability of managers were also key factors in achieving job satisfaction.







Author	Eliesse Frost
University	Southampton Solent University
Title	An Innovative Instore Insight

It's documented the British high street is deteriorating and for many established retailers this platform is fast becoming financially unsustainable. Conversely bricks and mortar still remains an important touch point for the retailer to collect consumer insights through data capture methods such as loyalty cards and digital receipts. These insights provide retailers with vital intelligence on shopping behavior which is analysed into information for business decisions such as buy quantity and display location enabling them to remain profitable through their physical presence. My secondary research also highlighted, these methods have a cost and ethical impact 'Every year, British retailers give us 11.2bn paper receipts, at a cost of £32m' (Steen, 2012).

In my research project, I investigated the possibility of combining the data capture methods into one app, creating a digital wallet and eliminating the paper and plastic carried. The research data was collected through an online survey, completed by 100 participants providing the quantitative data and supported with qualitative analysis through a small focus group of six participants. The findings showed that 84% of respondents would prefer the digital wallet over traditional methods. Specifically, the receipt is vital for the customer with 93% of respondents still expecting a receipt for their transaction. Also 21% respondents wouldn't attempt to return a product without a receipt and a further 49% would only attempt to return a product depending on the retailer without a receipt. Based on these results there was a need for a digital wallet app 'My Cardholder'.





Author	Zoe Furness and Natasha Jones
University	Bournemouth University
Title	'Catalina', an Ecuadorian oral story
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My research aims to use animation as a tool to interpret an indigenous oral story, native to communities living within the Amazon Rainforest. The piece is about spirits of the forest watching over a baby to keep her safe as she slept in the forest. The story is about Catalina, now 65 years old and working as a midwife. Her community performed this as a ritual as they truly believed she would harbour powers from the spirits of the forest. She has recorded herself telling her story which will be used in the animation. The piece will visually describe the scene she narrates.

It is common today that community's native to the Amazon Rainforest are asking filmmakers to come and join their ceremonies, to learn and record their life as they are worried their traditions are being forgotten due to their children losing touch with their own heritage. This story will be treated respectfully and will reflect the event that happened as truthfully as possible. To ensure this, all research and information will come from Catalina and nothing will be produced if it causes any form of offence.

This research opportunity was inspired by my trip to Ecuador. From it I gained the valuable networking opportunities to help with this story and interview Catalina. Using first-hand information and knowing that it is factual, the piece can be considered an animated documentary and can be used not only to entertain, but also to educate a number of audiences about indigenous customs and ways of life in the Amazon.

I will be reporting a joint project but present it by myself.





Author	Zoe Gardiner
University	Bournemouth University
Title	An analysis of the nature and role of Recognition as a driver of Normative and Affective Commitment within Blood Donors for NHS Blood & Transplant

6,000 blood donations are required every day to support patients in need across the UK. However, alarming concerns of decreasing stock levels (Slawson 2015) have led to NHS Blood & Transplant (NHSBT) needing over 200,000 new donors every year to continue their support (Blood ca.2016a). With such a focus on recruiting new donors, what actions are NHSBT taking to ensure these donors are committed to continue donation in the future? NHSBT are a not for profit (NFP) health authority formed in 2005, part of the UK's National Health Service, that facilitate members of the public to donate blood and organs (NHSBT 2013). Whilst commitment is considered a necessary component for most NFP-donor relationships, it is vital for NHSBT as they focus on recruiting large quantities of new donors to maintain safe stock levels. As a result, recognition has been proposed as an important driver of donor commitment, despite it having been a previously much ignored antecedent within existing academic work (Sargeant and Woodliffe 2007), yet it presents significant merit within the limited research taken place (Boezeman and Ellemers 2007).

Therefore, a need for further conceptualisation is evident; both for academic understanding and industry application, particularly to allow NFPs to enhance donor commitment and better serve their cause. Therefore, a review of commitment and NFP-donor academic literature was explored to form a conceptual framework, positing recognition as a multi-dimensional antecedent of normative and affective commitment. Utilising the framework, current approaches to provide recognition adopted by NHSBT are examined through secondary research.

The research concluded that overall, the organisation provide a good level of both public and private recognition to their donors. Further recommendations for NHSBT to improve their relational marketing strategies are made, in an effort to enhance donor commitment and maintain vital blood stock levels.





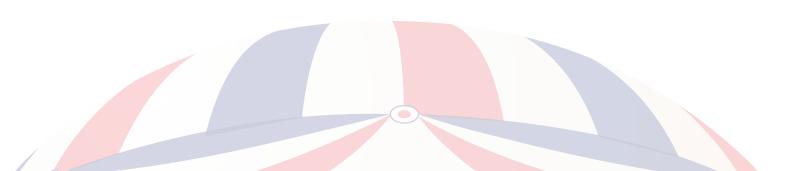
Author	Miriam Garnett
University	Roehampton University
Title	Staging guinea pigs: an exploration of the ethics of production and reception which are highlighted in Jérôme Bel's Gala.

This paper will explore the ethical minefield which is revealed when contemplating Bel's highly successful work Gala. The almost universal popularity of this piece is unusual amongst Bel's works: the choreographer has gained a reputation of a 'provocateur' who takes delight in flouting traditional theatrical codes and 'messing with your head' (Roy 2011).

Reviews of Gala express delight in what they perceive to be a celebration of individuality and the democratic nature of Bel's staging in his use of an intergenerational, differently abled cast of both professional and non-professional dancers. Conversely, interviews with performers reveal the necessity for their conformity to a rigid structure and particular conception of presenting their individuality (prescribed by Bel).

In the course of this paper I will discuss the ethical implications of this paradox, exploring the way in which Gala raises moral questions regarding both who is allowed to perform and who is allowed to comment on that performance. My conclusion will argue that such ethical considerations should, and do, have an impact on our aesthetic evaluation of the art work.

Roy, S. (2011) Step-by-step guide to dance: Jérôme Bel. Available at: www.theguardian.com/stage/2011/nov/22/step-guide-dance-jerome-bel. (Accessed 10/01/2017)



# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Jonathan Gee
University	Queen Mary University of London
Title	Investigation into the sensitivity of SAPT(DFT) based on basis set and density functional choice

Molecular modelling is an active area of research in which significant contributions to electronic structure methods have allowed accurate calculations of intermolecular interactions of increasingly complex systems, from water to large organic molecules. Density functional theory (DFT) is one of these methods which, despite ongoing research, cannot accurately describe all the characteristics of a real system, such as exchange repulsion, thus cannot meaningfully compute intermolecular interactions. Recent developments in symmetry-adapted perturbation theory utilizing density functional theory SAPT(DFT) have been able to accurately compute intermolecular interactions in terms of meaningful physical origin, providing a powerful predictive tool in molecular structure analysis for industries such as drug or materials design.

SAPT(DFT) is one of the most versatile methods in computing intermolecular interaction energies. However, its dependence on DFT means uncertainties emerge due to the density functional used, whether or not we apply a self-interaction correction to functionals or our choice of basis set. In practice, we need to know the best choice of functional and basis set for any given system. In this project we will investigate current benchmark SAPT(DFT) energies on a variety of systems, using different density functionals and basis sets to determine the most suitable choices for a given system when calculating intermolecular interaction energy and its components. This will provide insight into current methods of approximating density functionals and deviations from benchmark intermolecular interaction calculations due to functional choice when using SAPT(DFT).





Author	Gergana Genova
University	University of Leeds
Title	Student perceptions of digital addiction

### Introduction:

Digital Addiction is a term widely used in the media and in popular culture. However, no consensus has been reached on the definition of 'digital addiction'. There is a paucity of research investigating how individuals perceive digital addiction and its impact. This project aims to develop an understanding of student perceptions of digital addiction, the impact digital behaviour has on everyday life, and of the boundary between healthy and problematic online behaviour.

#### Method:

University of Leeds students were invited to participate in an online survey which enquired about their online behaviour (including a modified version of the Internet Addiction Test) and demographics (e.g. age, gender). The research team purposefully sampled participants who reported different levels of online behaviour and invited them to an interview. The interview aimed to investigate student perceptions of typical online usage and the point at which they feel digital devices become harmful to a person's life.

### Results:

Preliminary analysis suggests that students describe problematic online usage by its negative impact on everyday life rather than by a metric of extent of use of online devices/material. Some students appear motivated to avoid addiction to the online world and the negative consequences that are perceived to be associated with problematic use.

## Conclusion:

The poster will explore the ability of these results to contribute to the development of a common understanding of digital addiction, and it's boundary with healthy online behaviour. The opportunities for prevention of and early intervention with digital addiction in the student population will be discussed.





Author	Oishi Ghosh
University	University of Bath
Title	Does imposing an arm embargo reduce conflict during civil wars?

With the persistent occurrence of intra-state conflict in recent times, arm embargoes have been used as a popular tool for peace-enforcement. Continuous violation of embargoes imposed by the UN have brought their objective under scrutiny.

The goal of this study is to determine the effectiveness of imposing arm embargoes during civil wars. It further investigates the difference between imposing mandatory versus a non-mandatory embargo; as well as, the impact of imposing arm embargoes on resource-rich countries. Using cross-sectional time series data between the period of 1945-1999, the findings suggest that arm embargoes are known to invoke an unfavourable reaction from targets which is counter-productive to conflict resolution. The models have been estimated using both static and dynamic panel data estimators such as the two-step Arellano-Bond estimator.

We conclude that the success of arm embargoes greatly relies on the strength of enforcement policies, as well as curbing channels through which such sanctions can be violated. The results also indicate that arm embargoes are more likely to be successful at curbing conflict in oil-rich countries than countries endowed with diamond resources.



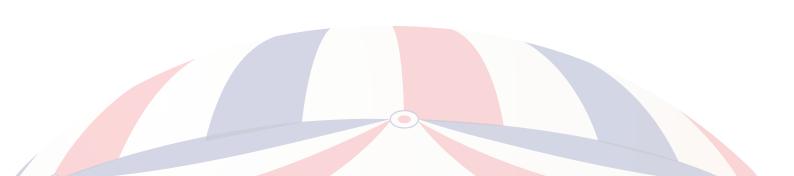


Author	Jonathan Gibson
University	University of Leeds
Title	Devolution: An unrecognised means to improve social mobility in Teesside?

With connotations of equality, meritocracy and social justice, it is understandable why governments since the turn of the millennium have published strategies solely dedicated to 'social mobility'. Taking a critical view of discursive and policy activity in relation to social mobility reveals a host of problems in relation to its popular construction and empirical conceptualisation. Education-focused approaches to improving social mobility fail to capture the classed, non-educational assets which socio-economically advantaged young people operationalise in the labour market. Inconveniently for the current Prime Minister's ambition to establish Britain as a 'great meritocracy', it is not good enough for governments repackage education policies as tools for boosting social mobility.

The evidence of the impact of structural economic change and economic development on enabling social mobility is patchy, but markedly stronger. It is therefore surprising that social mobility is absent from the English regional devolution agenda as a policy objective and in discourse. In an area where job creation is badly needed, the Tees Valley Devolution Deal makes no reference to social mobility in spite of its aim to create 25,000 high (GVA) value jobs and stimulate economic development.

The author's aim is to critically evaluate compulsory education and economic development as policy areas for improving social mobility. Applying these findings to the context of regional devolution to Teesside, the author's secondary research suggests economic development may be an unrecognised tool to enable less well-off kids to 'do better' than their parents in occupational terms.







Author	Jessica Gill
University	Staffordshire University
Title	A study conducted on pigs bellies buried in different types of cement

There are few studies that have examined decomposition rates of pigs' bellies in different types of cement and is an issue worldwide. Given the lack of research carried out in this area, this study will use three types of cements to determine variations in decomposition rates of pigs' bellies. Initially a pilot study was carried out: two small samples of pigs bellies of similar weights were examined to investigate pH values and was repeated three times in different locations to determine if there were differences within the pH across the sample and underneath the pigs' bellies.

For the main investigation, 21 porcine belly samples were encased in cement along with seven control samples were that were not encased in cement. All the samples were examined after one, three, five, seven, nine, eleven and thirteen weeks. After one week, the samples encased in cement showed little signs of decomposition but the control sample showed signs of decomposition and flies eggs were present on this sample. The samples encased in cement showed that the pH levels were more alkaline compared to the pilot study and those from the control sample after the first week, due to the cement being more alkaline, which can cause this effect.

The results indicate that there could be a correlation between pH and the decompositional stage of the samples as the meat samples had decomposed to a lesser degree than the cement samples.

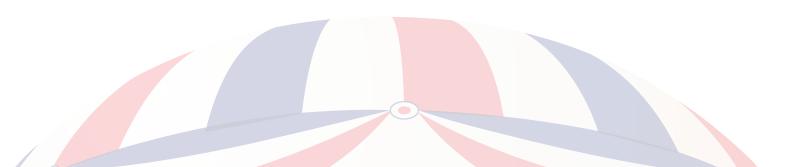






Author	Vincenza Goodison
University	Blackpool and The Fylde College
Title	To investigate to what extent the threat of terrorism affects the desire to travel

Terrorism is not a new phenomenon, it has been around for decades. However, since 11th September 2001, it has reached a new level of awareness amongst global travellers. Tourist destinations such as Egypt, Tunisia and Turkey have seen tourists being targeted in the terrorism campaigns, resulting in a growing international fear that has had devastating impacts on many destinations. Despite this, there is a lack of knowledge in regards to personal perceptions of the fear of terrorism in consumers of tourism.



# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Maria Gourmou, Dr. Despina Kazana and Dr. Paschalia Patsala
University	University of Sheffield
Title	Syntactic and semantic ambiguity resolution by Greek EFL learners

Syntax and semantics are considered to be crucial to ambiguity resolution. However, there is still a lot to be explored in relation to the parsing techniques employed by foreign language learners and their disambiguation preferences while resolving syntactic and semantic ambiguity. This project aims at examining how Greek foreign language learners of English disambiguate syntactic ambiguity of relative clauses following a complex noun phrase as well as semantic ambiguity due to homonymy and polysemy. Emphasis is placed on how participants' English language knowledge, field of studies, age and gender affect their performance in various disambiguation tasks. In particular, a questionnaire which consisted of three tasks was administered to fifty Greek adults of various levels of English language knowledge.

Task one examined whether semantic ambiguity of homonymous (eg. coach) and polysemous (eg. wing) lexical items is resolved successfully. Task two examined participants' preference between concrete and abstract meaning in homonymous and polysemous cases and their disambiguation preference (prior or late). Finally, task three examined syntactic ambiguity resolution encountered when a relative clause (RC) is following a complex noun phrase (NP-of-NP) combined with semantic ambiguity (eg. Someone shot the servant of the actress who was on the balcony with a fan).

Results reveal that the level of English language knowledge and the field of studies may influence the successful resolution of semantic ambiguity. Greek participants preferred late disambiguation structures to resolve semantic ambiguity and a high-attachment disambiguation structure to resolve syntactic ambiguity.





Author	Emma Greenwood and Dr Sue Baron
University	Bournemouth University
Title	'Creative Communication', developing; techniques and strategies for Health professionals caring for patients with complex communication needs.

## Background:

Nurses rely on their ability to communicate with patients, to understand their needs, wishes, thoughts and feelings (Bach 2015). The passage to communication at times can be disrupted creating barriers which inhibit mutual understanding. Overcoming these barriers can be challenging but is essential to establish effective communication (Balandin et al 2007). The aim of this project is to highlight ways healthcare professionals can deal with complex communication needs, in a humanised and person centered manner, that results in positive experiences for patients during hospital admissions (Hemsley et al 2010).

## Method:

The methodology for this research will be dived in two parts. The first, based on the personal experiences of Helen, who is a service user from Bournemouth University's Carer and Service User Partnership. Helen has Cerebral palsy and faces daily challenges with communication, she explains that her ability to communicate deteriorates with her health. This has resulted in Helen having negative experiences with healthcare professionals whilst being hospitalised.

These experiences have inspired the collaborative project to create a film that raises the awareness of the barriers and strategies and tools that can be used to overcome them.

The evidence that will be portrayed in these films will be derived from a systematic search of current literature around the subject area which then can be applied to the topic. The current search strategy is being reviewed as initial searches have not produced the desired results.

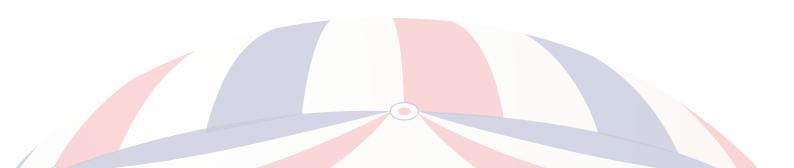




Author	Norman Guzzardi, Viliyana Tsanova and Natalia Sawicka
University	London Metropolitan University
Title	Total synthesis of marinoquinoline A: A potential treatment for Alzheimer's disease

Marinoquinoline A was isolated in 2007 from a marine gliding bacterium Rapidithrix thailandica and has a core pyrroloquinoline structure.1 It has shown modest cytotoxicity against four cancer cell lines as well as an encouraging response against the tropical parasite Plasmodium falciparum K1.2 Low levels of the acetylcholine have been proposed to be one of the main causes of Alzheimer's disease. Recently marinoquinoline A was characterised as an inhibitor of acetylcholinesterase (AChE), an enzyme that breaks down acetylcholine, a known neurotransmitter.3 The encouraging biological results of marinoquinoline A make it an attractive synthetic target. The aim of the project was to synthesise marinoquinoline A using a key novel radical mediated cyclisation using dicumyl peroxide (DCP). A range of marinoquinoline A analogues were successfully synthesised in good yields during the research program.

In conclusion, this approach offers a shorter synthetic path notably without the use of toxic organotin hydride which is classical used in radical chemistry. Marinoquinoline A and its analogues are currently being tested for AChE inhibition and results will be reported.







Author	Josie Hagan, Luke Hooper, Hayden Scott-Pratt & Phillip J Trim
University	Bournemouth University
Title	The Not So Wild West- Potential Roman Occupation in Pembrokeshire

The aim of this research was to investigate the nature of Parc Y Gaer (The Fort Park), potentially the site of the western-most Roman Villa in Wales. If this is the case it would prompt a reassessment of the current suggested extent of Roman occupation and influence in this part of Pembrokeshire and Wales as a whole. This site was investigated as part of the Stones of Stonehenge Project; headed by Professor Parker Pearson, University College London and Professor Welham, Bournemouth University. During the fieldwork the authors used a range of techniques, the results revealing the footprint of a rectangular building, which is enclosed by a further two sub-rectangular boundaries and includes a square feature to the east of the main building and irregular ditched enclosures to the south. The primary technique used to reveal this was geophysical survey (a non-destructive archaeological method). Field walking added further intrigue to the site as it revealed a large stone with prehistoric rock art engravings, in the hedge to the west of the site. Desk based investigations and comparisons with other sites, including Abermagwr, Cardiganshire, have suggested the rectangular building is a Roman Corridor Villa of 2nd-3rd Century design.

This is a significant discovery as there are only about 11 known Villas currently listed in the entirety of Wales. Therefore, another Roman Villa would add significantly to knowledge of Roman occupation in Wales.







Author	Jack Hamilton
University	Oxford Brookes University
Title	Investigating the effectiveness of Big Data analytics with a Mobile Health application measuring the inertial movements of a person.

Recent research has shown that people who have early stages of Parkinson's or Huntington's disease can be diagnosed by analysing their movement. This project aims to create a mobile health application capable of recording that movement and uploading the data to the cloud for analysis.

Currently a Micro Electric Mechanical System (MEMS) is used to collect this data by placing it at the centre of mass of a person. The MEMS is expensive, not very accessible and does not allow automatic exporting of data wirelessly to either a local machine or cloud database. My project aims to replicate the MEMS in an application on a much cheaper Android smartphone. The application will have a more accessible interface and provide a mechanism to export its data to a cloud database for Big Data analysis.

The methodology for my project will be focused on the usability of the application due to the handling of it by a wide range of ages and professions. A heuristic evaluation will be conducted on the application with 3-5 evaluators on other medical applications to access important usability and accessibility components which will then be adapted into my application. The results from the MEMS can be compared with results from the application to help improve its accuracy.

The application hopes to provide access to an accessible, cheap and easy to use diagnostic tool that can be used anywhere. This would allow medical professionals to help diagnose patients with early on set Huntington's or Parkinson's without recourse to expensive laboratory equipment.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Katie Hamling	
University	Southampton Solent University	
Title	Digital Based Personlised Depression Management System	

Mental health accounts for a large proportion of diseases worldwide, in fact one in every four people will suffer from these health disorders. According to the World Health Organization, 350 million people are affected globally by depression, which is about 18.75% of mental health cases. A depressed patient is one who suffers from low mood over a prolonged period of time, which contributes towards a lack of interest and appetite, fatigue and poor concentration.

Symptoms of depression can include restlessness, isolation and a lack of self-confidence, which are caused by factors such as poverty, genetic inheritance and other various health problems. Several studies have shown that appropriate lifestyle changes can prevent and cure depression even if other treatments may be required.

Technology advancement has proven useful in diagnosing, preventing and curing life threatening diseases in which depression is not an exception. This work utilises an Iterative stakeholder and literature analysis methodology to analyse depression in relation to changes in lifestyle. As a result a novel Depression Manager Framework is created, which can be adopted for the diagnosis, prevention and cure of depression.

Knowing that depressed patients differ vastly from one another, a Personalised Depression Management System based on the resultant framework, will be developed.

Although this work is at the initial stage, indication from existing studies signify a positive expectation using this approach. It is expected that the application will positively improve the lifestyle of depressed patients thus, subsequently providing early diagnosis, prevention and cure for such patients.







Author	Toby Harper, Dawid Pekalski, Liam Richards and Ellie Webb	
University	Bournemouth University	
Title	Celebrity 'Trumps' Professional Campaigning: how Trump used celebrity status and communication methods to seize the White House	

Political communication theory suggests the secret to successful election campaigning is running the most 'professional' campaign: having a centralised, coherent team, a market-oriented message, and a clear media management strategy targeting at voter groups most likely to deliver success. We test this through analysis of the US 2016 Presidential campaign of Republican candidate and winner Donald Trump, a political outsider and novice to political campaigns. Our analysis of secondary sources exploring campaign organisation and qualitative study of campaign communication, analysing specific messages and the means for dissemination, shows Trump broke all the rules but was successful for that reason.

Trump used his celebrity status to create a credible brand, presenting himself as a successful businessman as well as being in touch with ordinary Americans. His communication gave voice to disaffected Americans who personally faced economic uncertainty, providing them with hope through policies encapsulated by the slogan 'Make America Great Again'. Through the primary race opponents were picked off 'Apprentice style', undermined through attacks on their political and personal record. Simultaneously Trump developed an authentic and headline grabbing persona through using Twitter for sloganeering and attacking opponents, media and the 'establishment' as a whole. His controversial, populist style captured the imagination of Americans who felt disenfranchised by the Obama administration, and under threat from changing circumstances in the economy and the changing culture of the US. Our analysis thus allows us to sketch out a new concept for professional election campaigning.





Author	Joseph Hart, Hettiarachchi NT, Peers C
University	University of Leeds
Title	Molecular changes in Alzheimer's Disease: Investigating the effects of AB on calcium signaling in human brain pericytes

Pericytes are a cell type found in the wall of all capillaries, they are 3 times more prevalent in the brain than in the rest of the body. It has been suggested that pericytes have contractile properties and play a role in controlling blood flow through capillaries. The Amyloid Cascade Hypothesis proposes that a build-up of Amyloid protein (A) is the starting point for a chain of events that leads to Alzheimer's Disease, a degenerative condition with a rapidly increasing social and financial burden. There is a time period between initial build-up of A and the onset of disease symptoms.

This study seeks to understand the molecular changes that occur during this period, in an attempt to inform future treatments, by examining the effects of A on calcium signalling in human brain pericytes. Cells were treated with 100nM A 24 hours before conducting the experiments and the reverse A protein (containing the same amino acids but in the reverse order) was used as a control. The level of calcium in the cells was recorded by microfluorimetry using FURA 2, a fluorescent dye that binds free calcium in cells, measured with a Cairn Research ME-SE Photometry system.

The rise in calcium levels observed in pericytes when treated with bradykinin, in the absence of calcium outside the cells, was similar in both cell groups. However, the entry of calcium into the pericytes, after this initial release of internal calcium stores, was significantly greater in the cells treated with A than in the controls. This suggests a direct effect of A on calcium influx pathways in human brain pericytes, which may in part be responsible for the microvascular changes present in Alzheimer's Disease.





Author	Lucy Hart
University	University of Exeter
Title	'Red Dead Redemption': historiographical debate

This project assesses the historical accuracy of the video game 'Red Dead Redemption', set in 1911 when the 'Old West' was coming to an end. Rockstar Games, the game's developers, claim to have undertaken considerable research; I wanted to test whether this had resulted in a game that accurately reflects historical reality, or to what degree artistic liberties had been taken in the name of entertainment.

I believe this is an important issue to tackle, as video gaming is becoming an increasingly important medium with the potential to exert a powerful influence over contemporary culture and through this, our view of the past.

I began my investigation with background reading on the culture of the West, with most authors agreeing that some key tropes, such as cattle drives and homesteading, had disappeared by this time. I supplemented this with articles about the game; here, there were contrasting views, with specific examples provided of both historical accuracy and inaccuracy.

I concluded that while specific elements of the game may be accurate, overall, it cannot be viewed as a truthful depiction of the period. However, this was not its primary objective; as a work of fiction, it successfully provides entertainment in a setting that is convincing, which requires the recycling of myths already well established, for example, by Western films.

Comparatively few scholarly articles have been published on video gaming from a historical perspective. I hope this project will make a small contribution to what I believe will be a growing field.



# **BCUR17** 25-26 April 2017 Bournemouth University



Author	r Liam Hartley	
University	Queen Mary University of London	
Title	Error evaluation in deep-inelastic scattering models for neutrino experiments	

Modern high energy neutrino experiments rely on simulations of neutrino interactions in order to predict the outcome of practical experiments. The most sophisticated particle physics event generator is GENIE and for this reason it is the most widely used event generator within the neutrino physics community.

This year, a paper was published by The MINERvA collaboration at Fermilab in America. The focus of this paper was to measure deep-inelastic scattering (DIS) within different elements by firing neutrinos at them. DIS occurs when high energy neutrinos are shot at an element, this consequently causes the atoms of an element to break up into their constituent pieces. The paper outlined a large discrepancy between their practical experiments and the predictions that were simulated by GENIE. Although GENIE is incredibly powerful, it is still not powerful enough to create simulations which replicate reality. For this reason, the focus of this project is to account for these systematic errors and quantify the differences observed by The MINERvA collaboration.

Using GENIE and ROOT (a data analysis package), the results produced by The MINERvA collaboration have been replicated. These results will allow the parameterization of the systematic errors produced by GENIE. Once these errors have been quantified, this framework will be applied to other major high energy neutrino experiments such as the IceCube Neutrino Observatory.

Preliminary results indicate that there is a large systematic error to be parameterized, however, some corrections to the data carried out by MINERvA may need to be implemented to ensure that these results are accurate. Once this framework is applied to other major high energy neutrino experiments, DIS events may be more accurately quantified by accounting for the systematic errors which have arisen.





Author	Lexy Haslam
University	Manchester Metropolitan University
Title	Have We Learnt Anything? Thematic Analysis of Serious Case Reviews Over The Last Ten Years in Relation to Children Aged 0-2 Years Who Have Died as a Result of Physical Abuse.

This paper will present the findings of a thematic analysis of a sample of serious case reviews into child deaths, due to physical abuse, since 2005. Serious case reviews have been conducted for many years. In recent years issues found within serious case reviews are mirrored in media concerns about abuse and neglect. Serious case reviews are conducted when a child is seriously injured or dies, and where abuse/and or neglect is thought to play a part. The aim of a serious case review is to reflect on the case and establish learning to help prevent similar incidents from happening again.

This research project was conducted, to establish the main messages coming out of serious case reviews. The sample frame included one serious case review from each year over the last ten years up until 2015. The longitudinal approach adopted allowed for a review of themes emerging over ten years to ascertain what learning had taken place and whether the same issues were being repeated. Early findings suggest themes such as the importance of professional knowledge, lack of professional knowledge, and problematic inter agency communication.





Author	Khawla Hassan	
University	Zayed University	
Title	Title The Effect of reciting Surat Al-Duha on self-esteem among female students at Zayed University.	

There are wide ranges of research in westernized countries about the effect of bible studies on self-esteem but limited researches are done in the Arabian countries about the effect of Quran recitation on self-esteem. This project will focus on understanding the effect of Reciting Surat Al-Duha, which addresses the release of distress to gain self-value, on self-esteem among female university students, suggesting strategies to increase students' self-esteem. This research is a quantitative, longitudinal, and experimental study. Specifically, it consists in two experimental groups and one control group: Group A is an experimental group who recited Surat Al-Duha twice a week for a month (8 times); Group B is the second experimental group and recited Surat Al-Duha once a week only for a month (4 times); Group C is the control group, therefore, they didn't have any intervention. All groups answered a questionnaire about their self-esteem twice (pre and post-test). The instruments used were a social-demographic questionnaire with 21 items and the State Self-Esteem Scale (Heatherton & Polivy, 1991) with 20 items. The total number of participants was 35 with Emirati psychology majoring students.

### SAMPLE DESCRIPTION

SPSS will be used to analyze the results and understand the impact of reciting the surah on self-esteem. It is expected that students who have been reciting Surat Al-Duha (groups A and B) have increased self-esteem compared with the students who have not recited, and that group A have also significant higher self-esteem than group B. Results and future implications will be presented and discussed.





Author	Ben Hawkyard
University	Bournemouth University
Title	An Investigation into the use of the Markov Chain for the Generation and Visualisation of Syntactic Structure.

Since 1976, with the release of Atari Video Music, artists have been attempting to create visuals to accompany and reflect audio. In this 40 year period, there has been little advancement. Music visualisations can broadly be divided into two categories: those where it is obvious they are driven by frequency and amplitude, and those which have a disconnect between visuals and the audio.

Of the former, they are typically a thin wrapper around what is essentially a spectrogram. Given how multidimensional a musical piece can be, it does not seem that a reduction to this clinical form can capture its true complexity.

The latter often decouple themselves from the source to the extent they are no longer recognisably linked. This may allow for more artistic flexibility, but they often lose the primal connection to the rhythm that simpler visualisations retain, flawed as they may be.

In this project, I propose a novel method for visualising music, which falls somewhere between these two extremes and uses elements from both. Using visualisation software I wrote, I sample frequencies at regular intervals throughout a user-provided track, then using a Markov model build a network of interconnected nodes based on the order of the notes. I can then play the piece and light up the active nodes in real time. Unlike most modern visualisers, my software produces a visualisation that is quite high level, alluding to the structure of a composition, but still retaining the low-level connection to beat and tempo.





Author	Jessica Heffer
University	University of Leeds
Title	How can NGOs in Belize provide sexual and reproductive health services to adolescents within the constraints of the law?

### Introduction

Globally adolescent access to Sexual and Reproductive Health Services [SRHS] is poor; resulting in high adolescent fertility rates and poor sexual health knowledge. Belize is typical, with legal restrictions on adolescent access to SRHS further limiting service use. However, current research has not explored the challenges of providing these services nor the challenges for adolescents to accessing them.

#### Aims

This study intends to explore how nongovernmental organisations can ensure the provision of quality SRHS to adolescents in Belize within the constraints of the law.

### Methods

In May 2016, 10 qualitative semi-structured interviews were conducted with service providers at the Belize Family Life Association [BFLA] in Belize City. Interviews were recorded, transcribed, and thematic content analysis performed.

### Findings

Interviews revealed that the open door policy used at the BFLA, guarantees the availability of SRHS for adolescents, however uptake remains low. The prominence of religion in society and associated stigma restricts adolescent use. Adolescents are poorly educated around sexual health and fear of their parents' attitudes towards SRHS deters them from using SHRS. Amongst those using services, confidentiality and friendships were influential factors and increased education and awareness are fundamental to increasing service use. This report provides unique perspectives around adolescent SRHS in Belize, helping to guide key recommendations to improve adolescent sexual health. These include education through social media and a bi-directional text message scheme, school education promoting positive body image and dedicated adolescent weekend clinics.





Author	Rose Hellyar
University	Plymouth University
Title	Portraiture as a Political Strategy in Eighteenth-Century Britain

This paper explores the theory that British Portraiture in the eighteenth-century was used as a propagandist tool, which impacted women claiming the same civil rights as men. It studies why women were discriminated against, the legislation and the politics associated with the issue in English society during the events of the French Revolution. It is important as it marks an issue that is still so current two-hundred years later, particularly in equal pay and professional opportunities.

The research approaches the writings of Marcia Pointon, Desmond Shawe-Taylor, Benedict Leca and John Barrell who wrote about the value of the portrait sitter in a historical narrative; how portraiture was a method of spreading messages of social reform in society; and addresses how portraiture implicates psychological aspects that influence our decision-making abilities. It looks at the writings of Mary Wollstonecraft, and her work promoting female education and self- improvement.

This paper argues that portraiture influences our decisions in political matters. Where portrait sitters convey their views and campaign for women's rights within the public and political sphere, and how this was impacted by their portraits. It also argues how portraiture re-negotiates gender conflict, through a comparative discussion on the gender portraits of Thomas Gainsborough and Sir Joshua Reynolds. Its conclusion is that portraiture is a communicative tool that draws attention to social injustice; explaining the beginnings of feminism; and creates a connection that progresses the study towards The Suffragettes; challenging the functions of portraiture.





Author	Rebecca Hendry
University	Manchester Metropolitan University
Title	A cost-benefit analysis of adopting a vegetarian lifestyle: the effect of vegetarianism on economic agents

The unsustainability of Western lifestyles has increasingly become a topic of interest to researchers and policymakers' (Grabs, 2015: 270). Vegetarianism is often adopted through ethical and environmental motivations. In today's world, sustainability is more important than ever and it is the vegetarian diets which promote a sustainable lifestyle. The aim of this research is to analyse the economic motives for adopting a vegetarian lifestyle. In order to find out the economic motives, primary data is collected by using a questionnaire which has been designed for a sample of 100 people.

The primary data seeks to unveil the motivations of a diet restriction, the limitations or preventative factors of one not willing to restrict their diet and the importance of these motivations. The analysis behind these questions will contribute towards the analysis of utility and the varied value of the consumption of meat. The respondents are asked about their perception of the relative cost of a diet that includes meat against one that does not and whether they need to impose cost constraints on their own diets. This aims to establish the importance of cost of food to the respondents. In addition, a cost-benefit analysis is conducted in order to compare the costs with the benefits to conclude whether one would be economically better off by becoming a vegetarian.

The preliminary results indicate a cost saving from a vegetarian diet but consumers who place a high value of consumption of animal-based foods will undermine the cost benefits associated.





University Queen Mary University of I	ondon
Title Analysing thermal niche differentiation in two species of Honduran pit viper	

Globally, many environments, such as the Amazon, face significant threats to their flora and fauna. Inevitably, species that are endemic to these areas are particularly at risk of extinction. Reptiles are especially at risk due to their ectothermic life style, this means that they are unable to self-regulate their body temperature, as they must move around their environment to reach their necessary temperature. Also the sex of reptiles is determined by temperature, so if temperature increases too much then there may be a skew in the sex ratio of a population.

This study investigated the occupied thermal niches that two species of cloud forest endemic Pitviper (Bothriechis marchi and Cerrophidion wilsoni) occupy. The reason these two species were studied was that previous modelling of the two species has shown that they each occupy a restricted close spatial niche. We tested whether the two species are in direct competition for niches, and examined the temperature of the substrate where the snake was positioned, the daily temperature variation of the area in which the snake lives, and the UV levels within the environment. Our results suggest that both species are occupying separate thermal environments, with B.marchi occupying cooler temperatures compared to C.wilsoni. In addition, it seems that B.marchi are thermoconforming with their environment, while C.wilsoni seeks areas at particular temperatures.





Author	Holly Hilbourne-Gollop and Professor Dinusha Mendis
University	Bournemouth University
Title	The 'Ultimate Balancing Act': An exploration into the balance between the right to freedom of expression and the competing rights of confidentiality, privacy and defamation

Freedom of expression is fundamental to a democratic society. When dealing with cases concerning the media, the courts find themselves having to conduct the 'ultimate balancing act' between the right to freedom of expression and other competing rights, such as the right to privacy, confidentiality and protection of one's reputation. It is widely acknowledged that freedom of expression is not without its limits and is controlled and regulated under the law due to these competing rights. A question that often arises, is whether the balance between freedom of expression and the right to privacy, confidentiality and protection and proportionate.

Comprising an evaluation of the present law and an exploration into potential future changes, this research aims to explore the balance through an analysis of cases. The examination reveals that the balance struck by the courts does impinge on the right to freedom of expression, however this is appropriate to allow for protection of individuals' rights to confidentiality, privacy and protection of reputation. This was seen in the recent privacy claims brought by the Duchess of Cambridge concerning publication of unauthorised photographs of Prince George and a claim by Adele for privacy breach against her son. With this said, the recent development of appointing the first official press regulator in the UK presents further restrictions for freedom of expression and the media, which will also be analysed and discussed in this paper.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Angelica Hill
University	Queen Mary University of London
Title	Shakespeare, Nationalism and Failure - the understudied Henry VI trilogy

The Henry VI trilogy, some of Shakespeare's earliest history plays, seem to denigrate 'others' (in terms of gender, religion and nationality) in order to glorify the contemporary concept of 'Englishness.' The texts contrast the values and superiority of the English male with that of 'others', particularly French Catholics. However, the 'humanization' of the protagonists, in which Shakespeare gives them relatable human qualities and avoids stereotypes, blurs any simplistic divisions. Ironically, this failure to draw a stark contrast is a key reason for Shakespeare's longevity as a playwright. The trilogy was hugely successful in the 1590s, but remains unpopular on the stage today.

Recent scholarship has speculated on shared authorship by, amongst others, Thomas Nashe, and Christopher Marlowe. Close textual analysis allows for the exploration of concepts such as the 'other' (as defined by Edward Said's methodology in Orientalism and Reflections on Exile and Other Essays), 'Englishness', and the figure of the 'Englishman'.

This research explores concepts of national identity, viewed through the lens both of an Elizabethan white male writer and in a context of modern, post-Freudian, literary criticism. I hope that this project will start an important and urgent conversation concerning the denigration of the 'other' within the trilogy and, just as importantly, in today's post-Brexit Trumpian world.

This research raises questions of cultural appropriation, nationalist supremacy, and the portrayal of other ethnicities and religions. It would benefit from being tested in an environment of peers, both by students of literature and of contemporary politics and society.





Author	Jessica Hillyard
University	Queen Mary University of London
Title	What explains Russia's inconsistent embrace of human rights? An exploration into the nature of Russia's ethical paradigm
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In late October 2016, Russia was kicked out of the UN Human Rights Council after international outcry regarding activity in the Syrian state and domestic human rights abuses. What explains Russia's inconsistent embrace of an ethical human rights framework? And what explains the de jure and de facto distinction?

This study identifies the plurality of conceptions of the State and the role of 'contradictory' using three strands of international moral thought: 1) Russia utilizes a Realist understanding, acting as the supreme protector of security over rights (often determined by policy/practical reasons within the authoritarian regime) as demonstrated in the 'Anti-gay Laws of 2012'. 2) Russia employs the Morality of States approach, advocating for localised traditional values as the non-Western leader of dissatisfied states, forced to abide by 'external' rights collaborated through the public support for Russia's often controversial stances. 3) Russia conforms to Cosmopolitanism, with de jure implementation of ECHR and UN values, its very role within the UN and its external state interventionism in aid of the individual.

In order to look at differing levels of analysis and the often dismissed interaction between the civil society and public officials, I use a multi-faceted analysis with focus group fieldwork, public opinion polls and interviews with civil society alongside government statements, in and outside of Russia. Within the minimal literature, this international morality conception in understanding Russian human rights allows for broader interaction with the changing domestic-international relationship and its use as a form of authoritarian governance adaptability.





Author	Donovan Hindle
University	Queen Mary University of London
Title	All of Them Witches: The Relationship Between Female Puberty and the Supernatural

My research examines Valerie and Her Week of Wonders by Vítězslav Nezval and Picnic at Hanging Rock by Joan Lindsay to illustrate how the liminality of female puberty can be associated with that other liminal realm, the supernatural. Both texts present a contrast of gender perspectives: Valerie is written by a male author; Picnic is the product of a female imagination. I am using this contrast to extend my argument into a more general analysis of how male figures throughout history have portrayed the onset of female sexual awareness as being imbued with supernatural forces, paying particular attention to the Victorian Spiritualist movement, Pre-Raphaelite painters, and the Surrealist artists of the early twentieth century. I will also be using film adaptations of both texts by Jaromil JireÅ<sub>j</sub> and Peter Weir, as I believe that through their aesthetic approaches they offer a heightened representation of the esoteric/occult symbolism of female puberty.

My research explores how female puberty has been portrayed as a 'wonderland' or dream world, an alternative reality in which strange and often nightmarish transformations take place. This is represented in Valerie and Picnic as the menstruating female figures, who enter trances or waking dreams in which they are unconsciously willed forward. I will examine this phenomenon through the lens of feminist theory, as well as my case studies of adolescent female mediums, muses and mental patients. Using Marina Warner and Alex Owen's work, I hope to argue that whilst young women have been exploited through this conflation with the supernatural, it can also be perceived as the source of their power.





Author	Anh Hoang
University	University of Reading
Title	Inflammatory licensing is regulated in a cell-dependent manner

### Background:

The inflammatory licensing of human adipose-derived mesenchymal stem cells (Ad-MSCs) is associated with activation of toll-like receptor 4 (TLR4). Although Salmonella minnesota-derived lipopolysaccharide (LPSSM), a ligand of TLR4, has been discovered to favourably induce the anti-inflammatory signals in U251 glioma cell line, its biological profiles on Ad-MSCs are unravelled. The anti-inflammatory induction of Ad-MSCs can result in anti-viral, anti-bacterial and immunosuppressive effects. Therefore, this study aims to decipher the inflammatory signalling of Ad-MSCs and U251 under LPSSM treatment.

### Methods:

Ad-MSCs and U251 cells were cultured in media containing 1 μg/ml LPSSM and were fixed at four different time points (0, 30, 60 and 120 minutes). Immunocytochemistry was performed to quantify NF-ΰB and IRF3 in each nucleus and decipher their kinetics over 2 hours. For statistics, normalisation of fold change to control group and normal distribution analysis were performed.

#### Results:

Normal distribution demonstrated the biased signalling of Ad-MSCs towards NF-ΰB, the activation of both IRF3 and NF-ΰB of U251 cells. However, normalisation statistics revealed the no fold changes of both transcription factors in glioma cell line and Ad-MSCs over 2 hours.

### Conclusions:

Different statistical methods revealed conflicting results of the TLR4 signalling caused by LPSSM. It can be interpreted that the receptors might have undergone mutations or polymorphisms. In the future, uncovering the potential of biological impacts of extracellular vesicles secreted from LPSSM-primed Ad-MSCs is essential as these exosomes play a vital role in orchestrating wound healing.





Author	Alex Hogg and Haida Liang
University	Nottingham Trent University
Title	Remote Hyperspectral Imaging with Simultaneous 3D Texture Mapping

PRISMS (Portable Remote Imaging System for Multispectral Scanning) has been previously been developed for simultaneous high resolution and 3D topographical imaging of wall paintings and other large surfaces [Liang et al., 2014]. PRISMS is the first imaging device capable of both 3D mapping and ten-band multispectral imaging simultaneously without additional distance measuring devices. It allows fully automated imaging from a remote distance of tens of meters from a stationary position, making imaging difficult to reach areas significantly easier. Due to the spectral information available from this system, faded writing and material identification can be easily obtained - as the spectra can be compared to a spectral library of known materials and faded writing can also be revealed in the near-infrared wavelength.

By redesigning PRISMS to have hyperspectral capabilities, the spectral resolution has been significantly increased allowing certain materials to be identified with greater certainty. The imaging technique has been modified from taking filter-based multispectral images to a grating-based hyperspectral line scanning method. The 3D mapping has been refined to spatial per-pixel accuracy as a by-product of the image focusing mechanism, giving the ability to create high resolution hyperspectral 3D representations of scanned objects.







Author	Katherine Holmes
University	Bournemouth University
Title	StairCARE- New and innovative electric stair assist

StairCARE is an electrically powered stair assist created to aid less mobile individuals on ascent/ descent, whilst eliminating the risk of falling down the stairs. The UK's population is ageing. This trend presents us with the new challenge to design a world that can support the lifestyles of a rapidly increasing elderly population. As part of my initial primary research, I handed out questionnaires to 3 categories of people:

- Individuals (65+)
- Members of residential care homes
- Homecare workers

From this, I discovered that:

- 4/5 people see the stairs as a hazard to the elderly
- Care home assistants spend on average 60 minutes a day assisting patients on the stairs

68% of individuals (65+) will struggle using the stairs unassisted I conducted some secondary market research into existing alternate products that try to address these requirements. Standard stair lifts begin at £2000, and domestic lifts can cost up to £15,000 – StairCARE will be a more affordable and easily accessible option. Stair assists similar to my concept are not easily accessible worldwide, and still fail to satisfy the need of the customer. My research uncovers a real need for StairCARE, and offers clear direction for my targeted market. StairCARE will provide 3 key elements which are not fulfilled by any other product currently on the market:

- Electrically powered assistance 24V electric motor for easy ascent
- An anti-fall safety feature which supports the user from behind

Ergonomic handle in front of the user for maximum stability. StairCARE will enable elderly to remain independent for longer in their own homes, thus postponing the need for full time health carers and residential care homes. Furthermore, StairCARE can be installed in over-crowded, understaffed residential homes, benefiting busy workers by allowing the elderly to freely travel up and down stairs without assistance. I am now in the process of finding mechanical and electrical technologies that are feasible to bring this product to life.



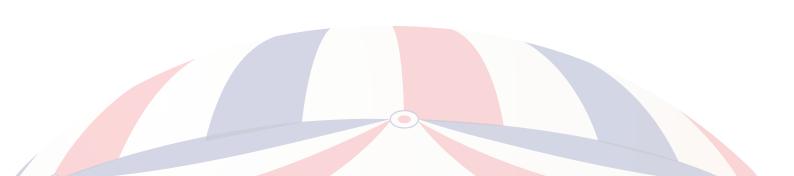


Author	Layla Hosseini-Gerami
University	University of Leeds
Title	In-silico pKa prediction

The pKa, or acid dissociation constant of a compound is an important property to study during its consideration for medicinal use. The acidity of a drug affects key absorption, distribution and excretion mechanisms within the body and is therefore useful for medicinal chemists to know about the lead compounds they are designing.

Current methods employed by drug design software to predict the pKa of new compounds can be often very inaccurate, thus a new and improved method is being investigated by myself with an aim to give medicinal chemists greater confidence in the predicted pKa value of their compounds. Experimental methods being used in this research to obtain an efficient and accurate pKa model are computational ab-initio quantum mechanical DFT (Density Functional Theory) and semi-empirical quantum mechanical calculations. So far accurate pKa values have been calculated using the ab-initio DFT methods by utilising a thermodynamic cycle to calculate pKa directly, but the calculation time is too long for a user-friendly software environment. Focus is now being put on semi-empirical quantum methods to calculate molecular descriptors of a range of compounds, such as bond lengths and atomic partial charges, as well as frontier molecular orbital descriptors.

These descriptors are numerical values which are correlated to the compound's pKa using regression models (a method called QSAR - Quantitative Structure Activity Relationships), and their accuracy evaluated. Preliminary tests have been successful, and the computational time is very fast. The next step will be to develop a model using a large (7000+) set of compounds.







Author	Nicole Hrouda and Professor Trudie Roberts
University	University of Leeds
Title	Perceptions of cheating in a UK medical school

### Introduction:

Research suggests that cheating is a concern in higher education across a spectrum of subjects including medicine, business, and engineering. Cheating can encompass a wide range of behaviours; from plagiarism, to the use of cognitive enhancing drugs.

This study aimed to explore which cheating behaviours are perceived to be more serious than others in medical school, and how participants justify these opinions.

### Methods:

Participants consisted of 8 medical students in their 1st and 4th year of study, and 5 members of staff from Leeds Medical School.

During an interview, participants were asked to place 6 hypothetical scenarios on a numberless scale from 'definitely not cheating' to 'definitely cheating', and justify their decision. Interviews were recorded, transcribed and analysed using thematic analysis.

### Results:

The scenarios about consulting an expert family member and using caffeine tablets were generally placed in the 'not cheating' side of the spectrum. Sharing answers for a clinical exam, essay lending, and collaboration were viewed as more serious forms of cheating. Students' use of cognitive enhancing drugs in the context of cheating stimulated significant debate during the interviews.

Participants considered the fairness of the behaviour and its contextual factors; such as the student's underlying intentions, medical school guidelines and society's values. Faculty also considered the impact of the student's behaviour on future clinical practice.

## Conclusion:

This study identified that defining the boundaries of cheating is complex; therefore students and staff may need clearer guidance about cheating and the use of cognitive enhancing drugs from academic policy.





Author	Laila Hussain
University	Zayed University
Title	The motives of Emirati women's aspiration for leadership positions

A growing number of young Emirati women are increasingly holding leadership positions; as of February 2016, according to Khaleej Times, nine out of twenty-nine ministers are females in the United Arab Emirates (UAE). Emirati women are performing a robust presence in different private and governmental sectors within the Emirati society (Emirates News Agency, 2016). The intended presentation introduces a conducted research project to investigate the motives behind women's inspiration to occupy those leadership positions.

This research contains a mixed-method design. The targeted participants are Zayed University female students between 20 and 24 years old, and data will be collected in two different phases; the first phase uses a questionnaire to determine the students who are interested in becoming leaders. The participants who identified themselves as leaders in their responses to the questionnaire will be interviewed in the second phase of the research project to explore the reasons behind their inspiration to become leaders. The study also sheds light on the role of Zayed University and the UAE in encouraging women to have leadership roles.

Based on the critical analysis of existing literature, it is anticipated that women are, possibly, not targeting financial or personal gains but self-development and self-accomplishment, and they may also have the desire to help their country to achieve progress and success, which is consistent with the findings of some writers such as Tashakova. (2016) and Linzi et al. (2016).





Author	Nuala Hussey
University	Hereford College of Arts
Title	Is the illustration How To Cross Dublin Without Passing a Pub intended to demonstrate that Dublin is indeed a destination for drinkers?

My research explores the complex relationship between two juxtaposed readings of what Dublin is and one particular illustration that draws on both of them. The map and its various meanings and readings are part of an ongoing discourse that continues to impact both the residents of Dublin and Irish people further afield.

As visual artists it is important we consider how and why meaning is constructed in images. My analysis of meaning within Kallwejt's illustration How to Cross Dublin Without Passing a Pub - a concept that can be traced back to James Joyce's Ulysses - contains visual analysis at the site of production, using the visual discourse methodologies suggested by Gillian Rose. Moving on from the question of 'What is the vantage point of the image' to Barber and Harper's introduction in Magnificent Maps (in which they discuss the political implications of decorative maps) I then place this analysis in the cultural context of Dublin by drawing on Saretzki's research into literary tourism and opinion pieces regarding the Irish stereotype in the country's mainstream media.

My findings are that the illustration gives the illustrator, publisher and its audience varying degrees of power or perceived power over the area depicted. I conclude that although it has an intended meaning of Dublin being a city for literary enthusiasts, there is also a hegemonic reading that draws from Irish stereotypes. Tourists are likely to read that Dublin is a destination for drinkers.





Author	Chloe Hutchings
University	Bournemouth University
Title	Exploring the relationship between British culture and food and how it is represented in contemporary British food programmes

Food is a central issue to our sense of self and how it is used on an everyday basis, not just to sustain our physical being but also to express our essential identity.

This paper explores British culture through our relationship with food and the way it is portrayed in contemporary British television programmes. This is studied by examining academic theories on the connections between food and class, mannerism and heritage, culture and national identity, gender and sexual orientation. This study will show how the aspects of identity are represented by the food we purchase and the way it is communicated to us in the two contemporary British food programmes; The Great British Bake Off and Come Dine With Me. The collection of the two diverse contemporary British food programmes in the case study chapter is discussed by comparing the connections between culture and national identity and the representation of classes.

This research gives a full insight in how the two programmes engage with British Culture and how it can be defined through its deception of food.







Author	Sidra Iqbal
University	Queen Mary University of London
Title	Histone modifications in Crohn's disease patients with intestinal fibrosis

Crohn's disease (CD) is an inflammatory bowel disease and many patients experience fibrosis as a consequence of chronic remitting inflammation. Fibrosis can cause strictures which often leads to bowel obstruction. There are currently no definitive means of predicting or detecting fibrosis, so treatment can only occur when patients present with accompanying symptoms. There is a pressing need to find a suitable biomarker to distinguish the fibrostenotic phenotype and enable early intervention or escalation of treatment. Epigenetic changes, such as histone modifications are being explored in relation to intestinal inflammation. We have used Immunohistochemistry (IHC) to compare tissue samples from stricture and non-stricture CD patients to detect any significant difference in levels of histone-3 acetylation.

We have confirmed a significant difference in histone-3 acetylation levels between stricture and non-stricture CD patients. Furthermore, we used IHC on a Dextran sulfate sodium (DSS)-mouse model of colitis to observe any changes in levels of histone-3 acetylation during a course of inflammation and subsequent repair; where time points ranged from induction of inflammation to recovery.

We found a significant difference in acetylation levels during the inflammatory course. These significant results, both in murine models and CD patients, have provided a cause for further investigation of histone acetylation not only as a potential detection mechanism for fibrosis, but also in terms of producing novel therapies.





Author	Mila Ivanova
University	Plymouth University
Title	The food tourist in Europe and trends in culinary tourism

There is a clear trend that tourists place greater importance on food as a primary motivator behind the decision to take a trip or plan a holiday (Hall and Gossling, 2016). Usage of social media in tourism and hospitality industry is growing rapidly and many researchers certainly demonstrated a keen interest. However, a review of literature sources indicates very limited research is undertaken in relation to social media and food tourism. This research, therefore, aims to investigate the impact social media platforms have on the food tourists in Europe. More specifically, it intends to establish food tourists' behaviour on social media; it examines trends that the social media sets in regards to food tourism; and it also tries to determine if demographic factors have an influence on the European market. Online questionnaires were distributed to groups with interest in food travel and mainly sought out on social media platforms such as Facebook (specially formed groups) and Google+ communities given its wide popularity among social media users. A range of statistical analyses were used to analyse collected data. The presence of such information would be highly beneficial for destination management organisations in the tourism industry to better integrate social media to attract food tourists. The findings will also be informative and useful for small medium enterprises in European tourism and hospitality industry to understand their customers and then facilitate them to better promote their businesses.

Hall, C.M. and Gössling, S. eds., 2016. Food Tourism and Regional Development: Networks, Products and Trajectories. Routledge

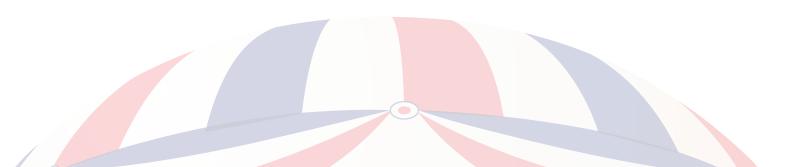




Author	Eida J. Juma and Timothy R. Jordan
University	Zayed University
Title	Do Muslims feel threatened by other Muslims or non-Muslims? Investigating Muslims' implicit attitudes towards Muslims and non-Muslims using Implicit Association Test
Since 9/11, many studies investigating prejudice against Muslims by non-Muslims using different techniques (e.g.	

Since 9/11, many studies investigating prejudice against Muslims by non-Muslims using different techniques (e.g. interviews, surveys etc.) and have shown that non-Muslims find Muslims threatening. However, few studies examined Muslims' perspectives and it remains to be seen whether Muslims have prejudice against their own religious group. Accordingly, the current study investigated implicit attitudes of Muslims towards Muslims and non-Muslims using IAT. This is a computer-conducted standardized test used for measuring the strength of associations between concepts (e.g., Muslims, non-Muslims) and evaluations (e.g., safe, threatening). 20 Muslim females aged between 17 and 27 years old took part in the experiment and were required to categorize Muslim and non-Muslim faces accompanied by words conveying either a safe or threatening evaluation. When categorizing Muslim faces, participants were faster and made fewer errors when these faces were accompanied by 'safe' words. In contrast, when categorizing non-Muslim faces, participants were faster and made fewer errors when these faces were accompanied by 'safe' words. In contrast, when categorizing non-Muslim faces, participants were faster and made fewer errors when these faces were accompanied by 'threatening' words. These findings indicate that the participants had strong preference to Muslims over non-Muslims.

Key words: Muslims, Non-Muslims, IAT, safe, threatening.







Author	Olivia Jackson and Ellie Hickman
University	Coventry University
Title	Does Brand Familiarity Have Any Impact on Repairing Trust Between a Company and Customer in the Time of Crisis?

Extant research has shown trust to be damaged between a company and customer if a crisis or violation occurs. Prior research has focused on examining what the best course of action would be for a company to take in a crisis, and how best to repair the trust afterwards. However, there has been scant investigation into whether repairing that trust is directly linked to how familiar a customer is with the brand. This paper presents a review of the existing literature on trust, trust repair and brand familiarity, and conducts two research studies to examine the implications of repairing trust after a crisis or violation for a familiar brand and an unfamiliar brand. 256 questionnaires were collected and analysed using SPSS, with questions centred on how a crisis affects a customer's perception of trust, loyalty and forgiveness based on their familiarity with a brand under three conditions denial, admittance and prior knowledge of the crisis.

Results show that brand familiarity does impact upon repairing trust between a company and customer, and their ability to forgive and remain loyal to the familiar brand, as respondents are shown to be less forgiving and are thus unlikely to trust them post crisis. By admitting and apologising for the crisis, a familiar brand is more likely to be able to regain trust. Respondents place great emphasis on the role of the media, with most respondents likely to adopt the media portrayal of the crisis. The paper concludes with future research directions suggested.







Author	Nikhil Jacob
University	University of Sheffield
Title	Automatic artefact removal to improve EEG source localization accuracies in Brain Computer Interface Systems

A Brain Computer Interface(BCI) allows users to control the external world using thought alone, using technologies such as Electroencephalogram (EEG). EEG's are electrical signals measured at the scalp, due to neuronal activity in the brain. For a BCI to work effectively, it is essential to extract the user's intent from his/her measured EEG accurately. To do this, the Source Localization(SL) method was used, which involves inverting the measured signals to responsible sources in the brain.

One of the major causes of SL inaccuracies is the presence of artefacts i.e. signals due to non-cerebral sources such as the eyes, muscles etc. Hence, this project focuses on implementing signal processing algorithms such as the Independent Component Analysis(ICA) and Canonical Correlation Analysis(CCA), to remove artefacts.

Removing Ocular and Generic Discontinuity artefacts using ICA improved the SL accuracy significantly, with a +0.69 increase in correlation to a reference plot, after artefact removal. On the contrary, removing muscular artefacts using CCA had little effect on the SL, giving only a +0.06 increase in correlation.

This suggests that artefact removal has a significant effect on SL accuracies, and incorporating effective artefact removal algorithms into the BCI design process, is very important.



# BCUR17 25-26 April 2017 Bournemouth University



Author	Hira Javaid and Stephanie Kermorgant
University	Queen Mary University of London
Title	Role of c-Met in chemoresistant ovarian cancer
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C-Met is a receptor tyrosine kinase, physiologically involved in cell proliferation, survival, and invasion. In the past decade, it has been shown that a large number of cancers have an increased expression of c-met and targeting c-Met has shown promising results in pre-clinical models. We are studying a type of ovarian cancer known as high-grade serous ovarian cancer (HGSOC), which has a very low response rate of 20% to first-line chemotherapeutic agents such as carboplatin, high rates of resistance, and poor prognosis.

Using human HGSOC cells that are either sensitive or resistant to carboplatin, we are exploring whether c-Met could represent a promising target in this cancer. The levels of expression and activation of c-Met were determined by Western blots. The influence of a c-Met pharmacological inhibitor on the cell viability was determined by a Luminescent Cell Viability Assay.

Initial experiments showed that c-Met is expressed and activated in our cell model even in the absence of ligand. C-Met pharmacological inhibition significantly reduced the survival of cancer cells. C-Met siRNA knockdowns will be performed to confirm these results as the pharmacological inhibitor can have off-target effects. Further experimentation involves trying to deduce the downstream signaling of c-Met in these cancer cell lines. If these results are confirmed, they will open up a completely new approach to targeting ovarian cancer cells resistant to traditional chemotherapy and significantly improve ovarian cancer treatment and prognosis.





Author	Emily Jenkinson
University	Bournemouth University
Title	A radical feminism approach to the representation of women in public relations

This paper explores the way in which the inequality of women is reflected in public relations. Drawing on concepts from the Radical Feminism perspective, the paper will discuss ideologies that have been constructed and propagated by a patriarchal society and how they have influenced representations of women in public relations campaigns. The stigma attached to Radical Feminism will be challenged and this paper aims to show how the application of Radical Feminism can provide a fresh perspective on women in PR.

The argument is informed by the work of Radical Feminists Ti- Grace Atkinson and Shulamith Firestone. Views of men as the enemy and key to the oppression of women will be explored and critiqued. Additional Radical Feminist views include: a) society being part of a sex class system, b) child bearing as a tool of oppression c) the concept of romance as a construction of a patriarchal society and the alternatives to overcome this inequality. Socialist Feminism views are also highlighted, concept of Cybernation as the 'perfect equalizer' according to Firestone will be assessed.

These views of Radical Feminists provide a foundation for understanding the influence patriarchy has on media texts. The research identifies how male supremacy in society is not just apparent in the personal institution of the family but also in the powerful institution of the media. The frequent representations of women as inferior and the use of objectification supports the Radical Feminism view that the media is controlled by male producers and there to benefit patriarchy.





Author	Beatrice Jupe and Dr Christiana Thermistocleous
University	University of Reading
Title	Super diversity and the Linguistic Landscape of Reading

Multilingualism, namely the ability to know or use more than one language, is a linguistic phenomenon that characterises speech communities around the world, including the town of Reading (UK). According to the 2011 census (Office for National Statistics, 2011), Reading's population has increased in terms of ethnic diversity, making it the second highest population of 'non-white' ethnic groups (namely 25.3%) in the South East of England. To investigate linguistic diversity, the 2011 census asked the question 'What is your main language?' with options only including 'English', 'Other European language', 'Sign language' and 'Other'. This census, therefore, does not capture a clear picture of Reading's true linguistic diversity.

The aim of this project is to obtain authentic data from Reading through two sources. Firstly, exploratory fieldwork will be carried out in order to map the Linguistic Landscape of Reading, by collecting data from areas where major commercial activity takes place. Public and private signs will be collected in order to detect major features of sociolinguistic regimes in the area (Blommaert, 2013) and to study the degree of visibility of various languages in the public space (Ben-Rafael, 2006). In order to understand the relative power and status of the different languages in Reading we will categorise signs in terms officially produced signs in multiple languages, bilingual signs (e.g. restaurant menus) and unofficial monolingual signs. A questionnaire will be used to gain resident's background information followed by their thoughts and feelings towards the different distribution of languages displayed around Reading.





Author	Jakub Kaczmarczyk
University	Southampton Solent University
Title	Cloud computing solution for the university
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The computer networking lab at Southampton Solent University provides an excellent range of practical resources for the students including custom made environments for implementation, configuration, experimentation, and evaluation of computer network systems and security, for both traditional enterprise and industrial networks and software defined networks. This creates a requirement for a provision of deployed Virtual Machines (VM) with various Microsoft Windows and Linux environments providing bespoke computer networking exercises and investigations produced by teaching staff, industry partners and the computer networking students themselves.

The technical outcome of the paper is to implement a private cloud resource as a test bed environment, based on an openstack software and linux server based hardware. The number of VMs and the recommended specifications of individual lab VMs have been evaluated and tested by stress testing with generated network packets and user testing in realistic networking lab situation.

The University will benefit from this project by providing remote access to virtualized, customized and elastic computing learning resources for computer networking and other technology based courses. The University could provide this resource to other external education partners, industry and colleges who will be able to access and use the resources. The main advantage of this solution is to cut capital expenditure and increase revenue and to increase the possibility for remote students to use resources as they would be in class.





Author	Kwok (Jacky) Kan
University	Oxford Brookes University
Title	Understanding patients with ABI (Acquired Brain Injury) experiences of fatigue through an automated user-driven design of a mobile application

Patients with Acquired Brain Injury (ABI) are not born with their injury; it is usually the result of an accident or illness. Understanding behaviour of patients with ABI is very difficult since they are likely to have memory problems and they become tired easily.

This research is an inter-disciplinary study, in which Computer Science (CS) meets Health and Life Sciences (HLS); the study will be HLS related (effects of fatigue in ABI patients) and the solution is provide by CS. The work will include the development of a smartwatch app that will allow the patients themselves to gather data very easily. Some are input manually, and some gathered automatically using contextual information such as location and activity data. To this end, a user-centred design methodology has been selected; this is where users are involved in the design and evaluation, measured using quantitative and qualitative metrics.

This research contributes to the body of knowledge by using technology to solve a problem in a different field of study. It is also a very new and novel use of the smartwatch. The data collected within the app will enable further research into the study of the patterns in which the patients experience fatigue. This includes being able to identify the frequency in which the patients experience fatigue. Furthermore we can establish a relationship between the activities that the patient carried out to which they experience fatigue most often. As a result, this improves the rehabilitation process for ABI patients.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Oluwasegun Kayode, Dr Marlene Mengoni, Prof Ruth Wilcox
University	University of Leeds
Title	Sensitivity of computational models of intervertebral disc to geometric changes

Degeneration or trauma of the intervertebral disc accounts for half of casual diagnosis of back pain. Nucleus augmentation is a method of treatment for intervertebral disc degeneration. Standardized in-vitro tests to assess the biomechanical behaviour of nucleus replacement materials have shown high variability between specimens which could explain failure during clinical trials. The aim of this project was to understand the variation in the performance of this treatment due to geometric changes using computational models.

Computational models (ScanIP, Simpleware Ltd) were built from CT images of six bovine tail specimens. Each specimen consisted of an intervertebral disc with 15mm of bone embedded in PMMA cement on either side of the disc. The finite element models (Abaqus, Simulia) replicated an experimental setup of static compression. Apparent stiffness values were determined using a tri-linear fit on total load/displacement data. Computational models were built varying either the ratios in the cross-sectional area of the nucleus pulposus (NP) and annulus fibrosus (AF) or the total volume of the disc, within anatomically relevant variation.

The general trend showed that a reduction in the NP:AF ratio led to a corresponding increase in the stiffness of the models. A 50% variation in the NP:AF ratio led to a variation in the stiffness values of less than 8%. No specific trend was noticed due to change in the total disc volume. The variation in the mechanical behaviour due to anatomical variation in the models is much lower than the variation between specimens. Although non-negligible, this work showed for the first time that anatomical variation is less relevant than variation in material properties to performance of the treatment. Consistency in material properties (such as water content) of specimens is required to highlight the effects of the treatment.





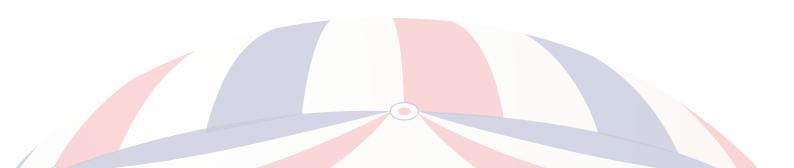
Author	James Keene and Dr Demetra Andreou
University	Bournemouth University
Title	Does an increase in biodiversity decrease the prevalence of infectious diseases?

Biodiversity offers key "ecosystem services" to human well-being, such as disease regulation which is currently under threat from human-caused deterioration in biodiversity. Currently, two opposing views are proposed, that increased biodiversity results in an amplification of disease prevalence or that increased diversity, in fact, has a diluting effect on disease prevalence.

The paper "Impacts of biodiversity on the emergence and transmission of infectious diseases" by Keesing et al 2010 is key in the current debate as it highlights the amplification and dilution effects. More than 1000 papers have cited it either supporting or rebuking the paper findings. The aim of this project is a meta-analysis of the 88 papers that matched my selection criteria of being cited by Keesing et al 2010 and refer to any eco-regions biodiversity effect on disease prevalence.

To weight each paper by its significance and reliability, primary data was collected from each paper such as the location of data collection, number of citations and journal impact factor. In order to analyse this data a Hedges' g will be carried out in order to eliminate scale differences then a simple-regression will be run separately on both supporting and rebuking papers in order to deduce which theory has the strongest supporting scientific evidence. The preliminary analysis suggests that biodiversity increase, in general, has a dilution effect on disease prevalence.

Conclusions from this work may be applied to the management of reducing the prevalence of disease.







Author	Scott Kelly
University	Blackpool and The Fylde College
Title	The Politics of Project Management

Politics. Like it or loathe it, it is a fact of modern organisational life. Yet despite this, there is little-to-no explicit reference in either the PM professional bodies of knowledge or academic literature as to the causes, effects and impacts of political behaviour in a project context, or its prevalence.

What is clear from the literature however is in most cases the Project Managers have no firm powerbase due to a lack of authority over the shared functional resources they draw upon to deliver their projects. With this in mind, the ability for a PM to overcome resistance and influence behaviours is somewhat limited; therefore should the act of political behaviour be embraced as a key competence within the successful project manager's toolkit? Should the PM profession step forward to champion both the need for, and the benefits of, political competence within Project Based Organisations (PBOs), and ultimately take the first step towards acknowledging that political behaviour should no longer remain exclusive to the confines of the boardroom or the Houses of Parliament, but should in-fact become part of the study of PM?

Through a mixed approach to research, namely online surveys and interviews with a sample of the PM population of a large PBO, the author seeks to establish not only the widely-held perceptions of political behaviour, but also understand whether these vary based on seniority within an organisation. Furthermore this research will establish the prevalence, causes and effects of political behaviour within a project context before identifying how the PM can utilise politics as a means of power and influence in the absence of a firm powerbase.





Author	Parvisha Khan
University	University of Huddersfield
Title	How Does Repeat Victimization Vary by Social Class? Secondary Data Analysis

According to Office for National Statistics (2016), the latest data from CSEW shows a total of 6.4 million victimisations reported by adults (over age of 16). If it is strongly concentrated, practical prevention of majority of the incidence is easy. (Ellingworth, Farrell and Pease, 1995; Ignatans and Pease, 2016).

This presentation aims to highlight differences in incidence and concentration of repeat victimization between social classes and to explore whether characteristics such as income, accommodation, gender and various lifestyle factors are associated with re-victimisation. Social class is frequently used to demonstrate status, rank, lifestyle and prestige (Crompton, 2008). Various factors linked with social class have been shown to be linked with uneven victimization such as cheaper accommodation (Ewart and Oatley, 2003), location (Morris, 1958) (Lammers, Menting, Ruiter, Bernasco, 2015; Robinson, 1998), low income (Tseloni and Pease, 2003) and lack of security measures (Johnson, Bowers and Hirschfield, 1997), yet such research lacks practical application due to difficulty of targeting single characteristics that vary.

Using CSEW data from recent sweeps, demographic and personal characteristics of households are aggregated into variables of social class and it is demonstrated that prevention of victimization and repeat victimization in particular should be focused upon the working class neighbourhoods across England and Wales. This is consistent with Zonal theory (Burgess, 1925) and the findings presented can lead to easily applicable and resource efficient practical prevention efforts.





Author	Robina Khan
University	University of Leeds
Title	Developing high sensitivity/specificity detection systems for proteomic studies using Adhirons coupled with fluorescence for studying protein interactions.

Protein interactions are at the heart of nearly all disease states identifying and characterising these interactions has led to the development of biological tools to expedite research in this area. This paper aims to present a review of the multiple types of interactions and the medley of biological tools employed in the study of proteomics.

Established methodologies employed to monitor in-vivo and in-vitro protein interactions have identified multiple types of interactions ranging from heterocomplexes to homocomplexes, obligate and non-obligate to transient and permanent interactions. However the drawback with current studies is that they are restricted to a limited number of interactions and fail to elucidate networks of interactions which are important in understanding the basis of disease and in particular cancer, a disease caused by aberrant signalling along complex pathways.

The diverse array of biological tools range from mass spectrometry, yeast-two hybrid, to techniques such as Fluorescence Resonance Energy Transfer (FRET) and Bioluminescence Resonance Energy Transfer (BRET). Biological fluorescence/luminescence approaches have been successful in providing spatiotemporal data of protein-protein interactions in live cells. In addition non-scaffold proteins such as Adhirons, DARPins and Repebodies have also been used with some success.

The study aims to take the use of Adhirons a step further by adapting them for use with fluorescence tools such as FRET techniques and to identify not just single interactions but networks of protein interactions by exploiting DNA paint. The journey into proteomics has already begun and at the present juncture has reached a significant milestone.





Author	P. Kinderman, P. Hagan, S. King, J. Bowman, J. Chahal, L. Gan, R. McKnight, C. Waldon, M. Smith, J. Gilbertson, S. Tai
University	University of Liverpool
Title	The feasibility and effectiveness of Catch It, an innovative CBT smartphone app

### Background:

The widespread use of smartphones makes effective therapies such as cognitive behavioural therapy (CBT) potentially accessible to large numbers of people.

Aims:

This paper reports the usage data of the first trial of Catch It, a new CBT smartphone app.

Method:

Uptake and usage rates, fidelity of user responses to CBT principles, and impact on reported negative and positive moods were assessed.

# Results:

A relatively modest proportion of people chose to download the app. Once used, the app tended to be used more than once, and 84% of the user-generated content was consistent with the basic concepts of CBT. There were statistically significant reductions in negative mood intensity and increases in positive mood intensity.

# Conclusions:

Smartphone apps have potential beneficial effects in mental health through the application of basic CBT principles. More research with randomised controlled trial designs should be conducted.

Declaration of interest: None.







Author	Tiffany Koch
University	Bournemouth University
Title	Today's child is tomorrow's consumer

Marketers express great interest into children as consumers as they constitute 'the future market for all goods and services' (McNeal and Ji 2003, p. 401). With the help of detailed research, they can build relationships with individuals who will develop into new customers with time. Identifying indicators of this generation will aid marketers in building brand loyalty, as 23% of brands that are used in early childhood are later used in adulthood' (Guest 1944). This study considers the importance of understanding the 'alpha generation' (children born post 2010 (Sterbenz 2010)) in reference to an area of little research; the effects soft drinks packaging has on the alpha generation. The perception, preferences and capabilities of developing brand loyalty (Zeghache 2014).

Adopting an interpretivist approach, data collection in the form of focus groups have been conducted with a sample of alpha generation children. Various activities were undertaken to encompass all packaging semiotics such as shape, colour, typography and imagery, exploring the effect it has on perceptions and preferences.

It is crucial to gain deeper understanding of the capabilities and knowledge of this alpha generation to ensue marketers are not missing opportunities, through the high influencing power children possess (Haryanto et al 2016.). The findings from this research inform how organisations can achieve brand equity and brand loyalty from this important consumer group.







Author	Marija Krivcova
University	Bournemouth University
Title	Restaurant menu design and more responsible consumer food choice: a managerial perspective

The restaurant sector imposes substantial impacts on the environment and society. A large share of the sector's negative impacts is attributed to irresponsible consumer choice. To enhance sustainability of food service provision, consumer choice ought to be architected to make it more responsible. Restaurant menu can be (re-)designed to inform customers about the environmental and societal implications of their choice and thus 'nudge' selection of more benign food options. This study explores managerial opinions on the role of menu design in shaping more responsible consumer choice. It finds that while restaurateurs acknowledge rising customer awareness about the ramifications of their food choice on personal health and the environment, they are sceptical about the use of menu design as a means to positively affect consumer choice. The lack of internal resources to implement and maintain the required menu changes, in constant customer demand, organisational and operational complexities represent the key barriers.







Author	Jessica Lake
University	Plymouth University
Title	CLiHP as part of a Work based Learning Module

The Crime Law in History Project (CLiHP) is an interdisciplinary research based project, involving students from Law, Criminology, and History, exploring the social history of crime and legal punishment. The project provides students the opportunity to work alongside academics from various disciplines and developing research skills that will provide opportunities for postgraduate studies. CLiHP provides students the chance to present research at events such as the ESRC Festival of Social Science, or through an article in the online journal, the Plymouth Law and Criminal Justice Review.

CLiHP is currently working on projects in association with Bodmin Jail, having been given three boxes of unseen documents, by the curator, that will give us the opportunity to investigate and catalogue, whereupon reports will be compiled to inform Bodmin Jail as to their content. There is also the opportunity through CLiHP and alongside the South West Police Heritage Trust as part of the 50th Anniversary of the amalgamation of Devon and Cornwall Police, to interview retired police officers. This gives students the chance to contribute towards the creation of an official record, on the practices and experiences of retired police officers, while at the same time develop transferable and soft skills.

As part of a work based learning module, offered by the law school to second and third year students, undergraduates are given the chance to work within CLiHP, to develop skills such as those mentioned above. At the end of the module students are expected to provide a portfolio with a reflective essay, which establishes the development of set goals agreed with their placement supervisor.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Jimmy Lam, Stefanos Argyros, Sian Brahach, Asia Lawrance & Shirley Wang Jia Ying
University	London School of Economics and Political Science, University of London
Title	On the fringes of LSE society? The impact of socioeconomic factors on student experience at the LSE

This paper aims to assess the impact of students' socioeconomic background on their experience at the LSE, focusing on sociocultural and economic barriers to achievement and integration. There is a wealth of literature on the impact of socioeconomic background in pre-university education and on post-university career progression. However, past research on inequality at the LSE has mainly centered on ethnic factors, without a commensurate analysis of the role of socioeconomic factors in the student experience.

The purpose of this research project is twofold. Firstly the research draws on surveys (215 responses) and aims to compare the experience of students from a plethora of different socioeconomic backgrounds. Secondly, the survey is complemented by semi-structured interviews (8) with students from disadvantaged socioeconomic backgrounds, to build a more in-depth understanding of this group's subjective experiences at the LSE.

The findings suggest that perceptions of the quality of teaching and support services at the LSE are similar across different socioeconomic backgrounds. However, students from disadvantaged socioeconomic backgrounds appear to be more susceptible to exclusion i.e. to lie 'on the fringes of LSE society', as one respondent put it. These students face distinctive challenges in their efforts to integrate socially and academically at the LSE.

The findings of the study indicate the need to develop practical institutional solutions to promote a more inclusive environment for LSE students, including those from disadvantaged backgrounds.





Author	Davis Laundon, Ben Larson, Kent McDonald, Nicole King, Pawel Burkhardt
University	Plymouth University
Title	3D Structural analysis of a colony-forming choanoflagellate

Choanoflagellates are the closest unicellular relatives of the animals. The marine choanoflagellate Salpingoeca rosetta is capable of transitioning through colonial life stages, and is therefore used as a model organism to study the origin of animal multicellularity. It is currently unclear as to whether cellular ultrastructure differs across S. rosetta cell types. Therefore, we used fluorescent vital staining and serial transmission electron microscopy (TEM) sectioning to visualise and 3D reconstruct the microanatomy of unicellular and colonial S. rosetta cells.

Our structomic reconstructions have enabled the enumeration and volumetric quantification of the choanoflagellate ultrastructure for the first time. Preliminary analysis has revealed that colonial cells exhibit more pseudopodia and cellular invaginations than observed in single cells, resulting in a more amoeboid morphology. As well as this, we have identified morphologically distinct vesicle populations. These data represent the first 3D structural analysis of any choanoflagellate species, which will help to better illuminate the physical constraints and modifications of animal multicellularity.





Author	Lucas Le Goff
University	University College Maastricht
Title	Literary Investigation into the Animalism of Human Nature: Lord of the Flies.

Embedded within tradition lies the assumption of an animalistic conception of human nature. This conception regards human animals as being essentially evil at the core of their being, evilness that is equated with non-human animals, and that has been coined as Veneer Theory. This paradigm has increasingly been deconstructed in the past decades within a wide range of disciplines including philosophy (e.g. Foucault), linguistics (e.g. Wittgenstein), and primatology (e.g. de Waal). Nevertheless, this emerging body of criticism has not yet been adequately assessed via literature. Addressing this gap in contemporary research could unravel essential perspectives regarding the presence of this animalistic conception within literature, and hence the role of literature as cultural work in creating and maintaining this conception.

These considerations form the genesis of this project which revolves around the following research question: How has William Golding's Lord of the Flies partaken in the 20th century traditional animalistic view of human nature?

This project will mainly focus on analysing 20th century receptions of Lord of the Flies in the world of academia and amongst scholars as well as analysing how the book itself conveys this animalistic conception.

Major findings include the supporting and impactful role of Lord of the Flies as a cultural work in further propagating this animalistic paradigm of human nature. Ways in which the novel has swayed the minds 'such as through metaphors and the portrayal of brutal behaviour' re also delineated.





Author	Sarikh Limbu, Steve Trim, Craig Smith, Carol Trim and Cornelia Wilson
University	Canterbury Christ Church University
Title	Characterization of exosomes in venom and investigation of their roles in the pathology of animal bites
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Animal venoms are a complex mixture of proteins and other biological molecules that have an effect on metabolic processes. Our preliminary research has identified the presence of exosomes in venoms. These are small particles consisting of fluid enclosed by a lipid bilayer around 30nm-150nm containing biological materials such as protein, DNA and RNA. They mediate intercellular communication between different cell types in the body, and thus affect the normal processes of the body. Investigating and characterising venom exosomes may lead to further applications in the biomedical industry and therefore this research will allow a better understanding of exosomes in venom, their roles and uptake in cells. This will lay the foundations for the progress for their use in medicine.

The aim of this project is to characterise snake and spider venom exosomes and understand their uptake and role in cancer cells. To achieve this, exosomes have been purified from three different species via ultracentrifugation. A number of experimental approaches have been performed including Western blotting, dot blot, size exclusion, Bradford assay, particle sizing, zeta potential measurement and transition electromagnetic images were also taken. Further analysis will be carried by cell culture where the uptake and effect of the exosome will be studied. Current western blot results have shown binding of antibodies such as Flotillin2. The characterisation of venom exosomes in this study could enhance the effectiveness of anti-venom treatment and the new discovery of alternative therapeutics in the treatment of human disease.





Author	Angela Lin, Evelyn Andrada-Mantoiu, Valeria Vigilante, Shaun Tomas, Kia Muukkonen
University	University of Sheffield
Title	Attitudes towards migration in Sheffield: impacts in a world population of ten billion people

The topic of immigration has recently been at the very heart of current debates. Considering this, our research looked into attitudes towards migration on 'How does the exposure to cultural diversity influence attitudes towards migration?'.

The target population consisted of UK residents, focusing on Sheffield residents in particular. We conducted a survey among the people of Sheffield, opting for a non-probabilistic volunteer sampling strategy and distributing the survey online via the university channels and community centres. We received 381 responses in 11 days. The survey managed to gain responses from 39 different nationalities, 40.3 percent of participants being full time students and 55.4 percent in employment, 64.3 percent being female and 34.6 being male, with the age ranging from 20 to 65 years.

The hypothesis tested was 'The more one is exposed to a culturally diverse environment, the more positive their attitude towards migration is'. We used both descriptive statistics including frequency tables and inferential statistics, cross-tabulations, identifying a correlation between exposure to a culturally diverse environment and a positive attitude towards migration.

A key observation was that when individuals had a majority of international friends, they felt positively towards increasing migration, whereas 'some non-UK friends' resulted in neutral opinions or disagreement. Overall, the evidence suggests that exposure to different cultures, leads to a more positive view on migration.





Author	Aimee Lloyd, Gregory Waltham and Joshua Holden
University	University of Leeds
Title	SMART pad project - Intergration of a wireless RFID biosensor to an incontinence pad to aid urine diagnostic testing

### Clinical relevance:

Proof of concept study to investigate the feasibility of creating a wireless Radio Frequency Identification Device (RFID) sensor that could be placed in an incontinence pad to detect urinary metabolites e.g. nitrites. Current urinary testing devices are simplistic and rely on the patient's ability to provide an adequate sample; which can be difficult for some patients such as those with incontinence problems. The aim of the project was to combine existing technologies to diagnose urinary related issues.

### Method:

Interdisciplinary student team (Medicine, Biological sciences and Mechanical Engineering). Split up to concentrate on 3 key areas 1) metabotlite ranges, 2) properties of the biosensor, 3) transmitting the current from the biosensor to an RFID reader. A mock incontinence experiment was created to simulate the conditions that the sensor would be exposed to in an incontinence pad with 3 conditions: dry, wet and nitrite or urinary tract infection positive (UTI).

# Results:

Dry condition the nitrite sensor produced no response, in the wet condition it produced a small response and in the nitrite positive condition it produced a significantly larger response. The experiments carried out found the current could only be mediated by nitrite ions.

# Conclusions:

This preliminary data suggests that a wireless RFID nitrite sensor incorporated into an incontinence pad is feasible; however further research needs to be conducted into the validity and safety of the sensor. Advancements in the project include collection of data from commercially available moisture detecting RFID tags, and their suitability to the application of incontinence.





Author	Gary Longley and Katharine Clegg
University	University Campus Oldham
Title	The public's general attitudes towards sex offender being reintegrated back into the community after completing their sentence and rehabilitation programme.

When people hear the term 'sex offender', negative emotions or attitudes are often sparked; leading to idiosyncratic views of the offender (Willis, Levenson & Ward, 2010). These attitudes or feelings stem from several variables such as myths, values, misinformed or misrepresented information through either social media, media and the CJS (Church, Wakeman, Miller, Clements & Sun, 2008). Such attitudes could have major significance on the fabric of society and an individual, if not addressed (Harper & Hogue, 2015).

The current research hypothesises through better awareness of the types of sexual offending and awareness of rehabilitation, the publics' negative attitudes will have a significant change to a more positive attitude. The study also hypothesises there will be a significantly high social distance toward a male sex offender being reintegrated into society, than a female sex offender.

The methodology used is quantitative method through the use of questionnaires. There are 5 stages in the methodology, incorporating the Attitudes Towards Sexual offending Questionnaire scale (ATS) devised by Hogue (1993) and a case vignette describing a low-level sexual offenses, in which the offender (either male or female) was convicted and charged and how they actively engaged in a rehabilitation programme whilst in prison.

The preliminary conclusion is a significant difference in the social distance of the public's attitudes towards the male sex offender than female sex offenders, even though the types of sexual offences are the same. Demonstrating that attitudes are socially constructed.





Author	Michael Love
University	Bristol, University of the West of England
Title	Expression and Localisation of Splicesomal Proteins SNRNP200, RP9 and DHX38 in 661W photoreceptor like cells
D D.	

Retinitis Pigmentosa (RP) is the most common form of inherited blindness. Mutations in SNRNP200 (Small Nuclear Ribonucleoprotein U5 Subunit 200), RP9 (Retinitis Pigmentosa 9) and DHX38 (DEAH-Box Helicase 38) genes have been found in individuals with RP. These code for protein components of the spliceosome, although it is not understood why these mutations lead to RP. Recent work suggests spliceosomal proteins may have additional roles outside the nucleus at the primary cilium, a structure which is important in the photoreceptor cells of the retina. By studying the localisation of these proteins in the 661W photoreceptor cell line, we may determine if they have further specific retinal functions outside of splicing.

661W cells were grown in culture for a few weeks and then introduced to hypoxic conditions to encourage the growth of cilia. They were then fixed and stained for SNRNP200, RP9 and DHX38 separately and then all stained for acetylated alpha tubulin to label stable microtubules in cilia. In addition staining for opsins and cone arrestin was performed to confirm the photoreceptor origin of 661W cells.

The cells expressed opsins and cone arrestin, confirming that they are photoreceptor cells. DHX38, RP9 and SNRNP200 localised to nuclear speckles, but only DHX38 was localised to the basal body of primary cilia. This localisation suggests that DHX38 may be involved in cilia or photoreceptor outer segment function or development. This may explain why mutations in DHX38 cause RP. Further experiments in 661W cells may help confirm the mechanism by which DHX38 causes RP.





Author	Jessica Lowe
University	Roehampton University
Title	A somatic approach to dance therapy: How can somatic practices be used to facilitate and rehabilitate the dancing body by overcoming psychological and physical boundaries?

The purpose of this research aims to analyse the outcomes of using somatic, or mind-body practices within dance, as a legitimate approach to therapeutic healing for professional, non-professional and community dancers.

One primary issue regarding research in this field concentrates on an unwillingness to pursue 'somatics' due to its complex nature, carrying with it terminology such as 'spirit' and 'energy', connoting themes of religion and Eastern influences. This leads to the dismissal of somatic practice as an area of study, causing issues of discourse and validity to arise in what may be perceived as an eccentric approach to dance therapy. Methods I have used to address this concern consist of primary research and experience in Body and Brain Training. This is an umbrella term for the mindful practices of Dahn Yoga, Ki-Gong and Meditation- approaches to therapeutic healing that I will be focusing on in my presentation, as proven fundamental in their healing abilities following my research at The Body and Brain Centre.

Thus far, preliminary research suggests combined breathing techniques in Dahn Yoga to be beneficial in improving a balanced metabolism, energy and vitality, alongside promoting circulatory health in dancers and non-dancers. From a psychological perspective, an inquiry into motor learning of the central nervous system suggests advances can be made to one's movement and muscular memory as a result of somatic dance therapy. This presentation will highlight the crucial connections between mind, body and spirit in successfully overcoming psychological and physical boundaries, lessening the need for medicinal treatment.





Author	Charlotte Loy
University	Bournemouth University
Title	Investigating a Cholera Mass Grave Mortality Profile from the city of Sheffield

A cholera mass burial site from 1832 in the centre of Sheffield has created a unique opportunity to evaluate a catastrophic mortality profile from archival sources rather than excavation. A catastrophic mortality profile is useful in archaeology and forensic science as it can show the expected age trends in a mass burial. A profile is created when an event kills off a larger portion of the population than normal and the ages of the individuals are then recorded as a graph. Using archives in the city of Sheffield a mortality profile for almost 90% of the cholera victims has been created.

From the comparison of the cholera mortality profile with a contemporary cemetery population it is clear there are differences between the disease mass burial and the normal practises at the time. This means it is a viable catastrophic mortality profile and can be used as comparison to other sites. It is also an example of the ratio of people of certain ages living in Sheffield at the time. As this is the first time the 1832 outbreak has been analysed in such a way it creates a useful guide to investigating the site. In a wider sense it could be used to compare with other mass burials, archaeological or forensic, to determine if they are disease based or other. It may also be compared to other excavated disease mass burials and analysed to see if excavation shows a bias in remains of certain ages.



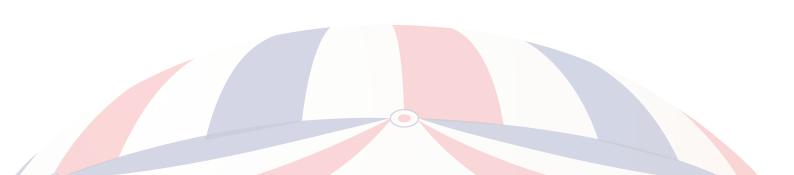


Author	Elena Luca and Karl Grainger
University	London Metropolitan University
Title	The effect of cognitive tasks on star excursion balance test performance of Muay Thai Fighters

Dynamic balance is an important element in the martial art of Muay Thai that contributes to kicking, as fighters need to produce powerful kicks while maintaining stability. During competition poor balance is often a determinant in the knockout and loss of points attributed by judges.

The aim of this study was to compare the difference in dynamic balance between advanced and beginner level fighters. Sixteen male Muay Thai fighters were separated into two groups of eight. Advanced ( $29.0 \pm 3.5$  years) were classified as those that had competed professionally for more than one year and beginners ( $22.5 \pm 4.2$  years) were those having no more that 6 months training and having never competed. Dynamic balance was measured with the Star Excursion Balance Test (SEBT). The subjects performed the test with dominant and non-dominant leg in two conditions: SEBT alone (SEBT) and SEBT with auditory cognitive task (SEBT+COG). No difference was observed between the two groups when comparing level (advanced vs beginners) or stance leg (dominant vs non-dominant), but there was a significant difference between the two tests in the advanced group for both the dominant (p = 0.018, 770% SEBT vs 726% SEBT+COG) and non-dominant legs (p = 0.026, 800% SEBT vs 758% SEBT+COG).

These results suggest that additional auditory cues significantly impair the balance of advanced Muay Thai fighters, signifying advanced Muay Thai fighters stability is more easily affected than beginners. In order to improve advanced fighters' performance training practice should develop balance skills, including practice with cognitive interference.







Author	Rosie Lumley and Fotini Tsofliou
University	Bournemouth University
Title	The Influence of Lunch clubs on the nutritional status of attendees (65+) in Dorset

#### Background:

Poor health in adults 65+ is associated with poor diet & social isolation. Lunch clubs ('LC') offer community meals to this population. Limited research suggests LCs have potential to address these issues (Burke et al. 2011).

### Aim:

Investigate this hypothesis by exploring characteristics of LC participants: assess impact on dietary intake/behaviour & social well-being.

### Method:

A paper questionnaire was taken in 5 LCs exploring: characteristics of attendees, participation habits, nutritional status & self-rated health (n=40). Answers analysed using SPSSv22. 3 x 24hr dietary recalls ('DR') were taken (n=40) inc. day of LC & two days not at LC, analysed using Netwisp v4.0 and SPSS v 22 (n=12). The %DRVs achieved at LC were compared to %DRVs achieved on mean of 2 days not at a LC. The significance of the difference was calculated.

### Results:

Majority: 75+ (77.5%), overweight (average BMI 27.2 kg/m2), living alone (65%), on state pension only (50%), self-rated health 'v good to good' (67.5%), had attended LCs a year+ (85%) sighting 'meeting friends' as main attendance reason (92%). The DRs showed %DRV significantly higher on LC day for: protein (pË0.001), total carbohydrates (p= 0.05), energy (pË0.001), potassium (pË0.001), calcium (p=0.01), vitamin A (p=0.02), folate (p=0.01), vitamin C (p=0.05). There was no significance between water, fat, vitamin D, dietary fibre & others.

# Conclusion:

LCs have potential to increase dietary intake of attendees and improve social well-being. Evidence is provided for promotion of LCs by public health as an effective means to reduce age-related illness & social isolation. Further research is needed to support this.





Author	Jorge M. Moreira
University	London Metropolitan University
Title	Design of Cholinesterase Inhibitors as therapeutic agents in the treatment of Alzheimer's disease

Dementia is characterised by dramatic loss of cognitive function caused by neurodegeneration. It was estimated that in 2015, 46.8 million people around the globe suffered from dementia, with numbers increasing. As the leading cause of dementia, Alzheimer's disease (AD) is associated with progressive memory loss, and many other physical and cognitive limitations. It is believed that the symptoms of AD are in part a result of low cholinergic activity, where levels of the neurotransmitter acetylcholine are abnormally low. One way to enhance levels of acetylcholine is to prevent it being broken down by the enzyme acetylcholinesterase (AChE), hence inhibitors of AChE are a suggested therapeutic approach to reduce the symptoms of AD. A set of 22 analogous compounds were synthesised and assayed for AChE inhibition and butyrylcholinesterase (BChE) inhibition.

The aim of this study was to elucidate the most potent AChE and BChE inhibitor, access which molecular features are responsible for lowered cytotoxicity and provide a target structure with high inhibition and low cytotoxicity for future studies. Several features were identified as necessary for strong inhibition whilst only 2 were associated with low toxicity. Based on this study, a set of new compounds with expected lowered cytotoxicity and retained inhibitory capacity were proposed for future synthesis and testing.





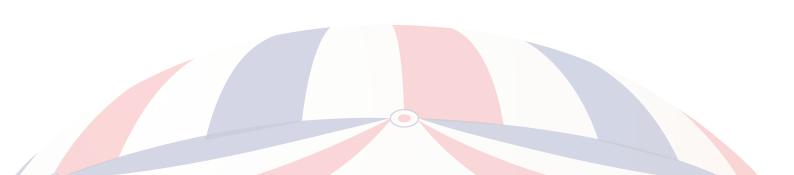


Author	Amii Macleod
University	University of East London
Title	Two worlds collide? A study of how Pokémon GO affects public behaviour

Pokémon GO is an augmented reality game, used to access the virtual world as people collect Pokémon as part of the gaming experience. Players immerse themselves into a reality that is familiar from the card game and TV show, whereby the virtual world superimposes itself onto familiar surroundings of the real world. Pokémon GO '[reimagines] what a space means and how a technology can ultimately give new meaning to space...' (Farman, 2014: 384). This suggests that physical and virtual space can be separate and yet the same.

I aim to investigate players' engagement with the physical and virtual worlds surrounding Pokémon GO, exploring how the notions of space and safety change in relation to Pokémon GO; how players interact with the physical world while in the virtual world; and whether physical safety is considered at all.

Multiple methods are used: Expert interviews with gamification scholars who specialise in the augmented reality and physical space is used to 'obtain specific and in-depth information and [is] at the same time less time consuming than many other methods' (Van Audenhove, 2007: 5). An online questionnaire is used to survey a larger number of Pokémon GO players via a range of social media. Using the participant observation I investigate players' behaviour while gaming, and use the data to inform the online survey.







Author	George Madges and Idris Miles
University	Bournemouth University
Title	AnimDiff: Towards Revision Control for Computer Animation

The process of animating a complex 3D character model can be a time consuming activity which may take several iterations and several artists working in collaboration, each iteration improving some elements of the animation but potentially introducing undesirable artefact's in others.

In software development similar problems exist that are addressed by version control systems that enable collaboration between different developers, allow inspection of code history and provide tools for merging code contributed by different developers. These systems streamline the software development process.

Similar workflows have recently been introduced for computer graphics to aid the creation of 3D computer generated models. Currently available systems allow designers and artists to compare static (non-animated) 3D models with one another to highlight differences and modifications (e.g. the system marketed at http://3drepo.org), but lack the capability to compare animated 3D models.

We propose a novel approach to address the limitations of these systems by introducing these techniques in the context of 3D animation. Our method, implemented as an artist's tool, allows a user (designer or artist) to compare multiple iterations of their animated models and display differences between them, allowing close inspection of the differences on a joint by joint basis.

We achieve this by iterating through each joint of the 3D model and compute the difference between each 3D transformations at synchronized keyframe. These differences can be thought of as the deviations between animations which our system visually highlights by altering the 3D model's shading at the affected joints.





Author	Abbie Maguire
University	Queen Mary University of London
Title	Do accent, vowel type, and phonation affect the locus equations of English, and is this detectable in the speech signal?

Locus equations are visual representations of F2 at the start of consonant- vowel transitions to the F2 at the middle of the vowel. They assume a cognitive 'target value' in a production domain, and are highly sensitive to contextinduced variability, but their empirical precision is vital for their use in developing speech synthesis software. Prior to the present study, locus equations have only be examined cross-linguistically, and not intra-language, meaning there is no way to contextualise differences in stratified groups of speakers. This research uses the recordings of six participants with Received Pronunciation, Birmingham and Essex accents, three male and three female, each producing CV structures using four different vowels, in modal voice and whispering for each token. For Experiment I, the loci values will be collected and then displayed on a scatterplot graph to identify any outliers from the trend line derived from generalised loci values achieved from previous cross-linguistic analysis. Experiment II requires six different participants to listen to the tokens produced by the Experiment I group to see if the independent variables used in this investigation are detectable in the speech signal, which has never before been examined. This would not only improve the accuracy of speech synthesis, it would also provide seminal ideas into the way coarticulation is examined as an influence within connected speech. Provisionally, the hypothesis for the present study is that the tokens collected from the participants will reveal slight, but significant, numerical outliers, grouped by the independent variables.





Author	Lance Malcolm
University	Staffordshire University
Title	The quality of friction ridge detail developed on different types of plastics using Supra Nano Fluorescent Wet Powders.

Fingerprints are one of the most uniquely identifying forms of evidence. Fingerprints are commonly found at crime scenes and developed further in laboratories using an array of different techniques. The overall objective of the study was to validate the use of Supra Nano Fluorescent Wet Powders within West Midlands Police Fingerprint Development Laboratory. The study aimed to show if there was a difference between the developments of latent friction ridge detail using Supra Nano Fluorescent Wet Powder, Black and White Wet Power and Cyanoacrylate fuming with Basic Yellow 40. The methods of development were all in accordance with the Fingerprint Visualisation Manual. For this study finger marks from a good, medium and poor donor were deposited on common plastic types. The plastics used were Polyethylene Terephthalate (Type 1), High Density Polyethylene (Type 2), Low Density Polyethylene (Type 4) and Polypropylene (Type 5). The substrates were left for one day, one week, two weeks, four weeks and eight weeks. Post development, a grading system was applied to determine the quality of friction ridge detail on each of the substrates.

The results from the grading system will determine if the Supra Nano Fluorescent Wet Powders will be used to develop latent finger marks in West Midlands Police Fingerprint Development Laboratory in future.







Author	Asmah Mansur-Williams
University	Bournemouth University
Title	Are Muslim Consumers Fashion Next Biggest Opportunity?

Fashion and Islam, self-contradictory to some, an innate form of self-expression to others. Modest Fashion, often used as a marker for dressing interpreted by followers of Islam is largely seen as idiosyncratic and nearly confined. However, with globalisation and the convergence of social media, Modest Fashion consumers are increasingly representing significant opportunities within fashion.

Amidst the current revolution in the fashion industry is the speed in changing consumer preferences. 'Consumer kinship' which includes the rise in Modest Fashion as a defining shift in consumer preference was one of the top five fashion industry trend of 2016. Over the past few years, Muslim consumers are also continuously creating an identity through fashion and are yearning to be recognised as fashion players within the industry.

The rise of this global development is increasingly a focal point of discussion but the problem lies in the industry's lack of diversity in recognising Muslim consumers and influencers. Still young and rapidly growing, the Muslim fashion industry expected to reach \$488 billion by 2019, an 82% increase from 2013 presents an arcade of sizable opportunities for players in the Fashion Industry. The growing trend also plays a pivotal role in empowerment of women through fashion within the Muslim community.

Although, there has been increased interest in the opportunities Muslim Fashion consumers represent, very little has been written academically. This research will add to the addressing question of Fashion's missed Muslim opportunity - of how and why brands and retailers should recognise the £367bn Muslim fashion market.





Author	Lizzie Manwaring
University	Queen Mary University of London
Title	Mum's The Word: Shakespeare's Widowed Fathers and Their Daughters
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Early-modern English drama, though hugely influenced by Greek tragedy, often differs from it in a key way: while Greek plays often feature vital maternal figures, there is a glaring absence of Mothers in Shakespeare. Responding to this conspicuous vacuity which needs addressing, my research presentation will explore the importance of the fatherdaughter relationship where the Mother is not present in Shakespeare's works King Lear, The Tempest and Hamlet. Furthermore, I will examine how this is challenged in the 2010s' with gender-reversed productions executed by directors, all notably female, at renowned institutions: the Old Vic, the Donmar and the Royal Exchange.

Firstly, I will examine how this is reflected in the plays' early modern contexts, beginning a dialogue about maternity/ paternity and its ethics. Through texts such as Jardine's Still Harping on Daughters, I will consider the role of women in relation to their fathers in the sixteenth and seventeenth centuries within patriarchal households. By providing close readings of the plays and examining Freudian and Feminist readings (including Adelman's Suffocating Mothers, and Belsey's Why Shakespeare?) of the various texts, I then will analyze how the fathers refer to the processes of maternity, examining nursing and childbirth in particular, which reflect a male anxiety or fetishisation of a female ventriloquism. Through the lens of the absent mother, this praeteritio will act as a vehicle to investigate these fathers' femininity and how they employ various roles, including mother and child, illuminated and elucidated by the genderreversed productions reflecting 2016's demand for feminism within Shakespeare.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Kopano Mapesa Liam Mistry, Thomas W. Bousfield, Jason E. Camp
University	University of Huddersfield
Title	Urea Formation in the Bio-alternative Solvent Cyrene: Scope and Limitations

Urea derivatives are an important class of compounds that have a strong interest in many areas, such as medicinal chemistry, agrochemicals and materials science. Due to their importance, a range of synthetic routes have been developed, but recent emphasis in industry is on developing greener and more sustainable processes focusing on solvent selection.

The most common route for the synthesis of ureas is the reaction of isocyanates with amines. The reaction can be carried out in a range of solvents but is commonly done in DMF and halogenated solvents. There has been environmental safety and health legislation to minimise the use of solvents that are characterised as being of risk. Dipolar aprotic solvents such DMF and NMP have found themselves high on the priority list for replacement in the pharmaceutical industry and companies have employed a high amount of resources in an effort to develop more sustainable processes that do not rely on the use of high risk solvents. One possible alternative is Cyrene, which is a green bioderived solvent from waste cellulose. It has been found to have similar properties to other dipolar aprotic solvents, including DMF.

Our group has shown that a diverse range of unsymmetrical ureas can be readily synthesised from secondary amines and isocyanates in Cyrene in good to excellent yields. Using Cyrene has led to a decrease in the overall waste produced and eliminated the need for problematic solvents such as DMF. Additionally, 19F NMR was used to show that the rate of the reaction in Cyrene was comparable to other more toxic alternatives. My research into the development of this important alternative for urea formation will be presented.





Author	Ruth Marchant
University	Blackpool and The Fylde College
Title	An investigation into the potential opportunities and challenges of Brexit for the UK air travel industry

The UK economy appears to have weathered the initial shock of the Brexit vote – 5 months after the 23rd June 2016, although the value of Sterling remains near a 30-year low. Opinions are divided over the long-term effects of leaving the EU. The "Open skies" agreement represents one of the most tangible benefits of European Union membership for the air travel industry. Since 1994, any EU airline has been free to fly between any two points in Europe. The freedom to fly has allowed budget airlines EasyJet and Ryanair to flourish, and has forced "legacy" carriers such as BA, Air France and Lufthansa to cut costs and fares in order to compete. On any European journey the typical fare is around half what it was in the early 1990s - and anyone who can be flexible about timing can save even more money.

The aim of this study is to investigate some of the key factors that could potentially present opportunities and challenges to the UK air travel industry in order to provide a balanced picture of the industry post Brexit.

The study will be conducted using mixed methods; focus group with current university degree tourism students (Blackpool and the Fylde College), interviews will be held with leading industry experts, such as Visit Blackpool's senior visitor service assistant.

The findings of the study will explore the elasticity of the price which the airline travellers are prepared to face when considering their European airline trips.





Author	Leah Marrow
University	Bournemouth University
Title	The role of socio demographics and travel experience on the tourism decision making process: package vs independent travel

The purpose of this study is to explore the motivations and decision making factors that contribute to the selection of package or independent travel, and how they change throughout the consumer life cycle. This study aims to build on existing literature, exploring tourist typologies and influences on the consumer decision making process.

A long term trend has been identified whereby the market share of independent holidays is growing at the expense of package tours and whilst previous research identifies the impact of personality, socio economic background and prior travel experience on the selection of holiday destinations, there has been little research on the differing typologies of customers taking independent or package holidays.

This research aims to identify the impact of socio-demographic factors, e.g. average income, age and familial status, psychological factors and other factors including price and the holiday destination on the choice of holiday type. Primary data will be collected using a quantitative online survey to establish the recent holiday booking habits of consumers at different stages of the life cycle. The findings will be analysed with the aim of creating a model which explains the selection process of package or independent travel at different stages of the consumer life cycle.







Author	Emily Marsay
University	University of Exeter
Title	To what extent does the climate change crisis present a moment of 'conjuncture', whereby women's advocates and environmentalists come together to challenge the neoliberal hegemony?

As Gramsci once wrote: 'The crisis consists precisely in the fact that the old is dying and the new cannot be born.' Today, negative consequences of our current economic system can be felt through the crisis of climate change, which can be seen as symptoms of a 'dying' system: presenting the opportunity, as Gramsci once theorised, for the residing hegemony to be contested. Through framing the climate change crisis as a consequence of our failed economic system, this presents the opportunity for counter-hegemonic forces to put forward new solutions. If the ability of capitalism to overcome its self-made strains and stresses is a necessary condition for its historic continuance, the inability of capitalism to overcome the climate change crisis through market-based solutions presents a moment of conjuncture, whereby all groups oppressed by the same crisis, such as women's groups, marginalised communities in the Global South and youth advocates for inter-generational equity, have a stake in challenging the hegemony. In so doing they may present the opportunity for a new organic ideology to arise that 'constructs a unity out of difference'.

The struggle presented by climate change steers the global conversation towards how nations can work together to achieve aspects of global justice: however, to what extent are women's groups and environmentalists coming together to challenge the capitalist hegemony at the root of the climate change crisis? I investigate this through a series of interviews and qualitative research, focusing on the processes surrounding the UNFCCC Climate change negotiations.





Author	Kate Martincova and Ilke Dagli
University	University of Warwick
Title	Conflict of Interest: Can business networks and democratisation coexist in Czech Republic without the former limiting the latter?

My research tackles the issue of democratisation in Czech Republic but is also shared by most post-communist countries in Central and Eastern Europe, where communist-era political elites often become prominent businessmen closely linked to states' key institutions. A prime example is Andrej Babi<sub>j</sub>, the Deputy Prime Minister and the Minister of Finance, who owns for example the major Czech agricultural conglomerate 'Agrofert' and the biggest Czech multimedia company 'MAFRA'. I examined if and how these dynamics thwart the democratisation process in Czech public institutions.

I conducted 14 semi-structured interviews with politicians, diplomats, journalists, economists, businessmen and academics. I divided the set of questions in 3 categories: 1) The concept of democratisation in Czech Republic since 1989; 2) Involvement of businessmen in political representation and its implications for democracy and democratisation; 3) respondents' own perceptions of Babi' position as a businessman and politician with regards to democracy.

My key findings include: 1) Although Czech Republic is institutionally democratic at its foundations, respondents perceive it to be not democratic enough when compared to other Western democracies, such as the UK or the USA. 2) Even though most respondents do not have strong objections against businessmen entering politics in general, when it comes to Mr Babi<sub>i</sub>, this perception is more ambivalent; 3) Most of the respondents have serious doubts about Mr Babi<sub>i</sub>' understanding of democracy and democratic leadership. They express that his position is latent with conflict of interest and that he should choose between politics and business.





Author	Samuel Matthews
University	Queen Mary University of London
Title	Characterisation of Saturn's F Ring using Cassini ISS Images

Saturn's F ring lies 3500km beyond the outer most edge of the planet's main ring system. It is a uniquely active place in the Solar System where different types of phenomena occur that are not seen elsewhere in any other ring system. Collisions between the F ring core and mostly unseen objects with around 10km diameter, cause jets to extend hundreds of kilometres from the ring while its inner shepherding satellite, Prometheus, perturbs the ring causing 'channels' and 'streamers' a stream of particles from the ring to the satellite.

The F ring was discovered in 1979 by Pioneer 11 and since 2004 it has been imaged by the Cassini-Huygens spacecraft. Cassini images have been used to construct detailed 360Ű mosaics of the F ring, allowing for a more detailed look at the ring and its various phenomena.

Although the active nature of the ring has been extensively documented, its time variability has yet to be quantified. Applying imaging analysis software to Cassini pictures of the ring, the aims of this paper are (i) to quantify the width and distortion of the F ring core and (ii) to characterise the degree of activity in the ring, by calculating the image entropy as a function of time. This will allow for comparisons to be made between the effects of similar events at different times. The intention is to look for correlations between ring activity and the relative configuration with Prometheus' orbit allowing for a greater understanding of the dynamics of Saturn's F ring.





Author	Natalie Mayor
University	Blackpool and The Fylde College
Title	The 21st Century's Unconscious Gender Labyrinth – Evidence from Project Management

Whilst the metaphorical glass ceiling is thought by some to have become obsolete with claims of increasing numbers of women entering top positions, business environments around project management do not appear to reflect this. Here it would appear the unconscious gender labyrinth remains especially within typically masculine environments as it is grounded in cultural masculinity of leaders creating stereotypes that are often still potent barriers to women's advancement. Psychologists have attempted to explain these negative perceptions through role congruity theory (RCT) which examines the congruity between gender roles dictating that the potential for prejudice against female leaders is because of its dissimilarity to the expectations people typically have about leaders.

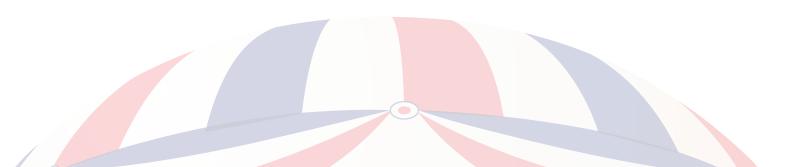
RCT has been strongly linked within literature to leadership however no such link has been examined specifically to project management. The study will ascertain whether this phenomenon does exist within a project management setting and will delve into the lived experiences of those who may have been impacted. It will incorporate a feminist critical philosophical perspective utilising a mixed method approach through the use of action research, interviews and a questionnaire. Early findings suggest RCT does indeed exist within project management. At this time the implications this has on individuals are unknown although the study aims to provide an insight into the potential repercussions in order to educate businesses on the potential negative effects of this phenomenon.





Author	Rachel McAuliffe
University	Plymouth University
Title	How are the needs of children from LGBT families from a country town in Devon perceived, represented and met by Early Years practitioners in their Nursery?

Currently, Drone transponders are being developed that interact with commercial Air Traffic Control (ATC) and airliners that send and receive location data of drones. The aim of this paper is to develop a transponder - based system to improve overall traffic in commercial airspace. This is only possible through development of a complete design that hinders mechanical and electrical controls governing the flight path of drones.







Author	Danielle McBride
University	Staffordshire University
Title	An Evaluation of heat associated fractures on porcine dental remains

Human identification is one of the most important elements within forensic investigations, especially surrounding scenes where there has been significant trauma to the body of an individual. Teeth are one of the most resilient elements in the human body, not only are they able to offer the possibility for the recovery of any genetic material but can help understand the circumstances surrounding various scenes, such as the temperatures that may have been reached in a fire. In total 24 premolars and 24 molars were extracted from four adult porcine mandibles and maxillae. These samples were burned in a muffle furnace between the temperatures of 300°C to 800°C in 100°C intervals, and were subjected to these different intensities during 15, 30, 45 and 60 minutes.

The results demonstrated a positive correlation between weight loss percentage and temperature and duration of burning. The teeth also displayed a variety of fracture patterns, with mostly patina fractures occurring toward the cementoenamel junction and transverse fractures along the roots. The variety of fracture patterns indicated that different fracture types occurred at particular times and temperatures when burnt, therefore suggesting that within crime scenes fracture patterns can be compared with studies in order to understand the circumstances. These results from the project have the significance of being able to reconstruct a crime scene based around the heat associated changes, thus concluding how a fire may have started and the temperature and timings it occurred for.





Author	Sarah McCloskey
University	University of Sheffield
Title	How might Brexit impact upon the constitutional principles of democracy and accountability as they operate in the UK constitution, with particular attention to the role of public inquiries?

Looking at how Brexit has demonstrated the public's expectations of governmental accountability and their concept of what democracy is, these developments will be applied to the role of public inquiries: a less frequent, but nonetheless essential, aspect of accountability in the UK constitution. Given the timing of the Chilcot report's release and that of the referendum result, the proximity in time offers the perfect opportunity to apply these newfound ideals to the inquiry, critiquing its success, devising what lessons it can provide for the future of public inquiries, and ultimately advocate codifying these findings in law to prevent the ad hoc failure of the process (as is perhaps best demonstrated by the Child Sex Abuse inquiry).

The uncertainty of public inquiries, and of Brexit, along with the constant media exposure of scandals means that the question of the future place and process of public inquiries is vital. Therefore, this research comes at an apt time and pre-empts a question that will no doubt dominate headlines once the chaos of Miller has calmed. Given the recent nature of both events, I have used the existing literature as well as theory and insight from the Chilcot inquiry to provide a way in to achieving my aforementioned objectives, thus producing a unique piece of research that contributes a fresh perspective on public inquiries at a time when the respect for them is under threat. This research offers the solution to maintain their esteemed position and thus preserve it as a vehicle for justice.





Author	Callum McNeill-Keay
University	Nottingham Trent University
Title	'Critical analysis of the use of Political Violence and Terrorism by the IRA in Ireland 1916-1923'

This paper is designed to address the prevalent issue of the impact of political violence and Terrorism that was created by the Irish Republican Army (IRA) which allows for the identify the centrality of the role of rhetoric in the study of Political Violence and Terrorism. The study will be the role that was played by rhetoric in the case of the IRA with their historical experiences and hostile interactions which flows parallel to the motivations of concrete interests. With the arrival of "The IRA" and its affiliates had to legitimise their new existence and which have utilised the maintenance of guerrilla activity to achieve this. However, they have also produced for the justification of their tactics and strategies. Therefore, this paper will focus on the distrust thought that has been introduced by "constitutional nationalism" of Sinn Féin.

The analysis found that the actions of the group had a dual strategy, thus by building on the work of Fitzpatrick (2012) and Morrison (2013), the principal way in which the group aimed to do this was by proposing their possession of an historic mandate. The central focus of the research is underpinned by a continued emphasis on the distrust narrative that has been introduced by the question of Terrorism and Political violence. Though the analysis of these acts of violence develops a superior understanding of the future direction of the group. Prescriptive capabilities are also enhanced as the research gives insight into the development of any future direction of the group.

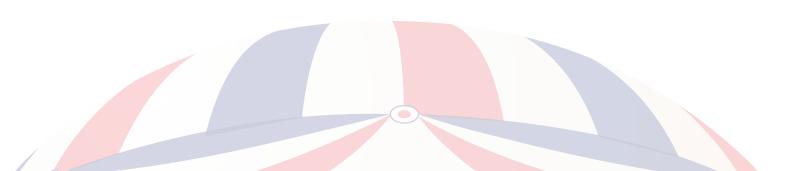




Author	Francesca McPeanne and Dr Holly Joseph
University	University of Reading
Title	Are children who speak English as an additional language better at learning new words they encounter in text?
Recent research has revealed a possible bilingual advantage in word learning meaning that children who speak	

Recent research has revealed a possible bilingual advantage in word learning, meaning that children who speak English as an additional language (EAL children) may have superior word learning skills compared to their monolingual peers, in terms of the number of exposures needed for word learning to occur. It could be this skill that is driving EAL children's accelerated progress at school.

This research project explored the controversial 'bilingual advantage' in word learning through finding out whether EAL children learn words better and whether they also learnt words more efficiently. Eye tracking technology was used to monitor children's eye movements and reading times. Two groups of children (one EAL and one First Language English/FLE) aged 9-11 read 84 sentences containing six target words over two days. This aimed to provide a sensitive and dynamic measure of incidental word learning as it occurs. Children's word learning was then measured using three offline post-tests: a spelling test, a cloze task and a plausibility task. For the spelling test, children were asked to spell the six target words, the close task required them to place the target words into gaps in sentences, and the plausibility task required them to decide whether a range of sentences containing the target words made sense.







Author	Carl Meggs
University	Teesside University
Title	Composite revolution; Can digital layup techniques revolutionise the transport industry?

Since the dawn of digital product design, CAD (Computer Aided Design) packages have paved the way for ever cheaper, more efficient, more aesthetic and better performing products. In the recent boom of the composite industry this statement is more relevant than ever. Within the transport industry composites have become synonymous with performance but their high production cost leaves their uses reserved for the cutting edge machines of today.

Utilising CAD design in the manufacture process can vastly reduce costs, predict the quality of the product and push to make composites economically viable enough to replace traditional materials.

This research was conducted as part of a global drive to make composites accessible. It utilises Siemens PLM's composite design simulator, FIBERSIM, in order to explore the applications and benefits of digital design in the transport sector. Improved levels of efficiency in minimising the cost of raw materials were observed, and a previously unseen level of flexibility in fine tuning and predicting a product's mechanical properties using fibre orientation.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Sonja Meiser, Alexander Trende, Gerrit Hilgen and Jutta Kretzberg
University	Carl von Ossietzky University Oldenburg/Mewcastle University
Title	Sensory processing in the medicinal leech

Understanding the human brain is one of science's and society's greatest challenges. General strategies for producing behaviors are expected to be found in all organisms with a central nervous system. The medicinal leech behaviorally discriminates locations of tactile stimuli as precisely as the human fingertip. Therefore, we use this relatively simple organism with around 10,000 neurons in total, to analyze the neuronal basis of the resulting behavioral pattern.

Voltage-sensitive-dye imaging allows us to measure the neuronal activity of around 100 neurons simultaneously over a short period during tactile stimulation. In some of the cells stimulation triggers activity changes, leading to different network states. Cells, which are found to be active during these experiments were investigated further via intracellular recordings and cell staining, showing the physiological and morphology characteristics of these cells. Combinations of experimental approaches reveal information about the connectivity within the neuronal network.

Various data analysis techniques complement the experimental work to determine the network topology. The type of each cells' response is classified using statistical learning methods. Additionally, the activity onset of each cell is determined using change point analysis giving first insights into experimentally evoked network state. These results will potentially lead to the identification of homologous cells which can be found consistently across experiments and preparations.

This research will advance the understanding of how tactile information is processed in a nervous system and how a network can produce specific behaviors.





Author	Carlota Mendez
University	Bournemouth University
Title	Main strategies tendencies in Coca-Cola's advertisements

The aim of this abstract is to discover how Coca-Cola's advertisements promote and maintain Coca-Cola as a leading brand in the drinks industry.

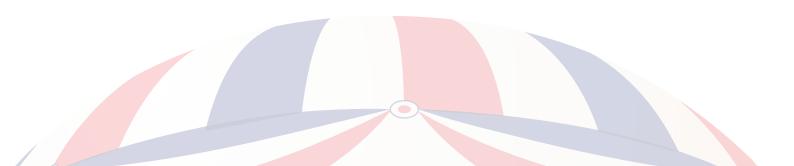
Coca-Cola is a company that has gone from a drink "on sale for five cents a glass" in 1886, Atlanta (USA) (Staff 2016a), to be, at present, one of the worldwide leading brands in the soft drink market.

By reviewing its history and different campaigns, this research project observes the characteristics that, when applied, can transform any ad into a 'Coca-Cola' ad, even when the physical product is missing from the frame. Following the same structure as other Coca-Cola ads, an ad for Coca-Cola (Figure 1) was created - choosing an ordinary activity done among friends, family or colleagues (toasting) creates associations with the viewer's memories and the product; the illusion of being involved in the moment (photograph's point of view). Finally, adding a warm colour filter (orange) to create a friendlier and welcoming image of Coca-Cola.

The brand image (Figure 1: the new logo) brings the viewers' attention towards the brand's icon and, with visual points (logo, red shirt and strawberries), through the whole image.

Keeping in mind, Coca-Cola's actual trends includes: ad's format suitable for a range of media; online sampling and technological innovations (such as Facebook's advertising tools) for a quick share of promotional content.

Te project concludes that Coca-Cola makes it easier for consumers to recall and associate special times with the brand's image; successfully creating a strong emotional connection between Coca-Cola and all consumers.







Author	Martina Mercinell
University	Bournemouth University
Title	Fallen Comrades? Anthropological Analysis of Human Remains from the Siege of Turin, 1706

In 1706, during the War of the Spanish Succession, the city of Turin was besieged by the French army. After four months of furious fighting in which 16,000 soldiers lost their lives, the city was freed in one of the most important battles in Italian history.

Despite the huge amount of literature available on the subject, little research has been done from an anthropological point of view, whilst documentary sources regarding the siege suffer from the perennial problems inherent to written evidence of bias and incompleteness.

The purpose of the current study was to fill this gap by conducting an anthropological study upon twenty-two skeletonised individuals from that period, excavated during the construction of an underground car park in 2004, in order to understand their role during the siege. The remains were analysed macroscopically to estimate their biological profiles, patterns of pathology and the presence of traumatic injuries that may suggest a context of violence around the time of their deaths.

The prevalence of young-adult male individuals, the presence of communal burials and perimortem traumatic injuries, the hurried inhumations and the absence of chronic diseases which are incompatible with military service are all consistent with the hypothesis that these individuals were soldiers. However, it is uncertain if they were professional military and the young age of certain individuals suggests the opposite.

The current investigation opens up a new line of debate by providing new information regarding these events derived from the most direct source of evidence available: the remains of those who actually took part.





Author	Natalja Mihhailova
University	Plymouth University
Title	Attracting youths to destinations with mobile technology

With growing demand for mobile technology and the emergence of generation C – connected generation – Destination Management Organisations (DMOs) have begun adopting mobile technology in their marketing endeavour. Visitors are no longer interested in meaninglessly walking around the destinations or attractions and simply looking at objects. They are interested in interactions that will provide them with an augmented experience.

Mobile technology is becoming a facilitator of a trip to a destination, a trigger to experience new encounters. Being mobile and portable, mobile technology and mobile 'apps' offer variety of content from simple texts and images to interactive content.

As top smartphone users have been identified as young people, this research aims to examine how tourism destinations in the UK can attract young visitors by using mobile technology applications. It will also seek to understand young peoples' use of mobile technology while visiting tourism destinations in the UK. A questionnaire will be administered with a target sample size of 500 respondents aged 18 to 24 in order to find out if young people will be motivated to visit places that offer such experience and to find out their opinions. The questionnaire will help to confirm and support the main aim of the research – finding out how DMOs can attract young people. DMOs will benefit from attracting more young people as a new market of customers, ensuring increased customer demand, to obtain feedback and many more.





Author	Cathryn Milligan and Abbie Ball
University	Plymouth University
Title	Are individuals good at judging when to stop learning new information?

In a complex and sometimes overwhelming world that is full of constantly changing information, people are often exposed to more information than they are able to remember. This is broadly referred to as "information overload" and is a phenomenon that is shown to affect the way that people decide to learn new information. Findings by Murayama et al, (2016), show that people commonly make the decision to stop the intake of new information, ironically, to the detriment of their overall memory recall performance.

The current study expands on this idea and examines the role that metamemory plays in utilising stopping strategies. Based on a sample made up of 71 undergraduate students, a computer-based list-learning task and the MIAr were used to test recall and metamemory ability. The aim of the data analysis is to see if metamemory score predicts if and when participants stop. In addition to this, the extent that recall is affected by stopping position will be discussed. By discovering more about detrimental practices in learning and the factors that account for variations in the strategies that people use to learn, we can help to improve strategies of learning via interventions such as metacognitive training. In addition to this, we can also learn more about the potential reasons why some people do better in tests of memory than others.





Author	Lloyd Milner
University	Queen Mary University of London
Title	A Palaeotemperature Reconstruction of a Marine Isotope 11 Site

Climate change is a normal part of Earth's history, but assessing current and future global warming presents particular challenges due to it being the first time human activity has had a significant influence on climate. The Pleistocene Marine Isotope Stage (MIS) 11 (approximately 400,000 years ago) is considered a good natural climate analogue for the current warm period; the present study focuses on a record of this age at Marks Tey clay pit in Essex, England, where exposed lake sediments offer the potential for a detailed study of a climatic transition from a warm climate to a cold one. Fossilised organisms with living present-day relatives can be used to reconstruct past temperatures. In this study, small bivalved crustaceans called ostracods were used. Rich ostracod assemblages have been obtained from samples of the lake sediments, in which the co-existence of juveniles and adults indicates that they are in situ (i.e. not reworked from older deposits).

The morphological features on the calcified shells were used to identify the species, subsequently facilitating accurate palaeotemperature reconstruction of freshwater lake conditions using the Mutual Ostracod Temperature Range method. Preliminary results suggest colder winter temperatures than present day due to the occurrence of the extinct Limnocythere falcata in three assemblages. This species is considered indicative of a cold climate, its youngest record (from the Late Holocene) being from the Siberian Arctic. The highest sample has also provided many taxa suggesting that the Pleistocene lake may have been larger than originally thought.





Author	Sonalben Mistry
University	University of Leeds
Title	What role does a students' background play in their journey to study medicine?

This research aims to explore the role a students' background plays in their journey to study medicine. A students' background refers to a range of factors such as family background, socioeconomic status, ethnicity and educational context. Various governmental reports reveal that medicine as a profession is becoming increasingly cut off to individuals from under-privileged backgrounds; such as those from lower socioeconomic backgrounds and ethnic minorities. Research into widening participation has focused on cultivating aspirations, offering guidance and supporting students from diverse backgrounds to apply. However, little is known about how successful they are and who for.

This study employs a recruitment strategy enabling us to hear from first year medical students who meet one or more of the University of Leeds widening participation criteria, broadening the scope of experiences heard. Data collected through 8-12 semi-structured interviews and analysed using framework analysis were chosen to provide systematic summaries of data and to derive explanations from common themes. Key findings will be presented in terms of the difficulties as well as support students encounter prior to entering medicine and how outreach activities help students aspiring to study medicine. The aim is to provide insight into students' experiences of applying to medicine and how their background plays a role in this journey. The hope is to apply findings to refine current widening participation activities for students from under-privileged backgrounds. This is pertinent as the British Medical Association state the medical workforce should be closely representative of the community it serves.





Author	Ana Mojasevic
University	Southampton Solent University
Title	Exploring the relationship between attachment styles, trauma and well-being; potential moderation effects of fear of the unknown

Students' transition to university has been associated with a decrease in well-being, including significant symptoms of anxiety and depression (Adlaf et al., 2001). Simultaneously, it has been suggested that both childhood and adult attachment insecurity plays a vital role in the development of anxiety (Jakobsen et al., 2012) and depressive symptoms in adulthood (Monti & Rudolph, 2014). Furthermore, Adverse Childhood Experience (ACE, Steele et al., 2016) and Fear of the Unknown (FOU, Mahoney & McEvoy, 2012) have a negative effect on individuals' well-being (in this study measured by depression and anxiety). The current study aims at investigating the relationship between attachment status and symptomatology and specifically, if factors such as ACE and FOU have a moderating effect on the relationship between attachment insecurity and level of symptomatology.

Approximately 80 participants (62 at the moment) will complete an online survey, which has been approved by the Psychological Ethics Committee. The survey includes the 'Experience in Close Relationships-Revised Questionnaire' (ECR-R), 'Adverse Childhood Experience Questionnaire' (ACE), the 'Intolerance of Uncertainty Scale-Short Version' (IUS-12) and the 'Depression, Anxiety and Stress Scale' (DASS-21). It has been hypothesised that: 1. Individuals with higher anxious or avoidant attachment will report higher levels of depression and anxiety; 2. Participants who report more ACEs will report higher levels of depression and anxiety than those who report low levels of ACEs; 3. FOU will be predictive factor of higher levels of self-reported levels of depression, anxiety. The study may contribute to the growing understanding of the role of FOU as a focus for intervention in treating anxiety and depression.





Author	Hannah Moore
University	Blackpool and The Fylde College
Title	To What Extent Is Their A Correlation Between Psychopathy Traits & Strong Leadership in a Project Based Environment?
What began as a sole focus on psychopaths being directly linked to a lifestyle of crime and retribution, eventually branched out to many being recognized as well respected members of society. Corporate psychopaths are an example of this and the study of them in recent years has helped organizations to understand the traits they exhibit. Whilst considerable research has been devoted to the negative aspects of corporate psychopathy, rather less attention	

has been paid to the potential advantages they can bring to a business. As such, this study's aim was to identify the presence of psychopathic traits and/or leadership traits and investigate a possible relationship between them and their perceived leadership competence from both the project leader perspective and the team member's perspective. Knowledge of this has significant importance as it will help create an understanding of the traits possessed by

employees and help recognize where on a psychopathic spectrum a person ceases to be of benefit to the organisation and therefore becomes a dangerous and disruptive employee. This study adopted a pragmatic perspective utilizing a mixed method approach through the use of a questionnaire which will consist of both Likert scale and open ended questions and was analysed through thematic analysis and comparative analysis data. Although the study has not yet concluded it initially shows there to be an overlap on the psychopathic spectrum where some leaders possess a mixture of psychopathic traits and leadership traits suggesting that a correlation is present.





Author	Louis Moore and Ann Luce
University	Bournemouth University
Title	What is the role of social media in suicide prevention?

From researching the role social media plays in suicide prevention it is apparent there is insufficient research. The World Health Organisation (2016) reports that suicide is the third highest killer of both males and females internationally between the ages 15-44. Furthermore, Kemp (2016) reports that there was a 10% increase on active social media users globally in 2016 with 2.3 billion people now engaging on the online platform. With these statistics it is evident there is the opportunity to implement social media as a means to prevent suicide however currently scholars are uncertain of how to avoid suicide from happening due to the continuous suicide rates since records began (World Health Organisation).

Currently, studies have found that online influencers such as Facebook and Google are working on suicide prevention techniques, however neither want to involve themselves within the prevention business (Eggertson 2015). Scholars are undecided on whether social media sites have a positive or negative affect on individuals considering suicide. Currently there is a gap in research giving a definitive answer on the role social media plays in suicide prevention.

This research will use qualitative interview methods in order to gain an insight from professionals in suicidology. Furthermore it is important to gain a wider understanding from experts in social media plus those affected by suicide. This pilot study aims to highlight whether suicide prevention and social media can combine to have a positive impact on society.





Author	Georgia Moores
University	Bournemouth University
Title	An examination into the socially constructed dominant ideologies presented in media and PR

This paper explores the theory of social constructionism and its effects on society, when used by the media and professions like public relations. This looks at what it means to be a person and where the experiences that construct our personalities come from.

It draws on scholars, like Vivian Burr (2015) who analyses the complex elements that make up a person and how someone's actions and behaviour are all socially constructed. Additionally this engages with Marxist and Black Feminist perspectives in an attempt to explore and understand how many explanations into the constructions of the self, shown through media and PR, subscribe to the view of society constructing an ideal that may impact on what we see and what is perceived as the norm.

Through the use of examples, this paper identifies how powerful public relations is in creating social constructions when it uses the media effectively. It highlights the difficulties that may occur when trying to form new constructions, therefore examines the potency of the various levels and complexities of ideologies and discourses that have been embedded within society for so long.





Author	Callum Morris
University	University of Chester
Title	Food Security in rural Cambodia; the case study of Prey Khla

Food security is a vital topic to research; not only is food a basic human right, food security is an important issue for communities in Cambodia who wish to achieve sustainable development and poverty reduction. The research aims to determine the food security situation in Prey Khla village, Prey Veng, Cambodia. Prey Veng is the breadbasket of Cambodia and boasts the largest area devoted to rice farming in the country (accounting for 10% of the countries surplus rice); yet it is still among the highest food insecure regions in Cambodia. The research investigates how and to what extent households are short of food, what the primary factors affecting food security are, and what coping strategies are in place.

The study found that food insecurity exists throughout the village and is concentrated mainly amongst the poor. Responses to food shortages have proven to be ineffective, with most people simply reducing their consumption to cope; while the government only offers support in times of natural disasters (such as flooding and droughts). The results suggest food insecurity could be reduced by the advancement of agricultural practices; allowing for more rice planting seasons to take place, in turn improving local employment and the rural economy. Additionally, the government need to distinguish between chronic and transitory food insecurity to support the village more effectively in future programmes.





Author	Molly Morris and Nasreen Majid
University	University of Reading
Title	Understanding the professional identities of mathematics specialist in British primary schools.

## Research methods:

Key trends were established from existing literature and were used to explore how the mathematics specialists negotiate and develop their professional identities in a busy and challenging work space. The research was conducted by inviting the past students to an interview at the University of Reading, with these interviews being a key part in our data collection. Students who were unable to attend were interviewed using Skype. The interviews were recorded on a voice recorder and later turned into transcripts. The conversion into transcripts allowed me to identify what key trends emerged from the interviews and helped me to analyze the findings before comparing them to the existing literature. We then used different codes to identify the similarities and differences between the different data sets to help us identify the professional identities of mathematics specialists in Primary schools. This qualitative approach allowed us to also measure the knowledge and skillset of these mathematics specialist trainee teachers.

Preliminarily results:

- The results of the research suggested that
- Students have a sound pedagogical understanding of how to teach mathematics
- Students identify themselves as mathematicians as well as teachers
- Students were aware of the different approaches to the teaching of mathematics globally, showcasing a greater educational understanding of different ways of teaching mathematics around the world. This was apparent as 7 out of the 8 students interviewed stated that 'International Education' was their favourite module.





Author	Natalie Morris
University	Bournemouth University
Title	Fitbit Case Study: Strategic Marketing Plan

#### Purpose:

This paper relates to an industry case study and its purpose is to propose, with justification, a strategic marketing plan for the global leader, Fitbit, to sustain their competitive advantage in the highly attractive fitness tracking wearables industry.

## Approach:

An extensive and thorough analysis was undertaken and drew from the facts presented in the case. These were then synthesised through the application of a repertoire of appropriate frameworks and models, underpinned by pertinent academic theory. Fitbit's strategic capabilities were highlighted and led to the formulation of an integrated marketing plan that operationalised the key strategic options presented.

#### Findings:

Fitbit functions within the technology-led wearables industry, and although, they enjoyed an impressive journey into a strong leadership position, the constant and relentlessly evolving cycle of new and obsolete now demands that they defend this position by developing new competences. Despite the volume of organisations competing in this space, there is ample opportunity for each to differentiate their offering by appealing to a unique target audience, making it attractive and profitable for those who meet the threshold capability requirements. A dynamic synergy of Fitbit's existing capabilities keeps them "in the blue" and at the top. High barriers to new entry, relatively low buyer power and low supplier power, balance the threat of substitution. Several opportunities in the market are discussed and a value innovation approach is proposed to fulfill a differentiation strategy that encompasses servitisation tactics.





Author	Peter Moughton
University	University of Leeds
Title	Protein engineering to prevent the aggregation of biopharmaceuticals

Biopharmaceuticals are an increasingly popular form of medical therapeutic, with their market share in the pharmaceutical industry steadily growing over the past decade. A key reason for this increased usage is in their ability to treat diseases not targetable through small molecule methods, including cancer and bowel disease. Multiple candidate biopharmaceuticals are presently entering clinical trials with, for example, a recent (2017) novel peptide being developed to treat celiac disease.

The range of therapeutic targets are still to be realised, and is critical in the movement of the pharmaceutical industry towards the phase of personalised medicine. However, a significant problem with biopharmaceuticals is in their intrinsic ability to self-associate and aggregate.

In this literature review we firstly highlight the intrinsic nature of biopharmaceutical aggregation and the pathways by which a biopharmaceutical will aggregate. Secondly, we highlight methods employed to reduce the ability of biopharmaceuticals to aggregate with specific reference to structural changes in a proteins primary sequence, utilising aggregation resistant proteins found in nature. Finally, we explore the implications of biopharmaceutical protein engineering on its ability to target specific disease causing sites.

This work highlights aggregation as one of the major problems ailing the development of biopharmaceuticals and considers the development of protein engineering techniques to improve their solubility.





Author	Ameera Mubarak
University	Zayed University
Title	Social demographic, social cognitive processes and their relationship with marital satisfaction among Emirati women

Humans have a natural tendency to compare themselves to others. Such comparisons however may have negative psychological consequences in terms of mental health and possibly marital relationships (Festinger, 1954). Demographic variables may also contribute to marital satisfaction levels. The current research examines the relationship between social comparison and marital satisfaction amongst married Emirati women. The study hypotheses that individuals who have a greater tendency to engage in social comparison are more likely to experience higher levels of marital dissatisfaction.

In this study, participants completed The Iowa-Netherlands Comparison Orientation Scale (INCOM), the Emirate Marital Satisfaction Scale (EMSS) and a demographic questionnaire. Seventy-three married Emirati women aged between 18 and 50 years of age participated in the research. The sample comprised two different marriages durations; one to seven years and eight and above years. Hypothesized relations were investigated using inferential and correlation analyses.

The findings showed that social comparison, as a process, was not statistically related to marital satisfaction. However analyses demonstrated a significant correlation between marriage type and marital satisfaction. Specifically, women who had reported having a personal choice in respect of their marriage reported higher levels of marital satisfaction. Implications for research and practice are provided.



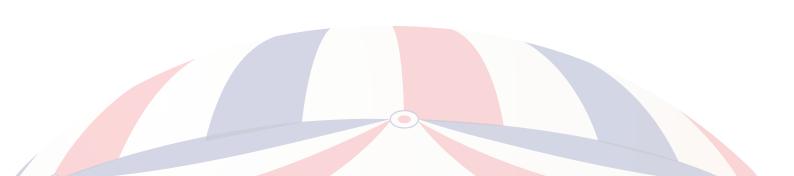


Author	Maryam Mubarak
University	Zayed University
Title	Emirati Female Student's Future Aspirations: A qualitative approach to exploring attitudes, goals, challenges, and cultural influences

The United Arab Emirates government has taken great measures to empower the youth population in recent years. These efforts are evident in the recent establishment of a youth council that grants the youth recognition and a platform to discuss the best practices, important topics and concerns related to the youth and their aspirations.

Inspired by the Youth Council initiative, this current study was conducted to gain a greater insight into students' future plans, goals, and aspirations. To date, and to our knowledge, there hasn't been any sufficient research that explores Emirati youth aspirations. Therefore, this study is conducted to allow for further culture-focused research on Emirati youth career and personal pursuits. In-depth qualitative data was collected from 15 undergraduate female students from various majors (age range: 19-25) using semi-structured interviews that explored individual ambitions and other related factors that include cultural influences, challenges, and support factors that helped potentially shape their aspirations.

This study was granted an ethical approval by the university's Research Office. The data was thematically analyzed in order to identify key themes and participant excerpts from narratives will be presented to support each theme. The excerpts will be presented under the following themes: future plans, goals, and aspirations, factors that serve as obstacles to students' aspirations, sources of support, influences from social connections. The key themes and their corresponding excerpts will be further discussed at the time of the conference.



## **BCUR17** 25-26 April 2017 Bournemouth University



Author	Alix Murphy
University	Manchester Metropolitan University
Title	A research project investigating the effects of fostering on the biological children in the family

This paper will present the findings of a study exploring the experiences and feelings of being a biological child in a fostering household. Research suggests that the relationship between the foster child and the biological child is an important factor for a placement to be successful. Often unsuccessful placements can leave the biological children blaming themselves for the break down of the placement. Research also suggests that a common reason for foster carers to resign is the impact on their own children. Therefore, understanding the impact of fostering on biological children in the family is important.

In this study there was a sample of 3 participants who were all siblings who had grown up from an early age in a fostering household. Semi-structure interviews were employed to allow for an exploration of the experiences and feelings of the participants. Several themes within the interviews were: age related with sub themes of emotions and experiences, the impact on the relationship between the biological children, their biological parents and foster children and a third theme of positive and negative outcomes of foster caring. Preliminary findings suggest that fostering can have an emotional effect on the biological children of a fostering family. However, the analysis also demonstrated positive aspects of foster families, understanding the impact on biological children may help to encourage families to foster and also promote the development of support for biological children leading to fewer placement breakdowns.





Author	Sidd Muzumdar, lesha Mistry, Bright Dube, Sarah Kingsbury and Philip Conaghan
University	University of Leeds
Title	The Effect of Meniscectomy on Joint Space Narrowing in Tibiofemoral Osteoarthritis

Knee osteoarthritis is disabling condition affecting 300 million worldwide. Meniscal injury is common and definitive treatment-meniscectomy-involves meniscus removal. As the meniscus is vital to knee function, the study hypothesizes that meniscectomy increases osteoarthritis progression. This study determines the relationship between meniscectomy and joint space narrowing (JSN), a structural outcome of osteoarthritis. To investigate this, 3469 patients from the National Institute of Health's Osteoarthritis Initiative were analysed. JSN was analysed at baseline, 48-months and 96-months. The difference in JSN, in those undergoing meniscectomy versus those without, and those undergoing meniscectomy explained 4% variance in JSN changes between baseline and 48-months (p=0.243). Logistic regression revealed an odds ratio of 1.83 (1.17-2.83) (p=0.007) after undergoing meniscectomy group showed greater JSN than non-meniscectomy group (p=0.01). Those who had multiple meniscectomy increases OA progression in the short term (48-months) and long term (96-months). The proposed mechanism for this is that meniscus removal increases contact stress across the tibiofemoral joint, leaving the underlying cartilage vulnerable to damage. Consequently, preserving the meniscal rim is key to obtaining long-term outcomes.





Author	Brooke Nelms and Bethany Davis
University	Bournemouth University
Title	To buy or not to buy: Do online adverts influence purchase intention?

Website advertising is currently a 'hot' topic in marketing due to the growing number of people shopping online. By 2019 it is predicted that online advertising expenditure will overtake TV as the largest single advertising category. With so much spent on online advertising, it is crucial that marketers fully understand the effectiveness of online advertising techniques, so that they may optimise the use of marketing budgets.

The purpose of this study was to examine two key aspects of website advertising:-

- (1) the impact of buzzwords included in on-line advertising
- (2) the impact of the positional placement of adverts on the webpage.

Forty female undergraduates were asked to view a series of websites on which the buzzwords and placement of the adverts on the page were systematically varied. All websites were created to appear as 'news sites' and participants were asked to read the content of articles carefully and subsequently asked about the content of the news articles. In this way, participants were unaware that website advertising content was being manipulated (see, for example, Shapiro, Maccinis & Heckler, 1997; Manchanda, Dubé, Goh & Chintagunta, 2006, for similar procedures). It was only after all web pages had been viewed that participants were asked about how much they would pay for a series of products, some of which had been advertised previously. The role of buzzwords and advert placement on purchasing behaviour is discussed along with the implications for how companies can best utilise their marketing budgets.





Author	Shu Ng, David Wotherspoon and Oliver Vickers
University	University of Leeds
Title	Innovative methodology of the physio-chemical, biological and mechanical properties of novel surgical mesh for soft tissue repair; a multi-disciplinary approach

Surgical meshes are used extensively in medicine and have remained technologically similar since their invention. Recently there has been considerable research into improving surgical meshes with a focus on enhancing their antibacterial properties. Novel surgical meshes have been impregnated with many materials including metallic nanoparticles, antibiotics etc. to suit specific clinical applications. The vast array of impregnations requires different methods of testing to ensure safety in the human body. There are currently no universal approaches for testing key aspects of novel surgical meshes including: cytotoxicity, mechanical and antimicrobial properties. A multidisciplinary approach of testing novel surgical meshes was devised to investigate performance in these three crucial areas.

Cytotoxicity was assessed by placing the surgical mesh in both direct and indirect contact with mouse fibroblasts. Cell viability was measured by MTT tetrazolium salt colorimetric assay. Antibacterial property of the surgical mesh was assessed using a modified Kirby Bauer disk diffusion assay against E.coli, S.aureus and P.aeruginosa. Mechanical properties of surgical meshes were assessed using strain analysis to investigate maximum tensile strength and stiffness. As Implanted meshes experience both static and dynamic tensile forces, cyclic loading behaviour was also investigated.

The methodologies used in this study were useful in determining the suitability of novel antibacterial surgical meshes. When this model is applied in a context of pelvic organ prolapse, the described methodologies may provide a basis for new ratification procedures to assess new medical devices.





Author	Caroline Nicoll
University	Bournemouth University
Title	The effectiveness of cognitive dual-task training on gait in stroke survivors

#### Background:

Stroke is a leading cause of disability worldwide, commonly resulting in lingering difficulties dual-tasking, such as walking and talking. The effects of dual-task training on gait ability following stroke has been recognised. However, an optimum rehabilitation programme has yet to be established.

## Objective:

To review the literature on the effect of dual-task cognitive training on walking speed in individuals following stroke and establish an optimum training protocol.

## Methods:

A systematic search of Bournemouth University 'my search' was completed in October 2016. A modified version of the Downs and Black index was utilised to appraise the methodological quality of the included studies.

## Results:

Five studies fulfilled the inclusion criteria. All studies found improvements in gait speed post-intervention with four studies reporting statistically significant results. The type of cognitive dual-task exercise differed between studies. Three studies incorporated similar trial duration and frequency. Four studies applied the same intensity and frequency of exercise intervention. Overall, there is moderate evidence to suggest that cognitive dual-task training is effective in improving gait speed for individuals following stroke.

## Conclusions:

Cognitive dual-task training is effective for improving gait speed as an adjunct to standard rehabilitation. The results suggest that longer treatment duration may have no greater effect than a four-week program. More frequent sessions of greater intensity may enhance gait speed outcomes with younger participants achieving better outcomes. Further research should determine the long-term effects of cognitive dual-task training.





Author	Hendrik Niehaus
University	University of Hamburg
Title	The Erdos-Sós-Conjecture

A graph is an abstract network consisting of a set of vertices, which you can imagine as dots, and a set of edges, which you can imagine as lines each connecting two dots (precisely two vertices).

My research focuses on when graphs of a certain special kind, called trees, are forced to appear as substructures of other graphs. We want to know how many edges a graph can have without containing such a tree of certain size. Formally, in 1963 Paul Erdos and Vera T. Sós conjectured that for all trees T with k edges every graph G with n vertices, not containing T as a subgraph, has at most n(k-1) 2 edges.

After a short introduction and a survey of the known results for this problem, I will continue with an exposition of my own work. This includes not only new proofs for special cases of the problem, but also a reduction of the problem to a set of graphs with "somehow locally enough edges". We will have a closer look at how the proof works in the case n = k + 1 and the meaning of "somehow locally enough edges". Finally, I will discuss some interesting questions arising from my results.





Author	Kayleigh Nimmo
University	Newcastle College
Title	Social communicative inclusion for non-verbal adults on the autistic spectrum

This research investigates if mainstream social settings are inclusive for the communication needs of non-verbal adults on the autistic spectrum. The research looks at the difficulties non-verbal adults have communicating with unfamiliar people in social settings and what can be implemented to promote inclusion and independence in these situations. Research suggests that Pictoral Exchange Communication System (PECS) are the most successful form of augmentative alternative communication (AAC) for learners with Autistic Spectrum Disorders (ASD) and Intellectual Development Delay (IDD) (Ganz et al, 2014). The research looks at how technology, specifically mobile apps, might use a Pictoral Exchange Communication System (PECS) to promote inclusion in social settings for those with Autistic Spectrum Disorders.

Comprising of a quantitative and qualitative methodological approach, data will be collected through surveying 100 local businesses to ascertain current supply and demand of inclusive communication. Semi-structured interviews will also take place with three speech and language therapists and the manager of a special needs college. Preliminary findings suggest that there is currently an unmet need for alternative communication (other than spoken word) in social settings and that technological development such as an application for android or iOs could be used collaboratively by businesses and services to promote inclusion. The research has far reaching implications; to expand on this work, a uniformed and structured pictorial communication system could be implemented. A system such as this could promote inclusion and may allow more individuals from various social groups to participate in mainstream social events.





Author	Khulood O. AlFalasi
University	Zayed University
Title	The Recognition of Emotions in Presence of Partial Occlusion in Dynamic and Static Displays

Facial emotions play an important role in non-verbal communication used in everyday life. However, the effect of occlusion regarding facial recognition, as in the case of Islamic veils has not been investigated in depth. The few existing studies used static images only, which can be limited when analyzing facial expressions.

The purpose of this study is to understand emotions recognition and to analyze which emotions are better recognized in presence of occlusion/motion. Also it compares the effectiveness of static and dynamic stimuli. Twenty female Emirati participants whose ages were from 19-24 years old participated. The current research explored the recognition of basic emotions (disgust, happiness, sadness, surprise) by using four occlusion conditions (no occlusion, occlusion of mouth, occlusion of nose and mouth, occlusion of face except eyes). These displays were presented in static (photos) and dynamic (videos) stimuli/motion. 40 clips (20 dynamic, 20 static) were presented to the participants twice in different random order. Responses were designed to be forced-choice and they included the target response with other emotion alternatives. Three-Way ANOVA was used in order to analyze the effect of three independent variables (emotions, occlusion conditions, motions) on the emotions recognition.

Results showed that the brain still gets useful information from the face in the occlusion conditions and that positive/ neutral emotions such as happiness and surprise were more recognized than negative emotions such as disgust and sadness. Findings also showed that surprise is better recognized through dynamic rather than static stimuli.



## **BCUR17** 25-26 April 2017 Bournemouth University



Author	Nikenna Okonkwo, Nilesh Patel and Nicola Stoner
University	University of Reading
Title	Cancer patients' satisfaction with the satellite pharmacy services

A satellite pharmacy specialising in medications used in patients with cancer was built in the Churchill Hospital Cancer and Haematology Centre in 2015. This was developed to prevent patients having to walk 1km to the main pharmacy to get their prescriptions screened by a specialist pharmacist and receive information and counselling about their medicines. This study aimed to evaluate patient satisfaction of the satellite service and identify areas for improvement. A paper-based questionnaire was developed with patient satisfaction being assessed using a 6-point Likert scale.

The questionnaire was piloted with 10 patients, which resulted in the inclusion of "not applicable" to the scale. The final questionnaire was left at the satellite pharmacy counter for patients to complete over a 3 week period. 37 questionnaires were returned completed. All aspects of the pharmacy service were met with a 60% or above level of satisfaction. 61% of patients said they were given information about their medicine. 60% of patients felt that the satellite pharmacy was better than the main pharmacy. 94% of patients were satisfied or very satisfied with pharmacy staff behaviour. Satisfaction was lowest regarding the waiting time and waiting area (11% being very dissatisfied or dissatisfied in each case). However, this was said to still be better compared to the main pharmacy.

In general, there was good patient satisfaction with the satellite pharmacy service particularly with the pharmacy staff. However, there is room for improvement in the waiting area and times as well as information and advice given to patients.







Author	Yewande Opadiran
University	University of Leeds
Title	A feminist critique of the Africa rising narrative: Are Nigeria's women rising?

'Africa Rising', is the narrative that heralded a new era of economic growth for African nations. The continent that was once dismissed as 'hopeless' (Economist, 2000) was now deemed 'hopeful' (Economist, 2011). The injection of foreign capital-intensive investment in exchange for natural resources led to unprecedented growth in GDP of some African nations. Africa Rising has been critiqued, most notably, the slowing of GDP in response to decreased prices in the sale of petroleum in Nigeria.

My research uses a gendered lens to highlight the absence of female voices and their presence in the Africa Rising narrative. My research explores the context behind this using Nigeria as a case study. The hegemonic patriarchal structure of development has excluded women from this exclusive club of economic productivity and political representation through mechanisms such as culture, tradition and religion (Chucku, 2009). For example, Nigerian cultural beliefs dictate the sexual division of labour: women are natural homemakers and men are workforces involved in nation building through economic and political activities (Ali, 2014). I explore the contradictions between women upholding culture/tradition but still engaging in the increasing levels of education and economic/employment opportunities despite the challenges presented by the recession. Women have made immense contributions at the micro-economic level (in their homes and small businesses). I challenge whether these opportunities have led to Nigerian women's rising/empowerment. My research sheds light on the increasing importance of Nigerian women in development and evaluates what the Africa Rising narrative really means for them.





Author	Antony O'Rourke
University	Staffordshire University
Title	The effect glove material has on the transfer of friction ridge detail through contaminated examination gloves
Gloves are worn for two primary reasons: to protect us from evidence, and to protect the evidence from us. The	

Gloves are worn for two primary reasons; to protect us from evidence, and to protect the evidence from us. The research aimed to identify the affect that the material of an examination glove has on the transference of friction ridge detail or glove mark when deposited on a porous or non-porous substrate. The experiment attempted to determine if the quality of marks deposited varied between Nitrile, Vinyl, Latex and Household rubber gloves. These were worn for a set period of time, starting at 15 minutes with two ten minute intervals thereafter. At each interval, marks were deposited onto either a porous (paper) or non-porous (glass microscope slide) substrate using the Multi-Force Fingerprint Sampler to control the pressure at which the mark was deposited. The marks were then developed using a suitable technique dependant on the substrate (either aluminium powder or DFO working solution) then photographed under different light sources using the Video Spectral Comparator. Once developed, the marks were scored according to five criteria. Preliminary work has indicated that a short period of wear time and low force levels during deposition does not cause transfer of friction detail. As a result, the methodology will be altered to increase both variables. Further results will be discussed in this presentation.





Author	Amani Othman
University	Zayed University
Title	Analysing the Level of happiness of domestic workers

This research analyses the level of happiness of domestic workers, focusing on maids who live in the United Arab Emirates (UAE). This study aims to identify risk factors affecting the working and living conditions of a group of people often characterised as vulnerable, and to make recommendations on how to improve their overall level of happiness. The core reason for choosing this topic is the contradictory information about it in the UAE. Assessing the happiness level of domestic workers will shed further light on this topic. Aside from the Human Rights Watch (2014) and the World Happiness report 2015, there is very few research on this domain considering the Arabian Gulf.

The study methods were based on cross-sectional quantitative design of a social-demographic questionnaire adapted from previous studies, such as the Quality of Life Inventory, and the Oxford Happiness Questionnaire. The project is targeting 50 female participants who are currently working as maids from the age group 15-52 years, and from different nationalities (Ethiopia, Indonesia, India, Sri Lanka, Kenya, Uganda, Philippine). Snowball sampling was used to reach this group who live in different cities with in the UAE. Statistical analysis is undertaken in SPSS. It is expected that results will indicate that social life is an important factor contributing to happiness. Therefore, workers who answered that they go out 'most of the times' and 'sometimes' are happier than those who 'never' go out.





Author	Dushant Patel
University	Queen Mary University of London
Title	Let's make this together: a video game and a participatory performance
litte	Let's make this together: a video game and a participatory performance

The aim of the project will be to examine Nina Freeman's game Cibele and Jamal Harewood's performance The Privileged. Cibele is a game where the player's actions have little consequence to the narrative beyond having to click their mouse for the story to progress. The Privileged centres on instructing an audience to playfully treat Harewood like a polar bear and to care for him. This caring soon takes a violent form, at which point the individual and racial consequences of dehumanising a black man become very real. Both works ask their differing audiences to personally inhabit a role in the creation of the pieces by participating in the action.

My method of research will be to undertake a critical analysis of the two pieces through my personal experience of them. I will use this comparative analysis of my experience with both works to draw conclusions on what kind of interactions are asked for, and how the game and the performance achieve these. Claire Bishop's writing on how performance that involves its audience requires or elicits the audience to readjust their sense of self will inform my analysis. Through this, I will be able to complicate the ostensible disparity between Cibele, a video game and The Privileged, a participatory performance.

My anticipated conclusions are that despite being radically different art forms, Cibele and The Privileged both ask their audiences to enter a specific mode of engagement through the relative freedoms or restrictions they give to participants.





	a Patel, Ali Remtulla and Irundika Dias
University Aston	n University
Title The e	effect of oxidative stress on thioredoxin-1 secretion

Ageing is associated with weakening in immune function that adds to age-related diseases. Increased reactive oxygen species (ROS) production occurs with age. Thioredoxin-1 (Trx-1), a redox active protein with antioxidant activity, is induced in various cells against oxidative stress and is secreted extracellularly. The aim of this study is to develop an enzyme linked immune sorbent assay (ELISA) to measure Trx-1 in cellular and extracellular systems.

Jurkat cell cultures were maintained in supplemented RPMI media in 5% CO2. The level of Trx was measured by direct and competition ELISA's. Indirect ELISA; plates were coated with recombinant Trx ( $0.5\hat{A}\mu g/ml$ ) to generate standard curve and incubated for 1 hour followed by Anti-Trx and secondary antibody incubations. Competitive ELISA; plates were pre-coated with recombinant Trx ( $0.2\hat{A}\mu g/ml$ ) and blocked overnight. Recombinant Trx ( $1.25\hat{A}\mu g/ml$ ) was added to generate standard curve along with anti-Trx antibody for 2 hours followed by secondary antibody incubation. Both assays were developed by Sigma Fast $\hat{A}^{\otimes}$  solution and read the absorbance at 490nm.

With the competitive ELISA, a higher background signal was observed. This resulted higher Trx levels (~ 300ng/ml) compared to range (0.8-87ng/ml) reported in literature. An adopted method was developed using a buffer containing Caesin to remove background interference. 3 plasma samples were tested in new method and Trx levels were 0.070ng/ml, 0.039ng/ml and 0.053ng/ml

Our study investigated the optimisation of a Trx-ELISA in determining concentrations in plasma samples, serum-free cell supernatants. We will investigate change of Trx-1 secretion under oxidative stress.





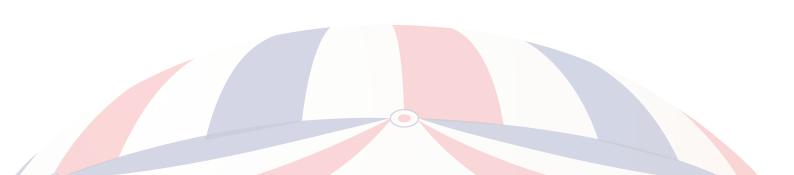
Author	Priyesh Patel
University	University of Warwick
Title	Can we die well? A critical evaluation of Seneca's philosophy and its everyday application

Philosophers of the Hellenistic period 'practiced philosophy not as a detached intellectual discipline, but as a worldly art of grappling with issues of daily and urgent human significance: the fear of death, love and sexuality, anger and aggression' (Nussbaum 1996).

This paper will explore, through the letters of Stoic philosopher Lucius Seneca and other secondary literature, the following question: Can we die well?

I present a critical evaluation of Seneca's conceptions of dying well and the good life. Seneca believed that the fear of death is the greatest slavery, which can be unlearnt through the pursuit of philosophy. One must mentally 'rehearse for death' and aim to depart from life like a sated guest from a feast. What are those thought-processes that will allow one to gain ultimate freedom? What is the lifestyle which will help one to meet death with, what Seneca calls, 'calm cheerfulness'? How practical, useful, and effective are these ideals when applied into everyday life? These are the questions I hope to answer, and whether philosophy can be beneficial in our grapple with central issues such as death.

I will share my findings from a group of volunteers who practiced Seneca's spiritual exercises for a period of two weeks. I documented the short and long-term observations of applying Seneca's ideas into daily life, with groundbreaking results which will inspire further research in this field.





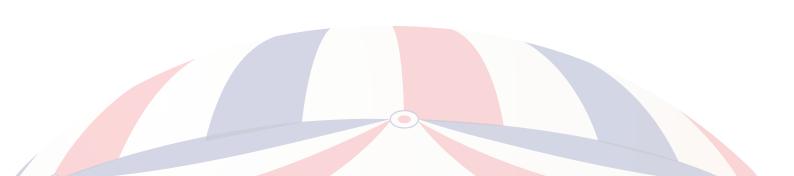


Author	Puja-Arti Patel
University	Oxford University
Title	Conversing in a common language of faith: Fostering inter-religious dialogue through re-examinations

Globalisation has forged a world of bewildering religious diversity. Various religious traditions necessarily find themselves occupying a common space, yet they seem to lack the vocabulary, framework and tools by which to communicate with one another. The emerging field of comparative theology, fostered by scholars such as Francis X. Clooney, SJ of Harvard Divinity School, can be helpful for nurturing well-informed dialogue between religious traditions. While acknowledging that difference is indeed the reality (Eck, 2006), such dialogue would help dispel misinformation and misunderstanding about religious traditions, benefitting the public sphere.

In this paper, I aim to present an example of doing comparative theology in hopes of building a mutually intelligible language of faith. I will do this by bringing into conversation the works of Wolfhart Pannenberg and Swami Paramtattvadas, two systematic theologians of Christian and Hindu persuasion, respectively. A. Bagus Laksana (2010) notes that divine revelation is a space of the human struggle to understand God better. I shall therefore specifically examine the concept of divine revelation since a common space might encourage a common language. This dialogue will be developed by 're-reading'i.e. re-examining Paramtattvadas b'Introduction to Swaminarayan Hindu Theology (forthcoming) after reading Pannenberg's Systematic Theology (1988-1994).

I argue that in order to generate effective inter-religious dialogue and converse in a mutually intelligible language, each tradition has to find ways of adapting to the vocabulary, framework and tools of current theological discourse where Judeo-Christian theology is popular.







Author	Camelia-Sanda Perieanu, Supervisor: Sharon McGuire, Senior Lecturer in HRM at Coventry University
University	Coventry University
Title	An investigation into the effects of total absence management on a firm's productivity as a way of driving competitive advantage

According to the World Tourism Organisation (UNWTO) the global international tourist arrivals are expected to rise annually by 3.3%, thus providing airlines with continued growth. This increase will ultimately result in a greater carbon footprint, for which aviation contributes 2% of all globally manmade emissions.

The airline industry is a prime target for criticism when it comes to the Climate Change and Global Warming agenda. To make airlines more sustainable, investment is needed in new technologies. The costs of these investments mean that the airline passengers will inevitably have to pay more. The balancing act between sustainable air travel and having to charge higher prices presents a dilemma, which calls for the current study.

The study will use an online survey aiming for 300 responses. The survey data collected will be supplemented with 50 semi-structured interviews at an airport in the North West of England, between December 2016 and February 2017.

The study aims to clarify the balancing act of making the airline industry sustainable. The contributions to knowledge will help to position the airline sustainability agenda and the economic reality of needing to meet the costs associated with the necessary investment into sustainable technology.

It is expected that the study will show continued growth in consumer awareness concerning airline environmental impacts. In addition, a limited willingness to absorb associated costs, dependent upon percentage increase, and highlighting a preferred method such as offsetting.



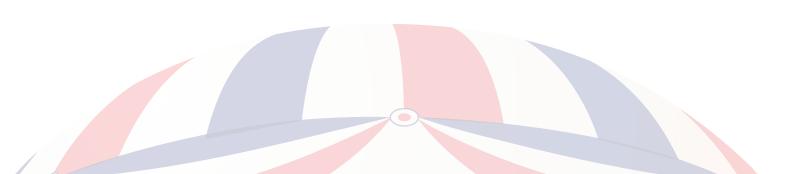


Author	Ben Perry
University	Blackpool and The Fylde College
Title	Feedback as a tool for leadership development and its link to organisational culture in a project based organisation

In order to adapt to an ever changing environment and increased complexity leadership itself must be constantly in development. It has often been cited that the feedback of peers and subordinates is vital to leadership development (Day, Fleenor, Atwater, Sturm, & McKee, 2014; Sense, 2009).

The issue with peer or subordinate feedback is that it is difficult to gauge how open and honest it actually is. Often, only providing affirmation to leaders is potentially a bigger hindrance to their development than a complete lack of feedback. Such passive attitudes towards feedback and its effects can be linked to a cultural deficit within organisations. With leadership having been outlined as one of the primary drivers of organisational culture (Schein, 1992), there is a question as to whether there is thus an iterative relationship where poor leadership is perpetuated.

This research uses a mixed method approach of both survey and interview to capture both the corporate culture and feedback perspective of both leaders and followers. Analysis and triangulation of the data shows the existence of an iterative process whereby leaders can influence their follower's tendency to provide open and honest feedback through cultural direction and moulding. Finally, evaluating the impact feedback truly has upon a leader's development.







Author	Petros Petrikkos
University	Queen Mary University of London
Title	How has apartheid been present in the Israeli-Palestinian and Cypriot conflicts from 1960 to 2016?

In 1961, the South African Prime Minister at the UN implied that Israel was exercising apartheid policies against the Palestinian population. With the end of the Six-Day war, the removal of the Arabs from Israeli territory was encouraged, otherwise there would be 'apartheid'consequences: racial violence against the Arabs (Molavi: 2013). At the same time, Cyprus in 1960 acquired formal independence from colonial Britain, yet within three years, the country found itself in turmoil. With the resignation of the Vice-President and the Turkish-Cypriot ministers from government, there was growing tension, discrimination, and often violent conflict between the Greek-speakers and the Turkishspeakers.

In this research project, I aim at demonstrating the presence of apartheid through a comparative case study account in Cyprus and Israel-Palestine from 1960 to 2016. Such an account will identify key similarities and differences: both regions have experienced racial segregation: Israel has discriminatory policies against Arabs; in divided Cyprus, despite the freedom of movement within the island, there are ongoing attacks against the Turkish-speakers, who are also Cypriot citizens.

Through secondary sources and surveys, I intend to present data to further prove that there is apartheid in both case studies, going beyond mere discrimination, emphasising the presence of racial segregation rooted in identity politics. Through this scope, I seek to find alternatives to both conflicts, in promoting conflict resolution, security and development in both cases.





Author	R. Christian Phillips
University	Capital University
Title	Skipping through the Landmines: Revealing the Complex Battle for Britain's Soul in the Early 1930s
Once World War Two began Nancy Mitford categorically refused to republich her 1935 povel Wigs on the Green	

Once World War Two began, Nancy Mitford categorically refused to republish her 1935 novel Wigs on the Green satirized fascism and Nazism, stating, "Too much has happened for jokes about Nazis to be regarded as funny...After all, it was written in 1934, I really couldn't quite have foreseen all that came after." However, she was wrong. Using a New Historicist approach, my literary analysis employs three additional analytical theories: Mitford's writings on the aristocracy; Basil Bernstein's Code Theory, emphasizing a direct connection between language and class; and Lynda Mugglestone's work showing how accent can improve one's standing. I reveal how Mitford definitively establishes the ten major combatants in the power struggle for Britain's future political and social order, propels then to the inevitable violent clash between fascism and communism, before shrewdly showing that those holding true power would take no notice of these upstart "isms." The rise of fascism, communism, and Nazism as powerful ideologies forcefully influencing global dynamics throughout the last century continues to fascinate, requiring a deeper understanding of why these beliefs never took hold in certain societies. Understanding this has become a necessity for protecting democracy, interacting with their disciples, and working toward bringing basic human rights to everyone worldwide. This analysis raises Wigs on the Green from just a lighthearted skewering of the obsessed followers of fascism to its proper place—a stinging critique of extreme political ideals and a showcase for what is necessary in a people's history to keep them from taking hold.





Author	Aleksandra Piewcewicz
University	Plymouth University
Title	What is value of promotional vouchers by bars on North Hill?

The purpose of this project is to find out what is the value of promotional vouchers. There is little available academic literature exploring the subject particularly in the context of bars, located in the busy part of a major city. This research project concentrates on finding out if they can create value by improving attractiveness of the businesses and customer's loyalty. Marketing is a very big part of running a business and it has a massive impact on the success of the establishment. Not much research is in place to help bar's managers to make a decision about what promotional tool should be used as well as which one is the most effective in comparison to others. The data was gathered through a series of qualitative semi-structured interviews with the managers of pubs and bars in Plymouth, North Hill street. The results show promotional vouchers are not as effective as managers would like to believe as they do not impact customer retention. However, awareness of the establishment, number of customers and reputation are increased when promotional vouchers are used. This project is investigating impact of a promotional tool that is poorly explored in academic literature. It also exposes a lack of availability for small pub's managers, customer retention measuring tools.





Author	Adam Poland
University	Queen Mary University of London
Title	Comparative literature through online anthologies

My field of investigation is anthologies; and with a partner, I am constructing an online anthology, with an introduction and a commentary on each source. Anthologisation allows editors to both make and break literary canons, as well as providing grounds for further enquiry. Essentially, anthologies piece together different sources in a way that allows editors to comment on the individual sources as a means of articulating an idea or a theme. The process of selection has important literary but also political and ideological implications both for the individual sources as well as the overarching ideas or themes.

Our research involved a critical analysis of many anthologies and similar projects. We explored questions such as: what are anthologies? what do we use them for? what can they do? why would someone want to make one? I have examined several different anthologies as well as engaged in discussions with editors of existing anthologies. I have focused specifically on the political consequences of anthologisation and have explored many academic anthologies and their receptions, as well as commercial anthologies.

My anticipated conclusions will demonstrate that the inherently comparative nature of anthologies lends itself to the development of new appreciations for the field of Comparative Literature.



## **BCUR17** 25-26 April 2017 Bournemouth University



Author	Kyle Price, Dr Carol Clark, Dr Simon Dyall and Dr Jonathan Williams
University	Bournemouth University
Title	The Potential use of Slanted Cups for those with Restricted Neck Movements: A Feasibility Study

Older people are at risk of dehydration, which may be related to difficulty with the biomechanics of drinking, specifically neck extension. Sloped cups were designed to teach infants to drink from cups by minimising head movement, however, it is currently unknown whether these benefits can be applied to the elderly.

The aim of this project was to investigate neck movements during drinking with a sloped cup (Doidy cup) compared to a normal cup.

Twenty university students with no history of neck pain, were recruited (age (24.5 (5.7), 9 males). Neck movements were measured using inertial sensors affixed at participants' foreheads and sternums. Three cup volumes (low, medium and full) and two different chair types (high and low back) were used with participants drinking from sloped or normal cups. The relative angle measured between sensors in the sagittal plane was used to describe the range of neck movement.

Data were not normally distributed therefore Wilcoxen paired tests were used to detect significance with appropriate Bonferroni correction.

There were no between cup, chair or volume differences. The largest differences in neck movement were for the smallest volume between the sloped and normal cup (0.5Ű vs 1.6Ű respectively).

In young healthy students there is no difference in neck movements between the cups. However, using the methodology developed for this study, future studies will explore the effects in an elderly population with restricted neck movements.

This study was supported by Bickiepegs<sup>®</sup> the makers of Doidy cups and a Co-creation fund award from Bournemouth University.





Author	Annayah Prosser
University	University of Bath
Title	Burning Man Changed My Life: An Exploration of Transformative Experiences Following 'Transformational Festival' Attendance

Transformative Experiences (TEs) are events at which an individual gains new knowledge, which dramatically alters their perspective on their life and identity (Paul, 2012). So-called 'Transformative Festivals' provide a unique environment in which TEs are undertaken within a controlled time period. The largest of these festivals is 'Burning Man': a weeklong event held in the desert in Nevada, which hosts up to 70,000 people annually.

Anecdotally, experiences at Burning Man result in drastic life changes characteristic of TEs (Gilmore & Van Proyen, 2005). However a, systematic analysis of these experiences has not yet been conducted within the literature. It is therefore is not known whether these accounts are generally reflective of all participants at Burning Man, or only the experiences of a 'vocal minority'.

The present study addresses this gap in the literature by conducting a thematic analysis of TE content in festivalgoers. A free-response question was distributed via the event-wide Census survey, to which 1200 festivalgoers responded.

Results illustrate that TEs at Burning Man fall broadly into two categories. Changes to the 'interpersonal' self include an increased openness to others and an increased sense of psychological connection to others. Changes to the 'conceptual' self include an increase in self-acceptance, and the discovery of an 'authentic' self.

This study provides the first empirical evidence to support anecdotal accounts of TEs in festivalgoers. Our next step in this project is to look at how these TEs impact actual prosocial behaviour, and to elucidate the psychological processes underlying TEs in festival environments.





Author	Maria Puolakkainen
University	University of Warwick
Title	Investigating the Latin American Growth Tragedy: Do States Matter?

This paper discusses how state capacity impacts economic growth in twenty Latin American states. Employing a new panel data set and econometric analysis, this work empirically models economic growth between 1960 and 2009 with various regressions, attempting to isolate the relationship between a level of state capacity and subsequent economic growth. The growth model includes a broad range of controls including geographic and demographic variables, and historical and contemporary economic measures.

This research hypothesises that there is a positive relationship between state capacity and growth, given the virtuous effects on investment and productivity of a well functioning bureaucracy and state apparatus. Preliminary findings obtained through correlations and a na<sup>-</sup>ve econometric model support the hypothesis. The purpose of this work is to contribute to the research investigating the causes and lessons of the Latin American growth tragedy. This work employs economic growth theories to explain the findings, broadening the analysis to solutions from political economy.

This paper improves upon existing literature by using a new measure of state capacity developed by Hanson and Sigman, which includes three dimensions of state capacity: administrative, coercive, and extractive, rather than one. Due to the regional focus, this work aims to identify robust regional validity, recognising that the growth impacts of state capacity are regionally, politically, and temporally specific. If findings are robust, they could have policy implications that support a new take on state-building; such as challenging hiring and best practice traditions in bureaucracies, curbing corruption.





Author	Inigo Purcell
University	Oxford Brookes University
Title	How does John Taylor break the mold of seventeenth century poetry?

John Taylor, a self-educated waterman (ferryman, the 17th century equivalent of a taxi driver) broke the mould of seventeenth century poetry, and most interestingly, deliberately portrays himself as an arriviste and unashamed populist. In 1619 he sailed down the Thames in a paper boat, as a publicity stunt to raise interest in his next pamphlet of poetry 'In Praise of Hempseed' (which is an encomium in praise of paper). This stunt was necessary, as Taylor could afford to publish his works by a subscription model, only publishing when he had enough subscribers. He also, frequently, discusses this model of publication within his work. This presentation will explore how Taylor portrays literary production both as a spectacle and a commodity in 'In Praise of Hempseed', (including his portrayal of his voyage in the paper boat, and its failure as a voyage, but success in terms of gaining attention), and how, in particular, this breaks from dominant models of poetry at the time.

My research will draw upon the existing work on Taylor (notably Bernard Capp and Alexandra Halasz), Mary Ellen Lamb's work on 17th century popular culture, and Richard Helgerson's work on the forms of literary identity Taylor was attempting to dismantle, Taylor's portrayal of literary circulation in 'The Tale of Twelve-Pence' and mentions of Taylor by his contemporaries and within the Stationers Register (the official record of publications within the period).



## **BCUR17** 25-26 April 2017 Bournemouth University



Author	Willie-Henri Quah, Lamia Heikal, Gordon Ferns
University	Brighton and Sussex Medical School
Title	HIF-1a: a biomarker for atherosclerosis?

Cardiovascular diseases (CVD) are characterised by atherosclerotic lesions at arterial walls. The hypoxic milieu of thickened arterial wall is associated with the expression of Hypoxia-inducible factor 1 alpha (HIF-1a). This study aimed to identify key considerations for a valid and robust ELISA for HIF-1a, with potential clinical and/or prognostic value for CVD.

In vitro, rat aortic endothelial cells were subjected to chemical hypoxia (DMOG). HIF-1a was quantified in cell lysates. In vivo, the carotid arteries of male Wistar rats were injured by balloon angioplasty and HIF-1a was subsequently detected in plasma. In vivo samples illustrated a difference in the expression of HIF-1a compared to cell cultures. Peak HIF-1a was detected in cell lysates after 2h incubation, whereas in plasma samples, this was detected 24h after injury. In all samples, prolonged storage, even at -20C caused HIF-1a degradation. Thawing samples on ice cf. room temperature made a difference. The addition of protease inhibitor, aprotinin helped to counteract degradation. Western blots were not sufficiently sensitive to detect HIF-1a in cell lysates.

This study adds to the evidence that HIF-1a is a potential biomarker for arterial hypoxia and CVD when handled correctly. Further investigation is warranted on the disparity of HIF-1a expression, including across different cell lines and animal models, as well as expression under intermittent hypoxia.



## **BCUR17** 25-26 April 2017 Bournemouth University



Author	Lauren Quinn, Dr Philip Powell & Professor Jennifer Roberts
University	University of Sheffield
Title	Embodied economics: Implicit sensorimotor feedback and charitable giving

Experimental studies on 'embodiment' have explored the ways in which it is possible to influence individuals' decision-making and judgments by manipulating bodily feedback. However, there remains limited research into 'embodied economics', or how bodily information may affect economic decision-making.

This project takes a novel approach to explore the concept of embodied economics, by examining whether charitable giving could be influenced through implicit sensorimotor feedback, via arm movements. Based on the premise that forward (i.e., away from self) arm movements are associated with giving, and backwards (i.e., towards self) movements are associated with giving, and backwards (i.e., towards self) movements are associated with giving. In order to manipulate people's hand/arm movements prior to giving, we programmed a novel iOS app featuring a simple mental rotation task, which used the touch-and-drag element of an iPad. In this task, participants had to touch-and-drag the correct rotated version of a shape to the original version, either away from or towards themselves. 50 participants were recruited from University cafes to 'help pilot' this cognitive task and were rewarded with £3.00 for their time. Participants could choose to donate any amount of their earnings to charity in £1 increments (£0-£3).

Contrary to expectations, we found that participants donated significantly more in the 'towards self' condition, when controlling for time. Several possible explanations for this unexpected result and its implications for charitable giving will be discussed.





Author	Jose Raisey-Skeats
University	University of Leeds
Title	A national analysis of everyday racisms, discourses, and anxieties in Spain, with particular interest to Moroccan immigrants in policy, education, and generational differences in attitudes.

The purpose of this research aims to gain a wider scope of understanding and analysis into the experiences of Moroccan immigrants in Spain through the lens of everyday racisms, discourses and anxieties which exists within the public sphere of Spanish life. Furthermore, an interest has been manifested into highlighting the shifts in attitudes between different generational perceptions. Drawing parallels from existing literature and then my own experiences in the region of Catalonia, a trend in opinionated views has been noticed with regards to Moroccan's in employment and education. Moreover, in this body of work I have examined if there has been a progressive step forward in policy integrating immigrants into wider Spanish society, if global events have influenced the perspectives towards race, or, if in fact, it is a running narrative of the legacy of the past which determines the current racial anxieties.

The methodology utilised in this research is in several parts. Firstly, it is a review of the current literature and data which already exists and has been published in the public domain as the background to my research. A brief case study approach will be conducted from my own experiences teaching in a secondary school in the region of Catalonia.

The collection of qualitative data will be conducted using questionnaires. At this moment in time the questionnaires have been distributed, but participants are granted a week to ensure they are happy to partake in the research. Thus, the research findings have not been collected yet, although in the coming weeks the data will be collected and analysed to gain knowledge into the current racial anxieties in Spain.





Author	Sowmya Raju and Dr. John Schormans
University	Queen Mary University of London
Title	A study of error propagation when measuring network user experience & service quality through network performance

Streaming and sharing videos are in the top three most popular types of internet applications globally. To support these, network and service providers must ensure they meet pre-determined levels of performance for packet delay, delay jitter, and packet loss. To do this they measure the 'quality of service' (QoS) metrics (delay, jitter, loss).

New research has established that simply ensuring that QoS metrics are within specified levels does not itself ensure that the users' experience is good. The user-perceived quality of experience (QoE) 'what the users actually see and hear' has become a new way to assess network performance. QoE is on a Mean Opinion Score framework: 5=excellent, 4=good, 3=fair, 2=poor, 1=bad.

Recent research connects delay, jitter, and loss to QoE through mathematical formulas. These formulas have allowed research community to assume that once the QoS metrics are assured then QoE will be too.

Our research hypothesis is that the measurement of QoS metrics is subject to sampling errors, so translation back to QoE will also be subject to error. This has not been studied in the literature.

Our focus is to study the error propagation from measured QoS to QoE. By collecting data from the literature, then applying calculus and sampling theory, we will derive the relationship between errors in QoS measurement and errors in the predicted QoE.

Preliminary conclusions: There is significant error in the QoE prediction methods widely used by network and service providers in UK and globally. Our results have considerable potential for commercial significance.





Author	Gabriela Raleva and Tom Stafford
University	University of Sheffield
Title	Using Candy Crush game to study the role of reward in visual learning

Visual learning refers to the enhanced sensitivity to visually relevant stimuli. Affective value of stimuli (e.g. reward, punishment), has been proposed to enhance action selection via instrumental learning. However, in those studies value feedback does not stem directly from the visual stimuli and is rather indirectly associated with the stimulus. Moreover, the majority of studies in perceptual learning adopt an artificial approach of training participants in the lab for many sessions before testing them. We used Candy Crush game sets as it represents an ideal platform for natural visual learning and assessed the performance of experienced players that have willingly engaged in a lot of practice hours as well as non-players. participants completed a visual search task, searching for a uniquely-shaped Candy Crush target among a number of non-homogeneous Candy Crush distractors. Targets were divided into 4 conditions: neutral value, reward-value, punishment value and control condition and reaction time for detection was measured.

The results indicate that players reveal a consistent pattern of greater rewarding/neutral reaction time ratios than those of non-players consistent with the idea that features of affective-associated stimuli facilitate their perception in visual processing.





Author	Abbigail Ramadhar
University	Plymouth University
Title	Topical Negative Pressure Dressing for a Low Income Country

Negative Pressure Wound Therapy (NPWT) is not a new concept however it is not easily accessible in low income countries. Relevant literature on NPWT revealed the main reasons are due to cost and the need for electricity to power the devices. Therefore a simple low cost Topical Negative Pressure Dressing (TNPD) prototype has been developed to allow patients in low income countries access to a reliable method of NPWT.

Research was conducted to find out what already existed which revealed TNPD used in developed countries were not suitable for low income countries. However TNPDs were being made in low income countries out of readily available materials. A design specification was developed for a prototype focusing on the use of locally available materials which operates using an accessible and reliable power supply. The concept designs were evaluated using evaluation tables and evaluation matrix. The top two designs Tube and Gravity were taken forward to the development and prototyping stage. After evaluating both designs Gravity was the most suitable design and taken forward as the final solution.

Gravity was made for just under £6 GBP and created a pressure of 125mmHg operating from 1 hour and 45 minutes up to 4 hours and 50 minutes before needing to be reset. Gravity was taken to Kenya by a Doctor on 5th May 2016 to be evaluated and tested by technicians.

The device performed satisfactory under test conditions without patient involvement. The results from the technicians in Kenya will determine any design modifications.





Author	Ziwei Ran
University	Plymouth University
Title	A potential new target for heritage attractions in Britain - A case study of Plymouth

Chinese international students attracted much attention from different researchers. Although VisitBritain (2016) showed a keen interest in Chinese students, Huang and Tian (2013) research into the experience of Chinese international students as tourists in the UK, they did not focus on heritage tourism. The aim of this research is to investigate the experience of Chinese international students at British heritage attractions. More specifically, three research objectives are sought: (1) to examine their reasons for visiting heritage attractions; (2) to establish their behaviors at their chosen heritage attractions; and also (3) to make recommendations to heritage attractions, attract more Chinese international students and Chinese tourists.

A review of relevant literature sources in international student travel indicated that most of publications adopted questionnaires to provide snapshots of the student experience but very few of them used interviews to fully understand their experience. Therefore, a series of in-depth interviews were organized with managers or operations of heritage tourism attractions in Plymouth and also Chinese international students studying in Plymouth. Framework analysis (Ritchie and Spencer, 1994) was adopted to analyse collected data.

The conclusion of the research focused on the implications for both the heritage attractions and also Chinese international students. The heritage attraction find out more detailed information of the new niche market, at the same time, it also can help Chinese students studying in the UK know more about British history and culture to make the overseas study more meaningful.







Author	Bethanie Rance
University	University of East London
Title	An insight into how recreational drug use has become normalised in London club culture for young people aged 18-24.

Title of Project: An insight into how recreational drug use has become normalised in London club culture for young people aged 18-24.

The use of illegal drugs has significantly increased in the UK since 2013 and young people are engaging more with drugs on a recreational basis. For example, the Crime Survey for England and Wales 2014/15 shows that the use of had increased amongst 16 to 24-year olds between 2013/14 and 2014/15 (Office for National Statistics 2015, p1.).

Against this background this project explores why young people see recreational drug use within club culture as normal. It investigates 'how has recreational drug use become normalised in club culture for young people aged 18-24'. It seeks to develop an understanding of what the causes and effects are of taking drugs recreationally and why drugs are associated with club culture. Since club culture was introduced in the 1980s, the media has primarily focused on the illegal side of drugs and not getting to the root causes of why young people take them. This research will provide some significant new insights into recreational drug use amongst young people.

I will conduct semi-structured interviews with young people who take drugs or have been surrounded by young people who do. A non-probability sample (known as purposive sample) is used to recruit participants. My sample is gathered by visiting nightclubs across London and locating people who are willing to participate in interviews at a different point in time. The data will be analysed through transcribing interview data and using thematic coding and categorising to identify the relevant themes.





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University University of Sussex	
Title Passive influence of aggressive behaviour: Testing a new paradigm	

A prevalent explanation for the spread of aggressive behaviour is contagion theory suggesting that following instigation, involuntary influence occurs through mere exposure (Wheeler & Caggiula, 1966). However, studying aggression in a laboratory setting is difficult (Barratt, 1994) because of social desirability (O'Connor, Archer, & Wu, 2001). There is a need to test contagion theory against possible alternative models of aggression spread (such as self-categorization theory); but in order to do this, an appropriate experimental paradigm is required. The purpose of this study was therefore to pilot a new experimental paradigm to measure aggression in a controlled way, which would be useful for future research to test different theories of aggression spread. Participants (n = 60) were exposed to either an aggressive or neutral crowd noise. We took measures of Explicit Aggression (using a vignette) and Implicit Aggression (using an Implicit Association Test). We hypothesized that individuals exposed to an aggressive noise would score higher on both aggression (Krassa, 1988). Results illustrate that the type of condition did not have a significant effect. However, the perception of the aggressiveness of the noise significantly mediated the effect of type of condition on Explicit but not on Implicit Aggression. Therefore, this paradigm could aid understanding and mitigating toxic behaviours such as violence and disorder.





Author	Stephen Rayner, Dr Alston Misquitta, Farhang Fazeli, Jonathan Chin-Yan Gee
University	Queen Mary University of London
Title	Approximations for the higher-oder induction energy witin symmetry-adapted perturbation theory using a coupled-cluster references

Symmetry-adapted perturbation theory utilizing density functional theory---SAPT-DFT--- is a powerful means of computing and understanding the nature of inter-molecular interaction energies. However the theory has only been developed to third-order in the intermolecular interaction operator. Higher-order terms, that is, those from fourth- to infinite-order, are routinely approximated by the delta-Hartree-Fockterm (oHF) which does not account for electron correlation effects. While this term is known to be important for induction bonded complexes, such as hydrogen bonded dimers, there is increasing evidence thats how it must not be included for dispersion bounded complexes. The oHF term over binds the dispersion complexes leading to incorrect crystal structures that do not fit with experimental data and is therefore omitted in such cases. However, for systems that exhibit both hydrogen bonds and dispersion bonds there is as yet no solution and for this reason SAPT-DFT cannot deliver the correct inter-molecularinteraction energies for such mixed bonded complexes. In this project this issue is investigated on a group of pyridine dimers which are chosen to exhibit a variety of bondingtypes. By using Psi4 to calculate the couple cluster singles doubles and perturbative triple energies---- CCSD(T) --- to benchmark the SAPT-DFT pyridine dimer results we intend to provide a better approximation to the higher order energy corrections.

Combined with a novel definition oft he charge-transfer, we aim to ultimately develop a model for the higher order terms that can be applied to other complexes that exhibited both induction and dispersion bonding.







Author	Shannon Reeve
University	Bournemouth University
Title	To What Extent is Intimate Partner Violence Validated and Made Romantic in Fifty Shades of Grey (2015)?

Although Intimate Partner Violence (IPV) is a troubling social issue that affects up to 44% of women (Tjaden and Thoennes, 2000), it is still widely normalised within popular culture. The best-selling Fifty Shades of Grey novel was found by scholars (Bonomi et al., 2013) to contain IPV, but to date no study has determined whether IPV is present in the 2015 film adaptation of the novel.

This research seeks to build on that of Bonomi, and examine how IPV is presented within the Fifty Shades of Grey film. Using a textual analysis, this research examines the ways in which cinematic techniques – such as tone, cinematography and point of view- have been employed to minimize the appearance of intimate partner violence, and even recode this behaviour as romantic within the film.

Cultural texts -such as film- are often reflective of societal views, which makes popular films like Fifty Shades of Grey such a vital and fascinating subject of study. Discourses surrounding love and violence are noted as one potential contributor to women staying in abusive relationships (Lloyd, 2000; Towns and Adams, 2000), so an understanding of the ways in which popular culture contributes to the normalisation of violence is key to tackling the issue.

Journalists noted that the Fifty Shades of Grey film appeared more romantic than the novel it was based on, and the findings of this research have found this to be true. The visualisation of romantic scenes, the exclusion of scenes audiences may have found less romantic, and the loss of Anastasia's internal monologue contributes to the presentation of incidents that would cause concern in real life as romantic.





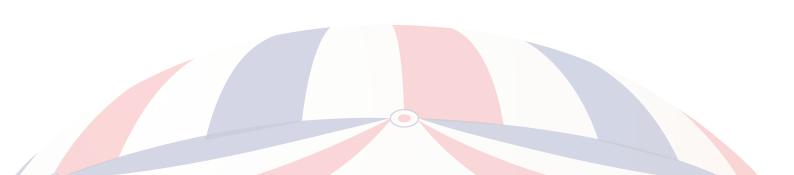
Author	Shayla Reid
University	Bournemouth University
Title	Radical Feminism: Exploring a Male Free Existence

This paper explores the key ideas of Radical Feminism and the relevancy of the theory in our society today. This will explore how this theory engages with and is critiqued by intersectionality.

Using the research of a range of scholars including Renate Klein and author of The Female Eunuch Germaine Greer, and PR examples, this paper will consider the ideas and views that radical feminists have on topics like male feminists, marriage and reproduction. It is also important to explore the negative representations that radical feminists receive and how the approach in their activism could affect whether social change will ever occur.

Many scholars hold their own critiques of Radical Feminism and I will be focusing mainly on the works of Emi Koyama to point out the flaws in this perspective. There will also be examples of popular radical feminists' texts to highlight where intersectionality is lacking. This paper will also explore if radical feminism in the public relations industry is even necessary by linking it to PR campaign 16 Days of Action issued by The Corporate Alliance, a charity focused on eradicating domestic violence by assisting and supporting company employees who are victims of domestic violence.

Radical feminism is a perspective that is unexplored and unfashionable in discussions of public relations. This paper will show engagement with and a critique of the theory has a contribution to the field.







Author	Eleanor Riches
University	Bournemouth University
Title	Destination Employment: The Influence of location on seasonal tourism employment

Seasonal or temporary tourism employment is often perceived as desirable or glamorous (Szivas et al 2003), however there is a significant body of academic work that demonstrates that peripheral tourism positions are often low paid, long hours, menial, emotionally exhausting and with little training and development opportunities (Karatepe and Sokmen 2006; Karatepe and Uludag 2008). Nevertheless, employees are still attracted and motivated to fill such jobs.

Current academic research only partially accounts for employee motivation to fill such marginal positions. Research regarding employee 'fit' in terms of person-job, person-organisation, and person-environment fit (Solnet et al 2013; Mitchell and Lee 2001) is extensive, but does not account for the perceived attractiveness of seasonal tourism employment.

This paper draws on the tourist destination attractiveness literature (Matzler and Siller 2003; Swarbooke and Horner 2007) in conjunction with the employment-fit research in order to assess if location acts as a significant motivator in attracting and retaining employees in seasonal tourism positions.

The study incorporates empirical qualitative interviews with seasonal tourism employees at a variety of locations. Preliminary findings indicate that person-location fit has a significant influence on attracting and motivating employees to seasonal tourism positions. Disregarding the low pay aspect, it is discussed that a high level of job satisfaction exists (Riley et al 2002). The research findings have implications for tourism organisations when seeking to recruit and retain seasonal employees.





Author	Cordelia Roberts, Morten Iverson and Colin Munn ( Project Supervisors)
University	Plymouth University
Title	Could microplastics affect carbon transport in the oceans?

Microplastic pollution is an increasing problem in the world's oceans. Microfibres from synthetic fabrics are being transported to the oceans with washing machine wastewaters, making up a large percentage of microplastic pollution. Once in the ocean, microfibres are affecting marine life directly when animals ingest the microfibers. Microfibres might also influence the transport of organic matter from the surface ocean to the deep sea by altering the buoyancy and sinking velocity of formed aggregates. To study this, we incubated different concentrations of microfibres and diatoms to form sinking aggregates.

We followed the aggregate formation, their characteristics and sinking velocities over time for the different treatments and found that aggregates formed faster and were larger at the low plastic concentrations in comparison to incubations with no and high plastic concentrations. High plastic concentrations formed positively buoyant aggregates with less organic content compared to no and low plastic concentrations. Our findings suggest that high plastic concentrations in the ocean will decrease the efficiency of the biological carbon pump by forming non-sinking organic aggregates and preventing the transfer of organic matter from the surface ocean to the deep sea. This will reduce the uptake and storage of atmospheric CO2 by the oceans.







Author	Georgia Robertson
University	Bournemouth University
Title	Lead generation e-mail campaigns: Understanding influencers of their success.

Over the years e-mails have acquired a negative stigma due to an increases of unsolicited contact to generate business leads, these are commonly known as lead generation e-mails. This has ultimately caused a dramatic drop in engagement within business-to-business (B2B) e-mail campaigns. With over 100 billion business emails sent and received every day, it is key for e-mail marketing to stay at the forefront of any marketers mind. Due to the mass application of e-mail in business communications it is important to know how we can optimize the success of e-mail campaigns.

This dissertation aims to identify which independent variables, under the control of the sender, influence the success of lead generation e-mail campaigns. The successes of the e-mail campaigns are measured using the following market metrics: open rate, click through rate and unsubscribe rate. These are related to levels of engagement using statistical analysis of over 500 lead generation e-mail campaigns and 17,000 e-mail opening times.

Independent variables that are considered to influence e-mail campaign success include the type of data, subject line, copy and links located in the copy. The results established the relationships between variables and their influence on e-mail campaign engagement and ultimately the success. Marketers using e-mail as a main channel for contacting prospect customers will find these results important for optimising their chance of converting leads into customers.







Author	Timothy Roebuck
University	University of Huddersfield
Title	What are the Reasons Behind the Perceived Risk of Becoming a Victim of a Terrorist Attack for Males and Females?

As a general rule, perceived risk and more generally fear of crime are quantitatively analysed in order to test preestablished theories (see Ferraro, 1995 and Nellis, 2009). Therefore, little room has been left for the sufferers to inform theory themselves.

This presentation aims to outline unique findings from a qualitative analysis of the construction of perceived risk of terrorism in males and females. Perceived risk has been assumed from the literature to be paired with sensitivity to risk (Warr, 1987), that is an emotional reaction to the offence, a lack of control and uncertainty (Jackson, 2015). The risk analysis process is also dissected similarly into affective heuristics (Slovic et al., 2007) and rational analysis (Slovic et al., 2004). Gender has been clearly identified in the literature as the most salient variable when explaining differences in perceived risk (Warr, 1984), alongside less well-established variables such as age (Tulloch, 2000), socioeconomic background (Smith & Torstensson, 1997) and educational attainment (Lemyre et al., 2006).

A sample of four males and four females was gathered and interviewed with particular focus on the emotional aspect of perceived risk and risk analysis, however interviewees were also free and encouraged to identify factors involved in the construction of perceived risk independently. It is demonstrated that emotional response and evolutionary shortcuts in risk analysis are most salient to perceived risk construction, therefore reinforcing the theory of sensitivity to risk as an essential pairing with perceived risk (Warr, 1987).





Author	Caeris Rosevear
University	Plymouth University
Title	The Experiential value of JD Wetherspoons to revisiting customers and repurchase intentions

Determining what constructs of experiential value that encourage regular customers in repurchasing habits and revisiting on a regular basis has been mentioned as being difficult to determine.

This project focuses on JD Wetherspoons, as an example and its regular revisiting customers. Both primary and secondary research was conducted for the validity of this study to obtain an accurate response. Experiential value is made up of many different constructs which give consumers a perceived preference for specific products or services and the process in which obtaining these products are performed during a visit or experience.

Previous research that has shown that customer loyalty actually reduces marketing costs and increases profits to marketers and that of loyal customers encouraging a positive word of mouth (Jin, Lee and Huffman, 2002). From completion of this study it was determined that the main constructs of experiential value that influenced repurchasing behaviors included that of return of investment, atmosphere and the quality of the staff. Concluding that experiential value has a huge role in repurchasing behaviors and influencing customer re-visitation.



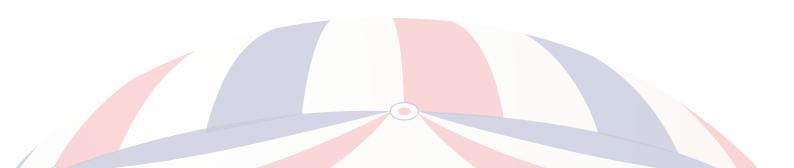




Author	Dannielle Ross-Barton
University	Southampton Solent University
Title	Alice who? The representation of identity in Tim Burton's Alice in Wonderland.

Alice in Wonderland is a classic children's book that has been adapted many times in film and other media. This research focuses on Tim Burton's recent 2010 film adaptation Alice in Wonderland. Using this film, I examine how the adaptation explores adult themes of maturity, identity and feminism. In particular I use an in-depth analysis of the character of Alice to understand how the story is transformed in relation to Underland (as it is called in the film).

The research uses theorists such as Jeffery Andrew Weinstock whose book The Works of Tim Burton: From Margins to Mainstream (2013) provides a critical analysis of Burton's version of the story, arguing for the transformation of Alice from child to woman-warrior. I explore the styling of Burton's adaptation to consider how the audience is encouraged to identify with Alice. Using this approach I am able to make connections between the character of Alice and contemporary society, to argue that the film asks important questions about what identity means not only to the individual but also on a cultural scale to indicate the significance of fantasy.







In the UK about 50,000 people live with the consequences of spinal cord injury (SCI), with around 1000 new cases each year. Nerves inside the brain and spinal cord control movement and sensation of our bodies, and injury to the spinal cord causes significant loss of functions below the injury level. The mammalian central nervous system (CNS) inhibits nerve cell re-growth by forming a scar and inducing production of inhibiting molecules around the injury. There is an urgent need for new approaches to improve recovery of the nerve function.

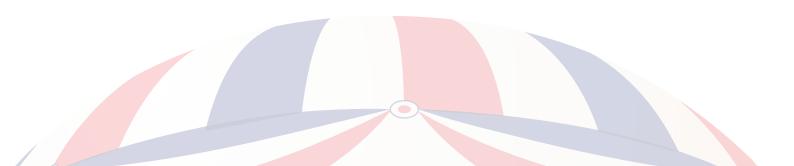
Eicosapentaenoic acid (EPA) and Inosine were previously shown to increase neurite outgrowth of rat cortical neurons in vitro suggesting their potential to aid CNS nerve cell regeneration. In this project, EPA and Inosine were applied independently at different concentrations to cortical neurons cultured from rat pups at postnatal days 1-2. After treatments, neurons were fixed and stained with a specific marker. Then neurite outgrowth at each condition was analysed from images obtained by fluorescence microscopy. Further analysis was carried out to assess how the treatment affected the neurite morphologies of the neurons. Each neuron was assigned to one of the four groups according to its neurite morphology: none, growth cone, simple or complex. The most potent concentrations were 0.4uM for EPA and 50uM for Inosine. After both treatments, neurons with simple and complex neurite morphology showed greater neurite outgrowth than controls. These results suggest the potential employment of Inosine and EPA in SCI treatments, upon validation of their actions in vivo.





Author	Fatma S. Saleh and Timothy R. Jordan
University	Zayed University
Title	Assessing the Importance of Letter Pairs in Arabic
A number of studies have shown that exterior letters of words play an important role in word recognition in English.	

A number of studies have shown that exterior letters of words play an important role in word recognition in English. However, nothing is known about letter pair effect in Arabic due to the lack of research about the Arabic language. This experiment aims to assess the importance of letter pair in initial, exterior, interior and final positions in Arabic through degrading them visually. Examining letter pair effect for single Arabic words was done through using lexical decision task. In this experiment, 20 participants viewed degraded and non-degraded real words and non-words and were asked to decide whether it is a real word or non-word. Expectedly, all degraded conditions increased the reaction time for recognizing words to various degrees. Recognition process of words with degraded exterior letter pair was slower than words with degraded initial, interior and final letter pairs. The results indicate the importance role of exterior letter pair in recognizing Arabic single words.







Author	Fiona Saint
University	Plymouth University
Title	These stupid sketches: New perspective on the drawings, letters and poems sent by Âmile Bernard to Vincent van Gogh in 1888 on the subject of prostitution
Between April and October 1888, Amile Bernard sent Vincent van Gogh a series of humorously annotated studies, culminating in a suite of drawings titled 'Au Bordel.' These "stupid sketches" have not been overburdened with scholarship. Although they are related by subject matter to Degas's brothel monotypes, their relationship has not	

culminating in a suite of drawings titled 'Au Bordel.' These "stupid sketches" have not been overburdened with scholarship. Although they are related by subject matter to Degas's brothel monotypes, their relationship has not been extended to 'La Maison Tellier,' Guy de Maupassant's 1881 short story about a brothel, which Degas's monotypes were used to illustrate. Two of Bernard's caricatures are, I propose, recognisable from Maupassant's story: "Rosa" and "Raphaele." Whereas recent feminist scholarship has problematised Degas's monotypes within nineteenth century gendered discourse, little attempt has been made to situate Bernard's project within such discourses about prostitution. This is perplexing given that emerging feminist voices were raised in this context at the time.

Also missing from recent accounts is that the debate concerning the state regulation of brothels, an underlying theme of 'La Maison Tellier,' escalated in 1888 with the censorship of 'Le Courrier Français' for the publication of a drawing critical of regulation. Bernard's gambit was therefore more topical than has been realised. In Maupassant's narrative Rosa bursts into tears at a first communion, prompting the congregation to follow suit in remembrance of their lost innocence; an event promptly declared miraculous by the priest. Since Bernard claims to have lost his faith during his own first communion, and his return to Catholicism can be traced to his correspondence with Van Gogh at this time, his "stupid sketches" demand renewed attention.





Author	Hannah Sampson, John Hammond and Andrew Goodall
University	University of Reading
Title	Do soil bacteria promote plant growth?

Soil phosphorus (P) exists in a number of forms and the availability of these forms is determined by soil and P chemistry, microbial activity and plant growth. The growth of crops is dependent upon receiving an adequate supply of P, in the form of phosphate (Pi) from the soil solution into the roots. In an agricultural environment this Pi is normally delivered in the form of inorganic Pi fertilisers and through the release of inorganic and organic forms in the rhizosphere through the activity of microbes, root exudates and soil chemistry. Understanding the role that microbes play in determining the availability of Pi is vital to optimising our use of non-renewable Pi fertilisers.

This project contributed knowledge to a BBSRC-funded Soil and rhizosphere interactions for sustainable agriecosystems (SARISA) project. The project investigated the effects of applying combinations of five common soil bacteria to field soil, with and without additional P, on the growth of Brassica rapa and its accumulation of Pi. Shoot samples were collected to measure differences in growth and rhizosphere soil samples were collected for use in the BBSRC-funded project. The shoot samples were also analysed for their free Pi concentrations. Whilst there was no significant effect of the bacteria on shoot biomass, there was a significant effect on shoot Pi concentration, with some combinations of soil bacteria increasing the uptake of Pi and some reducing the uptake of Pi by the plants. This highlights important synergistic and antagonistic relationships between the soil bacteria used in this study.

## **BCUR17** 25-26 April 2017 Bournemouth University



Author	Aaron Sandoval, Dr. Malcolm Maden, Dr. Jason Orr Brant
University	University of Florida
Title	A Histological Comparison of Ear Skin Regeneration In Acomys and Mus

Regeneration has been studied almost exclusively in lower invertebrates as most mammals are only able to regenerate fetal tissue. The African spiny mouse (Acomys) represents the first time advanced regeneration has been observed in an adult mammal. Acomys has evolved a defense mechanism which involves fragile skin that tears easily when caught by a predator, allowing the mouse to escape. Subsequently, the mouse regenerates extensive parts of its body. The regenerative capabilities of Acomys are being studied by comparing it to a normal mouse (Mus).

In order to compare the progression of ear regeneration in Acomys and Mus, ears of both species were wounded using a four-millimeter punch to remove the epidermal and dermal tissue layers, revealing the underlying cartilage. The healing ears were harvested at 2, 4, 7, 14, 21, and 30 day time points. The ears were subsequently embedded in wax, mounted on slides, and trichrome stained to differentiate between erythrocytes, muscle and collagen.

Microscopic analysis revealed that although the cartilaginous layer eventually degenerated in both species, extensive degeneration was present much earlier in Mus. Furthermore, Acomys was able to regenerate its cartilage and hair follicles, whereas Mus was only able to regenerate a disorganized, nonfunctioning mass of collagen. Significant scarring was evident in Mus, while no scarring was observed in Acomys. The results of further study of Acomys could prove integral in gaining a comprehensive understanding of the regenerative process. Findings could ultimately improve the entire healthcare field by allowing for the regeneration of human tissue.





Author	Pollyanna Sapsford and Dr Nicola Gregory
University	Bournemouth University
Title	The influence of task instruction on the detection of social awkwardness and eye movements

Much research into social awareness neglects to address the role of task instruction or an individual's interpretation of 'social awkwardness' when judging social scenes. A number of previous studies have assumed that participants spontaneously mentalize when judging social awkwardness, but there is little evidence showing how this affects their cognitive processes. This study aims to explore effects of task instruction on people's ability to successfully identify socially appropriate and socially inappropriate behaviour in videos of social scenes. Viewing behaviour and accuracy will be compared across 3 groups of participants (N=45): i) specifically instructed to mentalize ii) asked to judge if an awkward moment occurs based on a definition of 'social awkwardness' iii) free-viewing. As links have been found between looks towards faces and mentalizing, participants will view 16 clips of social scenes whilst eye movements are recorded. All participants except the free-view group will be asked to judge social awkwardness. In the control condition, only looking behaviour will be measured along with non-social control questions. We expect the task instruction to have a significant effect on looking behaviour and accuracy. If the instruction to mentalize enhances social cognition as suggested, the Mentalizing condition will have increased accuracy; and more dwell time on faces will correlate with higher accuracy. Practical and theoretical implications of these findings will be discussed around their effect on future research.





Author	Elli Sarvari
University	Staffordshire University
Title	Evaluating victim journey experience when reporting a sexual offence
in which sexual support needer support system available and t the support the were contacted Centres, counse questions were gain numerical organisation p researched by the process of could positivel	s are a rapidly rising type of crime, creating a major global issue. Since the early 2000's, the way al offences are dealt with has changed. As a result, an increasing emphasis has been placed on the d for victims to ensure they can overcome this traumatic experience. This presentation looks into the ns available for victims of sexual offences. The aim of this research was to evaluate the organisations to establish what their role is in regards to supporting the victims, as well as determine how effective ey provide is in relation to the overall process. Multiple relevant organisations within Staffordshire d and interviewed in a semi structured manner. These organisations included Sexual Assault Referral elling charities, as well as generic victim support services for all types of crimes. A standard set of e used in order to collate the data received. Some questions were asked on a Likert scale in order to l data. The questions focused on what the organisations aimed to achieve for victims and what services rovided. A secondary aim of the study was the public awareness of support services available. This was conducting a questionnaire. This provided an understanding of what young women understood to be reporting sexual offences, as well as the support services they expected to be available. This research y impact the support available for victims of sexual offences by identifying areas for further research canding public awareness of support services.







Author	Morgan Saunders
University	Lancaster University
Title	King Henry VI of England and France: A reassessment

Modern historiography depicts King Henry VI of England (1421-1471) as medically insane, inept at royal governance and incompetent in prosecuting the Hundred Year war with Valois France. Bertram Wolffe, a notable scholar on this subject, views Henry VI in a similar vein as King John 'Lackland' (The personal rule of Henry VI). These assertions are based on a flawed understanding of how historical narratives are influenced. Jack Lander in Conflict and Stability astutely comments, late medieval chronicles are incomplete, myopic and most importantly prejudicial. The vast majority of fifteenth century literature surrounding Henry VI conforms to Lander's final point; and contain explicit pro York/anti Lancastrian sentiment. The popular Brut Chronicles provide a clear indication of propaganda and contribute towards a pernicious historical depiction of Henry VI. Modern commentators it would appear have simply accepted this narrative without question.

This investigation sought to challenge the discourse by focusing on Henry's mental state, his foreign and domestic policy and the posthumous cult. Qualitative methodologies were chosen. Advice literature in the Mirror for Princes acted as an effective alternative to the chronicles in assessing Henry VI's reign. Cross discipline, psychohistorical analytical tools were also deployed. Cognitive Orientation provided speculative insight into Henry's mental disposition.

Catatonic depression and schizophrenia may be an accurate diagnosis of his condition. Political diplomacy reveals Henry VI as pragmatic realist. Religious narratives reflect Henry as adherer to self-mastery and support Tudor dynastic legitimization. Relevance of this work has value in correcting a flawed historical narrative.





Author	Iqbal Savage
University	Bournemouth University
Title	Erasure and Contradiction: Finding black women's voices in PR

This paper explores the contribution Black Feminism offers to understanding Public Relations. This will demonstrate how adopting an intersectional approach is necessary to understand the complex inequality encountered by black women, whereby they are subjected to multiple oppressions. This examines the identity struggle of black feminists in the form of race, class and gender and how marginalisation from women's liberation sees black women inhabit a third space which exists a vacuum of erasure and contradiction (Bhabha 1990).

This will develop an understanding of how power structures and political discourse may impact future generations due to failure to comprehend social inequality creating a sense of ignorance, unfortunately still evident today. The investigation will discuss a white patriarchal supremacist standpoint that has been maintained over time and ingrained into society. Furthermore, the lack of acknowledgement for diversity highlights manifestations of invisibility and whitewashing ultimately suggesting that any desire to embrace an unorthodox identity could see certain audiences ostracised from public spaces.

These oppressions need to be considered together rather than separately and the taboos of black feminism and intersectionality have to be explored with Public Relations. Campaigns such as 'Black Lives Matter' have learnt from past mistakes due the forced polarization of black feminism and the Civil Rights movement and are forcing a conversation about social inequality. Essentially this perspective emphasises these attitudes shape subjectivity making us re-examine the status quo and critiquing structural inequality.





Author	Natalia Sawicka and Dr Kenneth White
University	London Metropolitan University
	Inhibitory influence of Branched Chain Amino Acids and Analogues on Gluconeogenesis' implications for the treatment of Type 2 Diabetes.

Non-insulin dependent diabetes mellitus, known as type II diabetes (T2D), is caused by insulin resistance and defective insulin secretion, resulting in impairment of systemic glucose homeostasis.

After a meal is absorbed, the body maintains glucose levels through synthesis in the liver from non-carbohydrate sources via gluconeogenesis. Patients with T2D have an increased rate of gluconeogenesis causing elevated levels of glucose after an overnight fast, due to lack of insulin activity.

Metformin is a mainstream drug treatment for T2D, that reduces the hepatic glucose release into bloodstream and increases insulin sensitivity. However, for some patients it is ineffective, or causes side effects.

The seeds of fenugreek, a plant used traditionally in the treatment of diabetes in Asia, contain an unusual amino acid 4-hydroxyisoleucine (4-HO-Ile), which has anti-diabetic activity in animal models of both type 1 and type 2 diabetes. 4-HO-Ile can stimulate uptake of glucose in cultured muscle cells, but the molecular basis of 4-HO-Ile action is not fully explored. This study utilizes liver hepatocellular carcinoma HepG2 cells to assay the impact of 4-HO-Ile, and other branched chain amino acids and derivatives on inhibition of gluconeogenesis. We found that 4-HO-Ile could produce a greater inhibitory effect than insulin, but the effects of other amino acids such as valine and isoleucine were weaker. The data suggest another target for the action of 4-HO-Ile, and future work will assess the regulatory involvement of AMP kinase.

Our data add further evidence that 4HO-Ile could be considered as an alternative treatment for T2D.





Author	Sophie Schelt
University	Utrecht University
Title	A new method to investigate the regulators of the promoter of cyclin D1, a cell cycle regulator, in Caenorhabditis elegans
the cell cycle a signals. Deregu Cyclin depende fairly constant, 1 promoter in elegans to disc	pression is a highly controlled and important process during development. Cells that differentiate exit and do not divide anymore. The decision to progress or exit the cell cycle is regulated by external ulation is often hazardous and could lead to uncontrolled cell division in cancer. The Cyclin D (Cyd-1)/ ent kinase-4 (CDK-4) complex is active in the first phase of the cell cycle. Since the level of CDK-4 is , the transcription of cyd-1 gene could be regulated. However, the transcriptional regulators of the cyd- C. elegans are unknown. We developed a new high throughput screening method for mutagenized C. cover regulators of the cyd-1 promoter. The screen is based on a switch from blue to red fluorescence ed cells that re-enter the cell cycle due to a mutation. The mutation leads to activation of the cyd-1

promoter initiating cells that re-enter the cell cycle due to a mutation. The mutation leads to activation of the cyd-1 promoter initiating cell cycle in differentiated cells, resulting in a switch to red fluorescence. The mutant animals with red fluorescing cells can be detected and isolated by the Biosorter. The BioSorter is a fax for larger samples and parameters can be set for fluorescent intensity, profile and animal size The sorted animals are singled and checked by eye for actual expression. We have isolated a new mutant (he284), which seems to activate cyd-1 promoter. This mutant will be characterized, cloned and incorporated into the established pathways. This knowledge can be used to develop new anti-cancer pharmaceuticals.





Author	Warrick Schmidt
University	Bournemouth University
Title	The effectiveness of strength training interventions to increase joint position sense in the shoulder in healthy individuals: a literature review.

Joint position sense (JPS) facilitates healthy shoulder biomechanics via afferent feedback maintaining humeral head alignment. JPS deficits may increase injury rates and are present in common acute and chronic shoulder pathologies. Despite focus on improving JPS, there is limited evidence investigating strength training interventions alone to increase JPS in healthy participants. Determine the effectiveness of strength training interventions to increase shoulder JPS in healthy participants. A search through mySearch was used to find relevant literature in November 2016. Papers were critically appraised for quality using the Downs and Black assessment tool and data analysis was done by narrative synthesis. Six papers were found with moderate to high methodological quality. Assessment was consistent across five studies with no differences at pretest over control groups. There was mixed evidence for strengthening however three articles found significant improvements at posttesting. Exercises incorporating more of the kinetic chain appeared most effective. Plyometric exercises are effective provided there is prior conditioning and higher intensity training intensity appears more beneficial. Small samples and low age range limit generalisability yet impact of gender may be less important. The untrained nature of participants may widen application to populations with reduced neuromuscular development or injury prevention.

There is moderate to high quality evidence that simple strength training exercises can improve JPS in health unconditioned participants. Implications for clinical practice include shifting focus onto intensity of training using fundamental movement patterns.





Author	Farhasaad Shahid
University	Queen Mary University of London
Title	A Year in the Life of Omar: youth, masculinities and forced migration

This research investigates the current refugee crisis in Europe from the perspective of young male refugees fleeing war-torn countries of Syria, Afghanistan and Iraq, and seeking refuge in Finland. Drawing upon broader theoretical debates related to forced migration, masculinities and youth, and the politics of integration and waiting, the research focuses upon migrant journeys, reception, and the asylum process in Finland. This is explored through a qualitative methodology. In-depth semi-structured interviews were conducted with research participants located in refugee camps in cities Helsinki, Vantaa and Espoo. Participants were accessed via multiple gatekeepers. The use of qualitative methods facilitated young men's voices to be heard.

The key findings to emerge from this research included: (i) How masculinity and youth had an impact on the way they experienced their journeys, and how these journeys were onward migrations. It was found that the reasons for fleeing homes and how journeys were undertaken were similar among participants coming at this time. (ii) At the reception stage, cultural shock was experienced at isolated refugee camps where health and social care was insufficient for the young men. (iii) The refugees expressed how aimless waiting for the asylum process decision left them with a loss of motivation and mental health issues. While many wanted to integrate into the Finnish society, some were still hopeful that one day they would return back to their homes. Overall, the research found how background and journeys affect how the refugees experienced reception and integration.





Author	Priyanka Sharma
University	Bournemouth University
Title	The younger generation in the workplace: A Qualitative Study into how Generation Y are motivated in their roles at work.
Over the part for wars the work place has become a more multi-constational and diverse environment. Constation	

Over the past few years the work place has become a more multi-generational and diverse environment. Generation Y, (Gen Y) are those currently aged between 20-35. With approximately 13.8 million people who make up Gen Y in the UK (Lyons, 2016) the younger generation now represent a new work force in a global market. Influences such as the modern education system, high interaction with technology from a young age (Black, 2010) and social media influences (Rai, 2012) all vary considerably in comparison to the experiences of the generation prior (Gen X). As a result, previous research has identified ways in which Gen Y's attitudes and values towards work vary (Tolbize, 2008). Gen Y are highly influenced by flexibility and work place culture in making employment decisions (McCrindle, 2010).

Through interviews and qualitative analysis, this study aims to delve further into Gen Y's attitudes towards work further by investigating which factors motivate them throughout their careers. This will also uncover whether consistent themes such as money and flexibility/work life balance from previous research (Twenge, 2008) play a role, and whether any comparisons can be drawn to Gen X's views. Furthermore, this study differentiates itself from previous research by also gaining insight into the managers' views to build upon participant responses.







Author	Annabel Shawcroft
University	Bournemouth University
Title	To what extent does Mastectomy and Breast Conserving Surgery (BCT) have on shoulder function following Breast Cancer Treatment

## Background:

Breast cancer (BC) prevalence is 15 % of all cancers. One major side effect of treatment is decreased shoulder function which with increasing survivorship is likely to rise. Identifying interventions that may help the shoulder is a priority.

## Objectives:

To identify the extent that mastectomy (MRM) and breast conserving surgery (BCT) have on shoulder function. Method: Utilising mySearch with a systematic approach, five studies were identified and critically appraised using a methodological assessment tool. All studies included a single evaluation session with various outcome measures.

### Results:

All participants had completed their BC treatment with an approximate follow up period between 5 months and 7 years. All studies reported participants who had undergone BCT surgery had significantly less disability or functional difficulties with their affected arm when compared to MRM participants. Two studies showed significant reduction in shoulder abduction and flexion in MRM participants. Two others reported a significant reduction in internal rotation in BCT participants. There is low evidence to identify if MRM or BCT affects shoulder morbidity after the completion of treatment for BC due to various threats of bias.

# Conclusion:

Studies identify a high proportion of the participants had shoulder difficulties secondary to BC treatment. The level of disability varied and there is significant evidence to suggest MRM surgery has greater effect on the shoulder. Future research should explore how adjunct therapies affect shoulder function giving rise to increased services addressing the shoulder post BC treatment.





Author	Shamae Sheath, Jacqualine Page and Xun He
University	Bournemouth University
Title	The influence of dual performance and induced anxiety on face recognition performance

It has been widely shown that eye witness performance benefits from moderately elevated anxiety and suffers from high anxiety levels (Deffenbacher, 1983). Furthermore, our recent study showed enhanced eye witness performance when a face matching task was carried out by two persons (dual performance) (Bobak et al., in preparation). However, it is unclear how these two factors might interact, given that the presence of another person can also affect the anxiety status. The performance difference between an individual and a pair can also vary across anxiety levels. The current study planned to study this interaction by comparing face recognition performance between the individual and pair groups in low and high anxiety status. Faces will be presented against crime scenes which are either normal (low anxiety) or moderately bloody (high anxiety). Each participant will carry out both the low and high anxiety sessions, which will be counterbalanced in order and separated by a filler task (to remove any carry-over effect of the induced anxiety). Data will be collected from 30 participants in each group, and be analysed with a mixed-design two-way ANOVA. It is hypothesised that the pair group outperform the individual group, and that this performance enhancement is greater in the high anxiety condition given that the anxiety level is moderately high. In addition, state and trait anxiety will also be measured and correlated against the face recognition performance. It is hypothesised that the individual difference in performance can be predicted by the participants' state anxiety levels.





Author	Angela Shek and Tracey J. Hampton
University	Plymouth University
Title	Territory mapping of the European badger (Meles meles) on a zoo site

"Many animals use signature scent marking as a method to communicate with each other, the European badger (Meles meles) is one prime example using communal faecal pits called latrines as a form of communication. The aim of this project is to use bait marking and camera trapping to determine territorial ranges, how many social groups were at our sites and how many individuals to a social group within Paignton Zoo and adjacent woodland nature reserve.

Our results revealed three separate social groups and three territories, two in woodlands and one in the zoo. We obtained overall images which show the maximum and minimum appearances of badgers per image, four individuals in woodlands site and one individual at one of the zoo site. We believe this result may not be the exact number of the badger population, but it is a fair representation. We found that clans from the reserve also use the zoo site but the larger setts were found in the woodland area away from public access. Although our main zoo area is a hotspot of badger activity, we have noticed the sizes of zoo site setts are smaller than those in the woodlands. We speculate that disturbance from our day visitors and lack of suitable habitat prevents the establishment of larger setts."





Author	Nan Sheppard, Rosy Watts, Georgia Tozer
University	Bournemouth University
Title	Food Economies in an English housing estate: perspectives from history and social anthropology

This poster is based on a study of changing land use and ways of producing and exchanging food on a council estate in the south of England. As the reliance on food banks amongst much of the population is an issue of national concern, this research explores how food security had been negotiated in this deprived area in the past, in particular between 1930 and 1980, as compared to now.

West Howe is a large council estate near the town of Bournemouth. It was built after World War Two, in an area which previously comprised heathland, small hold farming and some Gypsy itinerant populations. From the 1930s, the area's population rapidly expanded, as new populations settled in housing built on previously agricultural land. Our research traces how these wider shifts are reflected in local food production, exchange and consumption. We used oral history methods including interviews with long term residents, coupled with archival methods such as historical maps. We also conducted a survey with current residents, to explore current food practices and experiences of food security.

Our key finding is that practices and ethics of self-sufficiency around food were remarkably resilient until the 1980s. A variety of crops, livestock and crafts were apparent with good networking, industry and trade between farmers and now-settled Gypsy groups. Today, a majority of West How residents report that their food comes primarily from supermarkets. Many families report feelings of anxiety about their food supply, given the financial insecurity which plagues the area. Only those claiming old Gypsy heritage and the passing down of self-sufficiency skills reported a sense of connection with the land and feelings of security surrounding food supply.





Author	Charlotte Sherwood
University	Bournemouth University
Title	Public Relations as a tool to suppress the working class?

This paper explores how Public Relations can be seen to suppress the working class, through dominant norms and values shown in media. This explores how the public may negotiate individual and group ideologies in response to constructed messages and readings that are maintained through manipulated media. This discusses how dominant groups in society are using Public Relations as a mechanism to retain their power and influence and examines the ways that this is done.

Informed by two Marxist scholars, an image of the working class being seen as passive and a manipulated audience will be discussed. It will explore what media platforms are being used by dominant groups to maintain the dominant ideology. This engages with Blumler and Katz's Uses and Gratifications theory in order to challenge the Marxist idea of a passive audience and suggest a different way of understanding audiences.

Drawing on a Marxist approach to critique power within a capitalist media this will bring examples from Public Relations and explore the potential effects on the working classes and how this contributes to maintaining social status for the dominant groups. This is motivated by the everyday use of PR communicating to stakeholder's certain messages or actions that they 'need' to follow. Offering an understanding into the engagement of the working class within Public Relations.







Author	Rock Shin
University	Bournemouth University
Title	Public opinions and fake news consumption through social media

A significant growth of mass media has led to its influential role as a source of information in contemporary society. Deeply ingrained in modern citizens' daily lives, it is an extensive carrier of news that increases their social capital, fostering civic activities and participation (Zuniga et al, 2012). In particular, online discourses are growing power and impact on extending public sphere, and forming public opinions (Dahlberg, 2001; Xiong and Liu, 2014). Among the variety of media choices, social media has firmly established itself as the primary go-to source for news information in today's society.

Along with this trend, what is equally emerging as an influential factor is use of fake news which capitalises on the effect of post-truth politics. Through a series of largely public engaging events such as the U.S election and Brexit, what has been proven pervasive is the active employment of post-truth news stories blatantly delivering misinformation (Ohlheiser and Dewey, 2016; Mortimer, 2016). Previous studies have postulated that emotional reception of such information results in biased formation of public opinions (Weeks, 2015). Meanwhile, distribution and sharing of the misleading news stories tend to be facilitated by platforms which are heavy with user-generated content, such as social media (Singh, 2016).

Thus, this paper offers a detailed understanding into the link between consumption of fake news and post-truth politics through social media and its impact on forming public opinions. It also delves into how social media acts as a tool to empower biased partisans, while marginalising dissents.





Author	Michael Sievenpiper
University	Southampton Solent University
Title	Gamified budgeting for managing household income

The current UK economic climate is leading households into debt. The rising cost of living and ination are resulting in households struggling with financial management. This has implications on quality of life and economic mobility. Early motivation for and the utilisation of financial management tools can alleviate the risk of spiraling debt. In this paper, we present the case for a gami ed collaborative financial management tool. We explain how current research has focused on individuals yet households often have shared nuances which would benefit from collaborative tools (Kim et al. 2011). We articulate the importance of motivation in financial administration by drawing on key literature (Bandura 1997).

Furthermore, we discuss the potential of gami cation to motivate households in the proactive management of nuances (Rocha Seixas, Gomes, and Melo Filho 2016). In this regard, we demonstrate the results of a mixed methods study to investigate the management methods used by households and case for gami cation in household financial management. Our initial survey findings indicate that gami cation of tools and feature elements for all household members will provide motivation for users. Further, our findings provide support for the use of educational tools and methods as rewards might improve motivation. We conclude that a gami ed collaborative finance management tool has the potential to motivate households and can help them to manage their finances and exposure to debt.





Author	Jack Silberrad
University	University of Leeds
Title	Resistance of hepatitis C virus genotype 3a isolates to direct acting antivirals

Globally more than 200 million hepatitis C virus (HCV) infections are specifically accounted for by viral genotype 3a (gt3a), contributing 43% of hepatitis infections in the UK. Predisposing infected individuals to aggressive development of liver cirrhosis and terminal hepatocellular carcinoma, gt3a is rapidly emerging as a leading cause of entirely preventable mortality.

Until recently treatment relied exclusively on combined pegylated interferon and ribavirin therapy, interfering with viral replication and triggering a non-specific antiviral immune response. Achieving viral clearance in a moderate 70% of patients through this approach is absolutely dependent on strict adherence to a 48-week treatment regime characterised by severe side-effects.

Highly efficacious 'once-a-day' direct acting antivirals (DAAs) Sofosbuvir and Daclatasvir now constitute the workhorses of gt3a treatment. With clearance in only 16 weeks and few side effects their development marks a new era of outstanding HCV treatment.

Using a treatment-naive genetic derivative of gt3a, this study identifies specific DAA resistance-associated mutations. Rapid and highly error prone replication enhanced intrinsic DAA-resistance, selecting for gt3a quasi-species that quickly evolved to overcome genetic barriers and maintain simulated infection throughout treatment.

Characterisation of clinically relevant resistance-associated mutations is crucial to inform patient-specific therapy and next-generation treatment design. With outstanding clinical efficacy, Sofosbuvir and other DAA resistance represent a real and serious threat to long-term treatment sustainability and patient recovery.





Author	Robert Sims
University	Blackpool and The Fylde College
Title	Within a flipped classroom, is an interactive application more effective than video based tutorials in promoting an understanding of conditional statements?

In 2007 two high school chemistry teachers, Bergmann and Sams, pioneered the flipped classroom whereby recorded lectures were made available to students to students in order that they could prepare or catch-up in the event of a missed class. Further research has since identified that a flipped classroom enables students to develop the lower order cognitive skills e.g. knowledge and comprehension; these are the two lowest levels of Bloom's Taxonomy of Learning Domains. In class activities subsequently concentrate, through active learning, on Bloom's higher order cognitive skills e.g. analysing, evaluation and creating. This contrast, where initial knowledge is traditionally imparted via lectures versus learning independently of the classroom, is the basis of the flipped classroom paradigm; however, recent studies have concentrated on defining the effectiveness of video tutorials only, rather than exploring the opportunities a broader range of technology offers to a flipped classroom.

In this ongoing study, an interactive web application shall be designed, developed and evaluated with a purpose of promoting an understanding of conditional statements, an essential element of nearly all programming paradigms. In order to determine whether an application or a video tutorial is more effective in a flipped classroom, a double blind study will be conducted that compares the developed application against industry standard tutorial videos such as those provided on Lynda.com.



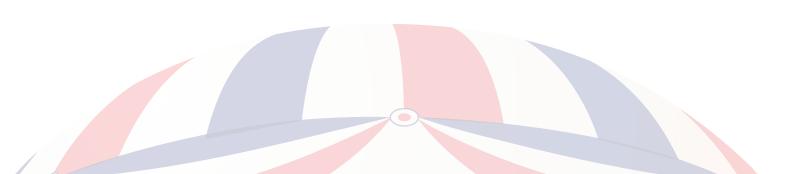


Author	Matthew Skellon, Edina Morris, Dr Eike Anderson
University	Bournemouth University
Title	Example-Based Generation and Automatic road and pavement modelling for the simulation of inhabited virtual environment

We present an effective method for example-based generation of realistic road networks, with automatic generation of 3D road geometry for the simulation of inhabited virtual environments. Example-based generation of road networks is currently in its infancy, and work on procedurally modelling 3D roads is limited, presenting extensive opportunities for expansion. To our knowledge there is no existing system that utilises structured representations of real world maps, such as data we employ from OpenStreetMaps. This is what our research aims to address.

Our system uses a custom parser to read map data in the OpenStreetMap format, our data source of choice, and then generates a realistic road network from that data by storing the nodes and vertices into a graph. We use this graph as the seed from which we procedurally generate first an extended road network and then a 3D representation of the road which is then output as a 3D asset in a common 3D model file format. The resulting file can then be imported into a user's 3D modelling software of choice, with the road network geometry modelled cleanly, including features such as intersections, roundabouts and multi-lane motorways.

Our method allows road networks to be created quickly using any area that a user chooses from OpenStreetMap, the original data is adapted to create a new road network providing a powerful tool to adapt real-life areas which could then be further developed for use in applications such as games and architecture.







Author	Magnhild Sletten, Karen Marie Mathisen, Juuli Vänni, Anita Diaz
University	Bournemouth University
Title	Do moose (alces alces) spend more time in areas of increased food availability created as a result of changed logging practices?

The Norwegian population of moose Alces alces causes huge financial loss to the logging industry each year by browsing on young pine Pinus sylvestris. There is currently a conflict between landowners wishing to manage for a small population and landowners wishing to manage for a large population, which benefits forestry and the hunting industry respectively. One solution that may benefit all landowners is to modify the number of moose in an area by providing increased alternative food sources.

This study investigates if moose will spend more time in an area where logging residues have been left in large piles to ensure that they remain above snow level, thereby providing a source of food in the winter. Trail cameras were used in control and experimental areas to collect data on i) total frequency of moose visits, ii) the duration of each visit, and iii) changes to behaviour concerning browsing, resting, and walking between experimental and control sites. Results indicate that the sites with increased food availability have a significantly higher frequency of moose visits, and that moose visiting the sites are more likely to browse and rest instead of just passing through.

The result from this study will inform management decision, and provide evidence that availability as a result of changes in logging practices can sustain a large moose population without increasing the damage to young pines.







Author C	Christoffel Quintin Smith
University <sup>B</sup>	Bournemouth University
Title Is	Is the Defamation Act restricting a claimant's access to justice?

The law of Defamation has seen recent reform through the Defamation Act 2013, which came into force in early 2014. The purpose of the new Act was to update the existing law to accompany modern developments in media by adding protection and regulations for operators of websites. The idea was to encourage openness and reduce the fear of litigation. The Act introduced new requirements, such as proof of 'serious harm' that a claimant now needs to show in order to have a successful claim. In addition, it now requires all trials to be heard by a judge, rather than a jury, allowing for more accurate damages. The reform has opened the area of law to considerable debate focusing on whether or not the new provisions successfully encourage freedom of expression, but at the same time have the effect of restricting a claimant's access to justice.

The aim of this research is to analyse the numbers of cases brought to court and the results of those cases to determine the full impact of the reforms introduced by the Defamation Act 2013. The analysis of the case law and on going debates have shown that the new Act, at first glance, has in fact seen an increase in the number of reported cases in its first year, with a drop of nearly 40% in the year that followed. In addition, the amount of damages awarded over £50,000 has seen an increase by around 112% from years 2013 to 2014, with a significant drop by around 41% in the year that followed. This research will examine the number of cases and awarded damages in more detail to determine whether the new Act has indeed been a much-awaited development in defamation law.





Author	Samuel Smith
University	Queen Mary University of London
Title	Understanding the structure and function of the CABLES2 protein

Proteins, encoded by genes, perform regulatory and structural functions within cells. CDK5 and ABL1 enzyme substrate 2 (CABLES2) is a protein of unknown function. During a one-year research project I will investigate the CABLES2 protein and the gene which encodes it. Little is currently known about CABLES2 but through inference from various studies on other related proteins the scientific community has established a few of its interactions that can help determine its structure and function in human cells.

As the name suggests CDK5 and ABL1 enzyme substrate 2 is capable of binding CDK5 and ABL1, two kinase enzymes that have been studied extensively. Comparison of CABLES2 structure with that of CDK5, ABL1 and the other molecules that they phosphorylate can help define the proteins secondary and tertiary structures and by exploring how these enzymes bind we may predict how CABLES2 folds.

Another point of interest in the study of CABLES2 is its relatedness to the more thoroughly researched CABLES1 protein. Though encoded on different genes in mammals, there is ancestral evidence to suggest that they belong to the same gene family and indeed differentiated from the same gene, likely from a duplication event that later mutated to encode a distinct protein product. The CABLES1 protein has similar interactions to CABLES2 and is documented to enhance phosphorylation of CDK5 which plays a critical role in neuronal development. By investigating the similarities with CABLES2 and how these proteins bind CDK5 it may be possible to implicate CABLES2 as having a similarly important role within the development of the nervous system and possibly link its aberration to disease phenotypes.





Author	Amy Solomons and Claire Turner
University	University of Leeds
Title	Female expertise in Eighteenth-Century medicine

Our paper explores the authorship of eighteenth-century domestic receipt books in order to illustrate how they engage with the themes of experimentation, dosage, and ingredients. The compilation of medical receipts in eighteenth-century England was related to the provision of medical care by women in their households, particularly in prominent estates. This area of study is interesting and valuable because it furthers our understanding of editing and authorship in texts compiled and/or written by women. Using archival material from the Brotherton Library, Leeds, this paper studies the receipt books of Sarah Jackson (1754/1755) and Anne Battam (1750/1759) in detail for the first time.

Our research reveals that more than one edition of each compilation was published, and discusses the significance of the disparities between different editions of these texts. For example, we draw attention to the agency of both readers and compilers, who took ownership of the receipts through encouraging experimentation, and modified the treatments based on their results. Combining statistical and textual analysis, this paper highlights the complexities of ideas of authorship, compilation and editing. Having studied these texts for the first time, we have approached historians in the wider community and shared our new findings. This means that historians and academics can refer to new material on the study of authorship in eighteenth-century receipt books.





Author	Friederike Sonnenberg
University	University College Maastricht
Title	Sustainability: as Lived and Practiced at Universities
Universities produce tomorrow's change-agents and as organizations, their responsibility to incorporate sustainability	

Universities produce tomorrow's change-agents and as organizations, their responsibility to incorporate sustainability into their practices becomes increasingly apparent. Research has been conducted on what university social responsibility (USR) and organizational transformation, entail. However, the question remains: how can universities navigate their organisational transformation towards sustainability and how can this be effectively achieved? This research is a contribution to and embedded in a participatory PhD research at ICIS-Maastricht University (UM) and its student-run sustainability department, the Green Office (GO). It uses Leuphana University of Lüneburg as one of three case studies of pioneering universities. The research aims at evaluating how sustainability is lived and practiced to develop new experiential knowledge of how to navigate pathways towards sustainability in UM's organizational structures. A qualitative methodology of embedded, insider academic research is taken through analyzing interviews from Leuphana and observing processes at the GO. Preliminary findings suggest that UM and Leuphana mainly vary in their approaches to sustainability and innovation in Higher Education. Leuphana used a top-down approach which merged into an embedment of sustainability and a lived ideology on all levels. UM works through its GO on a bottom-up approach which in this case leads to different obstacles. One of which is the disconnection between bureaucracy and practice. The research results in possible change interventions, such as increased staff involvement and the implementation of sustainability representatives, to strengthen efforts beyond student engagement.





Author	Amie Speirs and Errol Rivera
University	Edinburgh Napier University
Title	The usefulness of student derived feedback on teaching practices and any associated confidence changes related to the review process.

The reasons for conducting this project is to give students an insight into lecturers teaching practices and it gives them an opportunity to create and develop skills. The study also gives lecturers a unique student perspective surrounding teaching practices. Students as Collages is a research project at Edinburgh Napier University, focused on enhancing teaching practices. Students paired with lecturers review their partner's teaching practice, providing feedback. In previous years, thematic coding of transcription data emphasised "confidence of giving/receiving feedback" and "usefulness of feedback", driving the focus of this year's research. Participants will rate how confident they feel when giving/receiving feedback, and comment on perceived qualities defining good feedback. Lecturers rate the usefulness of the feedback given by their partner, and students rate their lecturers' engagement with the feedback. The data will be analysed using statistical analysis, and neither party know they are being rated, preventing social/professional pressure from skewing the data.



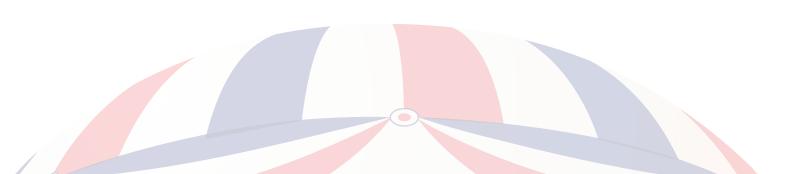


Author	Ellis Spiers, Anita Diaz, and Michelle Brown
University	Bournemouth University
Title	A buzz beneath the feet: An investigation of the variables affecting burrow and colony excavation in ground nesting bees and wasps on lowland heathland

The specialised life cycles of heathland associated ground nesting bees and wasps must be facilitated through heathland management. This is achieved by providing a variance in vegetation structure and bare ground, and leads to the floral and faunal diversity of heathlands. The research explored the question: to what degree do different variables influence the suitability of bare ground for nesting activity?

Nest activity at soil exposures was defined as the visible excavation and or occupation of Bee and Wasp derived burrows and colonies. A comparison of 37 paired nest activity and non-nest activity soil exposures was carried out across two Dorset National Nature Reserves. Variables recorded at each exposure were the exposure size, inclination and aspect, soil compaction, soil type, bare ground percentage cover of Heath star moss, surrounding vegetation diversity and structure, diversity and relative abundance of nesting bees and wasps, diversity of burrow types, total number of burrow holes, and a score of disturbance.

The findings indicate large, south facing exposures with moderately compact soils, gently sloping gradients, and the absence of Heath star moss are suitable for encouraging a diversity of species nest activity. In conclusion it is implied that providing exposures with a diversity of the discussed variables will yield the conditions required to target rare, endangered or threatened species of interest.







Author	Thomas Spencer
University	University of Manchester
Title	Genius in Retrospect: early medieval topoi and local identity construction in modern Hanzhong poetry
In the aftermath of the Cultural Revolution (1966-1976) there have been attempts to 'go back to roots' across China	

and rediscover the country's previously endangered cultural heritage, entwined with the redefining of what it means to be 'Chinese'. This paper examines the poetry of the Hanzhong, region in southern Shaanxi Province and how contemporary poets call upon early medieval topoi in their search for a distinct local identity. References to ancient figures and events with historical ties to the region, particularly from the Three Kingdoms (220-280) period, are used collectively by Hanzhong poets to assert their own identity in the late twentieth century's years of cultural crisis. This unique construction of a distinctly local literary world informs us of the role both literature and history played and continue to play in national and ethnic identity construction in modern China, highlights issues in the study of the cultural fallout stemming from the later Mao years and challenges views of macro-scale homogeneity in Chinese identity discourse.





Author	Melanie St John and Laura May
University	University of Lincoln
Title	Does Eye Closure Benefit Memory Recall of Visual Stimuli?

Eye witnesses are important in criminal investigations as they can provide crucial information about the event. The Cognitive Interview (CI) has been successful in aiding eye witnesses' recall for events, however, it has also been found to be time-consuming in both training and application. Previous research has found that asking participants to close their eyes increases recall for both correct and precise information, as well as decreases recall for incorrect information. The current study aimed to further support these findings. Participants watched a two-minute clip from a crime film and then were asked to freely recall as much information as they could remember within two and a half minutes. Using a between-participants design, participants were either interviewed with their eyes open and looking at a blank screen or eyes closed.

It was predicted that participants in the eyes closed condition would recall more correct details, more precise details and less incorrect details than those in the eyes open condition. The predictions were not supported as there was no significant difference between the eyes closed and eyes open conditions. This suggests that eye closure does not benefit recall and contradicts previous research findings. It is recommended that further research be conducted with suggested methodological amendments in order to provide a conclusion as to whether eye closure can benefit recall for witnessed events.





Author	Ben Steele-Turner and Jonathan Williams
University	Bournemouth University
Title	Is Kinesio Tape Effective at Enhancing Impaired Balance Associated with Chronic Ankle Instability?

### Background:

Chronic Ankle Instability (CAI) is common amongst athletic and non-athletic populations and closely associated with recurrent ankle sprains. Kinesio tape (KT) may be capable of enhancing balance, thus reducing ankle sprain risk, however to date no literature synthesis exists.

# Objectives:

To systematically appraise the literature and determine the efficacy of KT to enhance balance in CAI patients.

## Method:

A systematic search of databases; PubMed, Web of Science and mySearch tool in October 2016 alongside hand searching identified seven studies fitting the inclusion criteria. These were critically appraised using a modified Downs and Blacks tool.

## Results:

A total of 140 individuals were studied. Four studies determined KT was ineffective at enhancing balance immediately after application but two studies found significant balance improvements immediately after application. Widely used by clinicians as a prolonged intervention, three trials studied extended use of KT, all three found KT effective at enhancing balance. Overall, this review found conflicting evidence for KT as an intervention to improve balance immediately post-application. This review did find moderate evidence for KT at enhancing balance over a period of 24 hours to 7 days in recreational and athletic CAI patients.

### Conclusion:

Despite a paucity of high quality trials, results suggest that KT is effective at improving balance in CAI patients when applied at least 24 hours before physical activity. Future research should aim to determine optimal taping method and decipher to what level enhancing balance lowers likelihood of ankle sprain recurrence.





Author	Klaudia Sternik
University	Queen Mary University of London
Title	Investigating the relative performance of machine learning algorithms
The performance of machine learning algorithms when used in particle physics data analysis has been studied.	

High sensitivity is becoming increasingly necessary as we look for small signals in large data sets. Research at the Large Hadron Collider has unravelled evidence of new phenomena such as the Higgs Boson, however it is crucial to continue improving our methods so that no valuable data is omitted. Previous investigations in this area focus on general solutions that can be applied to many scenarios, as opposed to optimising specifically for particle physics data. Multiple algorithms, as well as optimal ways to tune them have been investigated through the use of simulated data. A measure of performance was established based on the Log Likelihood Ratio test. A comparison is presented of the expected performance of the studied algorithms in rejecting background data in searches for signals at the ATLAS experiment at the LHC. Preliminary results show Gradient Boosted Decision Trees to be more efficient than Support Vector Machines. Additionally, most BDT parameters don't significantly affect the efficiency.





Author	William Stocks
University	Bournemouth University
Title	Creating Procedural Texture sets of Hadrian's Wall for the Purpose of Archaeological Visualisation through the use of Substance Designer
Procedural texturing methods allow one to create accurate CG representations of real world surfaces whilst	

Procedural texturing methods allow one to create accurate CG representations of real world surfaces, whilst also giving one the ability to manipulate said surfaces after the texture files have been published. In a Historical Visualisation context, procedural textures give one a way of quickly mocking up work, and adapting textures to their needs, whilst also maintaining a level of physical historical accuracy. However procedural texture sets for visualisation purposes normally only contain the reconstructed or modern day version of a particular surface. With my innovative technique however, visualisers can now switch between versions of modern day and reconstructed textures within the same texture set, whilst also maintaining a high level of control over the end result. To illustrate my technique I have created a texture set that recreates the surface of Hadrian's Wall. This texture set allows one to see and manipulate both the original 120AD surface and the wall's modern day surface, and it gives users other manipulators as well - allowing one to have further control over their work. The level of control one can have means that the sets could either be used on their own as a way of illustrating surface change, or they could be used by a visualiser as part of a reconstruction of a Roman site.





Author	Peter Stott
University	Southampton Solent University
Title	Examining the generational effect on British football supporters' attitudes towards homosexuality
This coming tructured interview recorrely uses inclusive messulinity theory to from a stritudes towards how accuration	

This semi-structured interview research uses inclusive masculinity theory to frame attitudes towards homosexuality among 20 British male football fans from two culturally distinct age cohorts (18-25 and 45-60). Using Plummer's (2010) notion of generational sexualities, this research builds upon existing research evidencing positive attitudes towards homosexuality among youth. Specifically, it shows that over 90% of the younger cohort and 80% of the older cohort would support an openly gay player at their club. Moreover, approximately 90% of fans across both cohorts claimed that the level of play would have a significant impact on the reaction towards a gay player coming out. All participants also felt that homophobic language used inside football stadia is viewed differently to 'other' discriminatory chants, such as racism. Thus, this research supports inclusive masculinity theory in that it furthers generational understandings of attitudes towards sexual minorities among British football fans.





Author	Charlotte Stuart and James Fisher
University	Southampton Solent University
Title	Fatigue response in the Lumbar Extensors following dynamic exercise using High and Low-Loads between Males and Females

The prevalence of low-back pain (LBP) is increasing, and said to cause more global disability than any other condition. A growing body of research suggests that this is primarily a result of weakness in the lumbar extensor muscles.

The literature has suggested higher endurance levels in females compared to males, allowing them to withstand fatigue for a longer period. Though these gender disparities are well supported research is specific to muscle groups, and disparity in fatigue between sexes are less significant when load of resistance increases.

With the above in mind, the aim of the study is to compare the fatigue (measured as a decrement in isometric force) between males and females performing dynamic exercise at both high- and low-loads.

Using an isolated lumbar extension (ILEX) machine 20 asymptomatic participants; 10 males & 10 females, will complete a test of maximal voluntary isometric torque (MViT) at seven angles through a 72Ű range of motion. Participants will then perform dynamic lumbar extension exercise to momentary failure at either 50% (low-load; LL) or 80% (high-load; HL) of their MViT. Immediately following cessation of the dynamic exercise MViT will be reassessed to determine fatigue as a result of the exercise load. A control condition will also be considered where no dynamic exercise occurs between testing. The 3 conditions (HL, LL and CON) will be performed in a randomised order with no less than 72 hours between conditions.

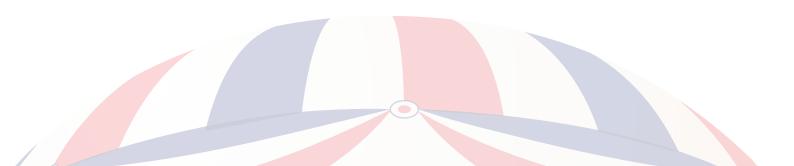
Analysis and results will follow along with a suitable discussion and conclusion based on the findings.





Author	Lewis Stuart
University	Newcastle College
Title	An investigation into the implementation of cyber security policy and procedures in the workplace
Cyber Security is a hot topic in the media with reports every day concerning new attacks. This project tackles the issue	

of internal Cyber Security in SMEs, specifically top level management and their attitude towards security. The research work that I have completed so far has been through the use of phone/in-person interviews. I will continue with this approach but I intend on including low level employees as well as managers. A lot of the companies I interviewed were worried that their security was not as strong as it could be and that they may be the next company to be attacked. Whilst most companies have a security polices or procedures in place, there is not sufficient enough support from high level employees, such as managers to make their overall strategy viable. This project outlines potential difficulties and problems in the workplace when adequate support from managers is not given.







Author	Hannah Styles
University	Bournemouth University
Title	Investigating how Tourists' Risk Perception and Decision Making Following Terror Attacks is Affected by Generational Factors
Enhanced security in major public centres, as well as the motivations of terrorists to maximise casualties, has lead to	

the hospitality industry becoming an attractive target. As a result the number of hotel attacks is increasing, affecting the different risk factors of destinations. This in turn results in tourists deciding to travel to alternative locations or to simply stay at home. This dissertation employs factorial design, which consists of two independent variables: the location and the tourist, and two dependent variables risk perception and willingness to travel. In particular, this study explores whether generational differences impact on the risk perception and willingness to travel. This will be analysed through the use of 4 scenarios: two for locations (a destination in Europe and North Africa) as well as two types of tourist destinations (city and a beach resort). The scenarios will be sent to various age groups and the results will allow for an increase in the understanding of how generational factors affect risk perception as well as how fear is place dependent.





Author	Victoria Swain
University	Southampton Solent University
Title	The new cyborg: contemporary representations of humanness through synths on-screen
This paper will explore the boundaries of humanness evident in the new cycle of cybora films that have recently	

This paper will explore the boundaries of humanness evident in the new cycle of cyborg films that have recently proliferated films within cinema and television programmes. The idea of the human-machine will also be critiqued as an allegory for the 'other' within society, and how the increasing acceptance of machines on-screen is a response to the migrant crisis, an issue that has become a significant contemporary societal concern. I will draw on a large body of critical writing to support my argument, and to situate and challenge these representations; ranging from key science-fiction genre theorists such as J. P Telotte (2001) and Annette Kuhn (1990) to theories of postmodernism and posthumanism from academics such as Daniel Dinello (2005), Sue Short (2005) and Chris Hables Gray (2002). I endeavour to clarify the terms cyborg, android, robot and synthetic/synth as there is much confusion over these terms in scholarship, resulting in them being used interchangeably. The discussion will be focused on Almost Human (2013-2014), Ex Machina (2015) and Humans (2015-) because these contemporary texts approach the theme of humanness in varying ways. Whilst the dominant discourse in cyborg cinema does remain technophobic, this paper will ultimately argue that a shift within these representations has begun to take place; a shift away from fear towards a form of acceptance, or even an embrace of new artificial intelligence technologies.





Author	Sarah Swanwick
University	Nottingham Trent University
Title	Student parents at Nottingham Trent University: An emperical study into attitudes, engagement and relationships with student support networks.

There has been a significant increase of parents returning to education since the Government's efforts to widen participation, as recommended in the 1997 Dearing report. (Bathmaker, 2003) Parents make up a small proportion of students at Nottingham Trent University. The exact amount of students is unknown due to the lack of data available.

Has the previous labour government and the institution (NTU) done enough to support an increase of student parents? This micro study into the lives of student parents, their attitudes and relationships with student support networks at NTU will raise questions on how the student parent engages with higher education. Following a questionnaire, in-depth interviews with current student parents at NTU will happen during 2017.

This empirical research will be combined with literature to present a holistic view on how and why student parents' access support networks whilst studying at university level. There is an overwhelming difference between the expectations, outcomes and attainment of the traditional and non-traditional student. Quinn (2010) suggest that student parents view university as a safe haven, a place to escape and a place to feel like oneself outside the family home. However, Brooks (2011) views a much bigger issue, she notes that student parents will always struggle with balancing University and family life due to the indirect discrimination that is embedded in higher education.

This report will question the importance of intimate support networks and analyse connections with the relationships between student parent and the establishment.





Author	Melanie Tang
University	Queen Mary University of London
Title	Elective antipathies - Friedrich Nietzsche's reading of Richard Wagner in human, all too human.

Friedrich Nietzsche's perceptions of the composer Richard Wagner and of the cultural phenomenon of European Romanticism remained inextricably linked throughout his creative life. This paper will investigate the fourth section of Nietzsche's Human, All Too Human (1878) - a work that marked the end of the philosopher's friendship with Wagner as well as his rejection of the Romanticism that Wagner endorsed, therefore bringing to light the pitfalls he saw them both sharing. Entitled 'From the Soul of Artists and Writers', this fourth section examines the role of the artist and the aesthetic experience in such a way that reveals a parallel, or interdependency, between Nietzsche's interpretations of Wagner, and of Romanticism at large.

Through close reading and analysis of this section of the book, I will suggest a particular understanding of the aesthetic principles that informed Nietzsche's fundamental criticism of both Wagner's music and Romantic art in general. This paper will discuss the ways in which Nietzsche viewed Wagner as symptomatic of a larger ill: the alleged 'superficiality' of Romantic art due to its excessive indulgence in emotionality. The paper will therefore also consider the ways in which Nietzsche saw this 'superficiality' to be reflected in society, and what part Wagner was to play in this cultural shift.





Author	Sarah Taylor
University	Bournemouth University
Title	Circulation Leg Exerciser for Wheelchairs

Physical exercise is considered to be very important to promote a healthy lifestyle. Wheelchair users may develop circulation problems due to sitting for long periods of time with limited access to exercise facilities. Symptoms of poor circulation include blood clots, leg pain, swollen feet and ankles, and leg ulcers.

The objective of this project is to encourage exercise and improve circulation for people who are confined to a wheelchair. Research has been commenced into people who want to improve their circulation and suffer from ageing, disabilities and illnesses including strokes, neurological conditions, and obesity.

The final design which has been chosen is a footrest for a wheelchair. The footrest provides a quick setup to motivate the user to exercise the legs by replicating the walking motion whilst the user is seated. The heal rise motion stimulates the calf muscle which pumps the blood upwards. The product has adjustable parameters to accommodate a range of heights and foot movements and it provides the option to gently exercise to improve circulation, minimise muscle loss and enhances comfort. It is also designed to be safe, easy to use, lightweight and durable.

The process consisted of market research, product design specifications, conceptual development, technical feasibility, and developing the final design. A physical model will be created to showcase the design. Besides the physical product outcome, it is expected that this project will contribute to raising the awareness of circulation related problems of people who have to be seated for long periods of time.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Nadinda Temenggung, Danielle Ropar, Richard Tunney, Fenja Ziegler
University	University of Nottingham
Title	The role of autistic and alexithymic traits in self-other decision-making

Previous studies indicated that typically-developing adults tend to make less rational decisions for oneself than for others. However, those with autism have difficulty distinguishing one's own perspective from another's, suggesting they may show greater logical consistency in decision-making across viewpoints. Reduced rational decision-making in typical adults was also argued to be due to a greater influence of affective processes for decisions made for the self. Therefore, we investigate whether logical consistency for the self vs. others correlates with perspective-taking ability (measured by presence of autistic traits) or affective processing (measured by presence of alexithymic traits) in a typically-developing population.

A within-subjects design was used to compare each participant's decision-making for themselves vs. others. 60 university students, recruited by convenience sampling, chose between a risky or safe financial decision (presented in different framings) in a number of trials on a computer program. They made decisions for themselves in one block of trials and for an unknown member of their peer group in another block, with the order counterbalanced.

We predict that autistic or alexithymic traits will predict logical consistency in self-other decision-making, with higher traits predicting higher logical consistency. However, those with high alexithymic traits should show greater risk-taking behaviour than those with high autistic traits. By testing whether different traits predict consistent decision-making for the self and other, this study elucidates the role of perspective-taking ability and emotion processing in financial decision-making for others.





Author	Dale Teobald
University	Plymouth University
Title	The Crime Law in History Project (CLiHP)

"CLiHP, the Crime Law in History Project, is an interdisciplinary research based project, involving students from Law, Criminology, and History, exploring the social history of crime and legal punishment. Originally having its basis in the Plymouth Crime History Project reviewing everyday offending in and around Plymouth with one student, the project now involves over ten students developing research based skills, providing opportunities for postgraduate studies, and experience in handling real history. CLiHP provides students the chance to work side by side with academics, utilising archives and online databases, as well as presenting research to the public at the ESRC Festival of Social Science, or through the Plymouth Law and Criminal Justice Review, the School of Law, Criminology and Government's online journal.

CLiHP is currently running projects in association with Bodmin Jail Museum, cataloguing and sourcing uncatalogued documents, and the South West Police Heritage Trust, interviewing retired police officers in preparation for the Devon and Cornwall's Police fiftieth anniversary of their amalgamation.

As student lead of CLiHP, I am also conducting my own personal research in association with Bodmin Jail, which entails investigating the possible connection between the extension of the Jail in 1847 by the architect George Wightwick, believed to be required to accommodate the admission of over twenty individuals convicted of offences relating to plundering after the sinking of a brig named Samaritan, 22 October 1846."





Author	Jordan Thomas
University	Southampton Solent University
Title	The Sound of Silence: The manipulation of sound in modern silent cinema

"This paper will explore how The Artist (2011), a French romantic comedy and La Antena (2007), an Argentine fantasy drama, adopt conventions of classic silent cinema and subvert audience expectations with a modern approach to their use or exclusion of sound. Sound scholar Justin Horton's The Unheard Voice in the Sound Film (2013) provides insight into the unique cinematic phenomenon of 'the voice out' in which 'characters are seen speaking but nonetheless go unheard' (2013, p.4) which provides a foundation for how sound can be manipulated in modern cinema, especially in contextual understandings of what 'silent film' is. By evaluating key scenes from both texts the effect that temporary or long-term silence has on the audience's experience of the film becomes apparent.

Michel Chion's The Voice In Cinema refers to silent film as 'deaf cinema' (1999, p.7) and engages with the concept of mute characters, suggesting the importance silent film has in terms of unintentional accessibility for a deaf audience due to the presence of intertitles which convey dialogue or sound effects via text. With very little scholarship about the lack of sound or deaf related cinema, this paper presents how modern silent films play with sound for a hearing audience, but still enable a deaf audience to equally experience the narrative. Concluding with the belief that sound is not crucial to a film's enjoyment or narrative cohesion, this paper suggests that while the screen may rely on sound to influence an audience; it is not crucial."

# BCUR17 25-26 April 2017 Bournemouth University



Author	Koh Thong
University	Queen Mary University of London
Title	Testing the influence of sampling resolution on ostracod-based palaeoenvironmental reconstructions in middle pleistocene lake sediments at Marks Tey, Essex
used to reconst ranges of ambie tocene sedimer Interglacial, a 4 interglacial. The olution ostraco the transition fr This research a Marks Tey by ev the 20m-thick l lent monolith s indicating a free	ells of ostracods, tiny aquatic crustaceans, are commonly preserved in Pleistocene deposits and can be truct past environmental and climatic conditions. Their narrow ecological affinities within well-defined ent habitat settings provide sensitive interpretations of salinity, temperature and other factors. Pleis- nts exposed in Marks Tey brick pit, Essex, have drawn interest as they overlie sediments of the Hoxnian 400,000-year-old warm period widely regarded as a good climate analogue for the present (Holocene) ey yield abundant fossil ostracod assemblages, offering promising potential for documenting a high-res- od record for a detailed reconstruction of local palaeoclimatic and palaeoenvironmental conditions during from a warm interglacial to the overlying cold glacial period. aims to aid palaeoclimatic and palaeoenvironmental reconstruction of the interglacial-glacial transition at valuating the significance of sampling resolution. Previous studies typically used 10cm-thick samples of laminated sediment sequence. One such sample was analysed and compared with results from an equiva- sub-sampled at approximately 1cm intervals, yielding a total of 3,000 ostracod shells from 10 samples, all eshwater lake environment. Fine-resolution sampling reveals detailed, palaeoenvironmentally-significant asemblage composition, undetected by coarse-resolution sampling. Ostracod-based reconstruction sug-

gests climate in the sampled interval was similar to today, but perhaps with colder winters."







Author	Dimitar Todorov, Xun He and Georgia Stubbs
University	Bournemouth University
Title	The relationship between dual attention performance and anxiety
Human performance to a visual stimulus is enhanced when attention is focused on the stimulus. Recently, asking	

two persons to carry out a visual detection task together (dual attention), He et al. (unpublished material) found a reduction in attentional effect when two persons attended to the same spatial location. However, it remains unclear how anxiety might play a role in this paradigm, given that human performance is enhanced by moderate anxiety and diminished by high anxiety. The current study investigates the contribution of anxiety to dual attention performance using the same paradigm (planned sample size N = 30). Each participant in a dyad performs a visual detection task while directing attention to one side of the visual space, which is either attended to by the other person (shared attention) or not (individual attention). The shared and individual attention conditions are implemented in two separate sessions which are counterbalanced in order. Before the first session, a questionnaire measures trait anxiety and state anxiety, the latter of which is also measured immediately after each session to the second. Data collected will be analysed with ANCOVA to demonstrate any mediating effect of anxiety on the dual attention performance. A correlational analysis will also be performed on the shared attention data to fully reveal the influence of anxiety. It is hypothesized that participants scoring high on the anxiety scale will produce stronger interpersonal reduction effect in the shared attention condition.



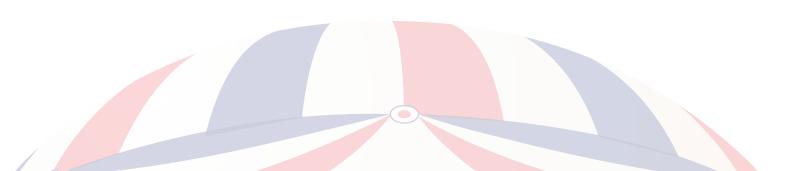


Author	Kalina Todorova
University	Queen Mary University of London
Title	What is theatre? What can it do?

"2015. Bulgaria. The population is melting. People leave the country in search of a better life abroad. Every year the country loses more than 30 000 of its habitants, for reasons such as the ongoing economic crisis, the low wages and the inadequacies in the education system. The majority of the migrants are young people. This fact brings forth the devastating implication that the future of Bulgaria is slowly crumbling. How can this tendency change? Can it be stopped? First and foremost, awareness must be raised. The theatre and cinema director Alexander Morfov offers a solution. He decides to stage his play On the Verge at the National Theatre in Sofia. But of course, as this is 'only theatre', it is not a tool powerful enough to influence the migration crisis. Or is it?

The production is highly emotional. In this paper I examine how this piece of theatre was created and what effects it sought to produce. It was performed by a strong cast of twenty- four people. Movements and the potentialities of human encounter, conflict and despair were choreographed precisely, creating an experience both illusive and real. The unusual, grand nature of the play gave a sense of urgency in the issue and sought to immerse its audience in it.

Is theatre therefore efficacious? Can it intervene in the social and political problems we face? Through this in depth analysis I will contribute to this debate."







Author	Oliver Townrow, Kieran Griffiths, Prashant Kumar, George E. Kostakis
University	University of Sussex
Title	Synthesis and Application of novel Zinc- Yttrium Coordination Clusters in Catalysis

Organic reactions are used in chemical processes every day to make common items such as medicines, fragrances and pesticides to name just a few. Improving the efficiency of organic reactions by using catalysts has many economic and ecological benefits, simply by lowering the energy needed to perform the reaction and reducing the amount of waste a chemical process produces.

We have recently synthesised and optimised a family of novel tetranuclear Zn2Ln2 coordination clusters, these are large molecules consisting of two zinc and two lanthanide metal centres held together with an organic ligand framework, and aim to demonstrate their efficiency as catalysts with applications in organic chemistry and drug design.

Here we present the application of two different Zn2Y2 (two zinc, two yttrium metal atoms at the centre) coordination clusters as homogeneous catalysts for Michael addition and Petasis- Mannich multicomponent reactions: two well studied and frequently used reactions in organic chemistry and drug design. All catalysts were characterised by single crystal X-ray crystallography, ESI-MS, elemental (CHN) analysis and TGA studies. Organic products were analysed via 1H-NMR, 13C-NMR, ESI-MS, Single Crystal X-Ray Crystallography and HPLC after column chromatography.

Improving the efficiency of these highly important organic reactions could substantially reduce the amount of waste produced in chemical processes, production cost and the overall carbon footprint.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Konstantinos Tsiolis
University	Canterbury Christ Church University
Title	Potential of European earwig as a biocontrol agent of pear psylla and as an antagonist of predatory anthocorid bugs in pear orchards.

"It has been suggested that the generalist predator Forficula auricularia L. (earwig) predates on Cacopsylla pyricola F. (pear psylla), one of the main pests of pear orchards in the United States and Europe. Although F. auricularia are abundant in organic pear orchards, farmers have been using Anthocoris nemoralis F. (anthocorid bug) for the biocontrol of C. pyricola. The purpose of this project is to determine if F. auricularia predate effectively on C. pyricola and if they interfere with introduced biocontrol agents by predating on A. nemoralis. A feeding trial was carried out under laboratory conditions to determine whether F. auricularia predate on the study pest and A. nemoralis, as well as field exclusion trials to show its effectiveness as predator in pear orchards. The results of the project show that F. auricularia predate on C. pyricola and very rarely on A. nemoralis too. The findings of this project could be useful for the pear industry as F. auricularia could be safely used alongside existing biocontrol (A. nemoralis) without damaging the biocontrol population. The combination of two predators will improve the suppression of C. pyricola. Furthermore, the results of this project could probably consider F. auricularia as a financially beneficial biological control agent, not just for the pear industry but also for many other horticultural industries.

Potential of European earwig as a biocontrol agent of pear psylla and as an antagonist of predatory anthocorid bugs in pear orchards.

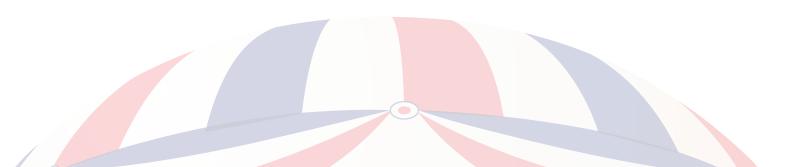
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Author	Oana-Corina Tuinea
University	University of Leeds
Title	Commercial banks and money creation
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A couple of clicks on Bank of England's website reveal that money in the modern economy is best described as endogenous. This paper aims to assess and situate Hyman P. Minsky's financial fragility hypothesis, and especially his understanding of commercial banking, into a wider endogenous structuralist framework. I thus attempt to explain why recurring instability within the financial system and changes in credit supply constitute a key premise for money creation as an endogenous process.



### **BCUR17** 25-26 April 2017 Bournemouth University



Author	Joanna Tung
University	Brighton and Sussex Medical School
Title	EBrain structure and joint hypermobility; relevance to clinical anxiety disorder

"Joint hypermobility is a common but often poorly recognised, life altering, connective tissue condition. Individuals with hypermobility are overrepresented among those with panic/anxiety disorders. Prior work at Brighton and Sussex Medical School produced imaging studies of joint hypermobility in healthy volunteers, observing differences in brain regions, notably enlarged amygdala volume. This novel study investigates structural brain correlates of hypermobility syndrome (HMS) in clinical anxiety disorder.

70 participants, were tested for associations between cerebral grey matter and HMS using voxel based morphometry of structural brain scans. Among the participants with clinical anxiety, their generalised anxiety disorder (GAD) was determined by the MINI (MINI International Neuropsychiatric Interview). The participants with hypermobility syndrome, scored 4 or more on the 'Beighton' score.

Comparison of grey matter volume revealed amygdala size correlated with hypermobility score in anxious patients, but there was no correlation in non-anxious individuals. It was also found that insula volume is increased in the anxious group for those with HMS. The study therefore for the first time implicated the amygdala and insula as a likely neural substrates mediating clinical relationships between HMS and anxiety. Participants also underwent tests of autonomic function and interoception to further extend understanding of autonomic abnormalities.

In light of these findings, future work in the department will include investigation of neural functional and structural connectivity; to gain deeper understanding into the neural mechanisms underlying these relationships.





Author	Kay-Alana Turner
University	Lamar University
Title	Ecotourism Business Owner Motivations for Obtaining Ecotourism Certification in Uaxactún, Guatemala
Ecotourism is a type of niche tourism focused on the environmental, socioeconomic, and cultural sustainability	

of a given destination. As a strategy to recognize and encourage effective ecotourism businesses, tourism experts around the globe began developing various programs that would monitor the sustainable practices of businesses. Through an examination of a range of practices, including hiring strategies and cultural preservation initiatives, certification reviewers determine the environmental and social sustainability of a given business. This ultimately determines whether the business meets the standards necessary for certification and receives a seal of approval from the program. Understanding how local ecotourism business owners view ecotourism certification is imperative to developing better programs, creating global standards for sustainability in tourism, and ensuring that true ecotourism businesses are recognized. This project explores the motivations that contribute to three ecotourism business owners' decisions to pursue or forgo ecotourism certification. Additionally, the project seeks to uncover the barriers these business owners have encountered in pursuing certification as citizens of Uaxactðn, Guatemala, a small community in the heart of the Maya Biosphere Reserve.





Author	Steven Turner
University	Bournemouth University
Title	Securing the Silver Lining: cloud security readiness for small to medium enterprise
ISecurity is a primary reason that businesses are not adopting the cloud service infrastructure model, with significant	

and bespoke investment needed to determine if existing security policies are cloud-ready. Without a better understanding of the standard information security characteristics of cloud infrastructure, the transition is hampered, over-complicated or simply cancelled. This paper presents a framework with which small to medium enterprise (SME) can compare current security policies, highlighting areas for improvement and change. The framework is derived using comparison between existing policy and public cloud infrastructure policy and evaluated within a case study of an SME.





Author	Maria van Veelen
University	Keele University
Title	Health Inequity in Ebola-affected Countries
The West African Ebola epidemic of 2014-2015 is considered to be one of the most significant health crises of	

the 21st century. Sierra Leone, Liberia and Guinea were the most heavily affected countries predominantly due to weak public health infrastructures contributing to widespread transmission. In the wake of the slow response from the international community, healthcare worker disparities, and the cost of treating international aid workers who contracted Ebola Virus Disease (EVD), did the Ebola crisis improve systems to decrease health inequity in the West African continent, or leave it with further challenges yet to come? Secondary data was analysed to compare healthcare resources and staffing in Sierra Leone, Liberia and Guinea before, during and after the Ebola crisis. The data format uses audience participation with a digital QR code that allows participants to interact with a randomising device to substantiate the impact of global health inequity. Review of the literature outlines clinical case scenarios of EVD-infected healthcare workers and the differences in healthcare staffing, funding and resources provided in West Africa compared to Europe and North America. The findings of this review have raised important questions regarding funding, resource and healthcare allocation before, during and after the Ebola crisis and have emphasised the importance of opening the discussion of health inequity across nations.





Author	Christopher Vicary
University	Plymouth University
Title	Investigating the effectiveness of neuropsychological testing on a dementia diagnosis in adults with mild, moderate or severe Down's syndrome

Adults with Down's syndrome have increased risk of developing early onset dementia. As part of the Plymouth Down's syndrome and dementia screening programme, adults with Down's syndrome are routinely screened for early signs of dementia. As part of this, tests of orientation, object naming, object memory and a carer questionnaire are completed on a yearly basis to detect decline over time.

Due to the extent of their intellectual difficulties, anecdotally some clients have consistently scored at, or just above floor in these tests making decline difficult to detect.

Therefore the current research investigated how often significant decline in testing scores predicted a dementia diagnosis to review the usefulness of measures currently used.

Over 10 years of data was analysed, and data from 18 adults with downs syndrome and dementia was used. They were categorised as having mild, moderate or severe learning disabilities. The level of decline in testing scores between baseline and time of diagnosis was analysed.

For the test of orientation only those with mild learning disabilities showed a significant decline over time, whilst individuals with moderate and severe learning disabilities remained at floor from baseline to point of diagnosis. For object naming, object memory and the carer questionnaire, all three groups showed a significant decline from baseline to point of diagnosis.

This suggests the orientation sub-test is only beneficial to those with mild learning disabilities. Other tests demonstrated sensitivity to decline over time, and thus of value in assessing cognitive function across all degrees of learning disability.





Author	Pauline Vila
University	University of Sheffield
Title	Characterization of chromosome partition protein interactions on DNA

Most bacteria, use ParA protein to spatially move apart or segregate chromosomes to daughter cells but little is known about how that is achieved. We hypothesize that Vibrio cholerae ParA binds chromosomal DNA in an ATPdependent manner, and this is thought to provide the energy required for chromosome segregation. To address this hypothesis, we combined multidisciplinary techniques from biochemistry and microscopy to study the molecular interactions. There are two parts to this project. First, gel shift assays were carried out to show how increasing concentration of ParB affects the binding of ParA to DNA with parS and non-parS sites. ParB is a protein that binds specifically onto parS site on DNA to form the partition complex and it stimulates ATP hydrolysis of ParA. Gel shift assays showed that ParB shifted the parS-DNA bands but not the non-parS bands, indicating that ParB binds specifically to parS. In addition, increasing concentrations of ParA super shifted the DNA or partition complex showing that ParA binds DNA regardless of parS site. The second part of the project involved using single-molecule fluorescence microscopy to directly visualize ParA binding to DNA. We planned to setup a prism-based Total Internal Reflection Fluorescence (TIRF) microscope which required some parts to be designed and made to mount the fiber collimator used for laser excitation. In total, three different parts were designed using the technical drawing software, SolidWorks and produced in aluminium. The parts have been installed and will be used for single-molecule fluorescence microscopy. This work contributes to a larger research activity of the laboratory that is to characterize the role of V. cholerae ParA in chromosome segregation.





Author	Stefano Vrizzi, Dr Guillaume Lajoie and Dr Adrienne Fairhall
University	University of Leeds
Title	Probabilistic framework simulating artificially-induced neural plasticity by a bidirectional Brain- Computer-Spinal Cord Interface
Recent development of Bidirectional Brain-Computer Interface (BBCI), neural implants that not only record single- neuron activity at precise spike-time resolution, but also stimulates neuronal sites, open the door to direct interaction with the dynamics of neural circuits in the brain and in the nervous system at large. Specifically, Bidirectional- Brain-Computer-Spinal Cord Interfaces (BBCSIs) are implemented to record motor cortex (MC) activity and stimulate spinal cord (SC) sites to promote rehabilitation following spinal cord injury (SCI). Stimulation aims to restore	

spinal cord (SC) sites to promote rehabilitation following spinal cord injury (SCI). Stimulation aims to restore disrupted pathways by exploiting Spike-Timing Dependent Plasticity (STDP) rules. In a probabilistic model that we numerically simulate, MC and SC were represented by excitatory and inhibitory neurons, which were recurrently connected according to set connectivity probabilities schematising the corticospinal tract (CST). We investigated how spike-triggered stimulation protocols changed mean synaptic strength of excitatory synapses through a simple multiplicative STDP rule. In different simulations we stimulated either a group of neurons in MC or SC, or both, after set delays from the time of spiking of a recording neuron. Results were consistent with previous computational and experimental findings. As we hypothesised, synapses strengthened between recording and stimulated groups, as well as between stimulated groups. We also explored SCI by testing a double-site stimulation protocol, finding that mean synaptic strength may evolve in time depending on CST connectivity. These simulations highlight the potential of a double-site stimulation protocol in eliciting plasticity along descending pathways.





Author	Sherin Wagih, Mahmoud Bukar Maina, Luca Biasetti and Louise C Serpell
University	University of Sussex
Title	Novel interactions between tau and nucleolar proteins in the brain: Alzheimer's disease vs. control

Alzheimer's Disease (AD) is the most common cause of dementia, causing a severe socioeconomic and healthcare burden, yet there are still gaps in our understanding of its development. It is characterised by the abnormal accumulations of amyloid-Î<sup>2</sup> (AÎ<sup>2</sup>) plaques and intracellular neurofibrillary tangles in the brain as well as neurodegeneration. In recent evidence, tau has been shown to localise to the nucleus, where it plays a role in protecting the DNA against cellular distress, in addition to the cytoplasm. Work in our lab has identified a novel interaction between tau and a nucleolar protein involved in the regulation of ribosomal RNA biogenesis -Transcription Termination Factor I-Interacting Protein (TIP5). To investigate the extent of TIP5 and tau interaction we studied their co-localisation in the nucleus, using human brain tissue from two stage VI AD and two control cases, treated them with different immunogold labelling and visualised them using electron microscopy. We report a significant (p<0.01) increase in the ratio and density of co-localisation of TIP5 with tau1 in AD compared to control. This suggest there is likely an interaction of TIP5 with tau1, within the nucleus and that this interaction is disturbed in AD. Ribosomal dysfunction in AD might therefore be attributed to the possible interactions of TIP5 and tau1 as TIP5 is involved in the repression of ribosomal gene transcription. Further study is required to corroborate these interactions and investigate the implications on the pathogenesis of Alzheimer's disease.







Author	James Wakefield, Tara Walker and Melissa Allen
University	Nottingham Trent University
Title	Is the rejection of pseudohomophones as non-words affected by the phonological loop being bypassed in visual word recognition, in a lexical decision task?

The aim of this study was to identify if the established theories of word recognition were reliable predictors in relation to pseudohomophones. We proposed to conduct an experiment which will provide a clear indication as to when the phonology plays a part in word recognition. To do this we proposed to use a lexical decision task Meyer et al. (1971). Comparing the speed of rejection of a non-word and that of a pseudohomophone. A pseudohomophone is a non-word that has the same phonology of a word e.g. FEAL, in this way it interferes with the phonological processing. The phonological loop as identified by Baddeley and Hitch (1984) in their model of working memory will be repressed by use of an articulatory repression task. This was an experimental type study with a 2 (articulated suppression and non-articulated suppression) x 2 (word type, pseudohomophones and non-words) within subjects design.

Interestingly the results suggest that Coltheart's theory may have misinterpreted the position and role of the phonology of a word in recognition and the order in which phonological processing occurs. The experiment has in fact managed to produce many questions that until this point were taken as correct. Importantly it has chipped away at some of the aspects of some influential theories in word recognition but at the same time supported other aspects







Author	Naomi Wakeman and Clare Killingback
University	Bournemouth University
Title	What factors influence walking aid use in older people? A qualitative literature review.

Background: Up to 35% of people over the age of 65 fall each year. Walking Aids (WAs) are used to prevent falls. Some older people may cease WA use when the aid is still required, increasing their risk of falls. The meanings attributed to an aid need to be understood, in order to determine whether an aid will be correctly used. Synthesis of the factors impacting patient engagement with their WA has yet to be carried out.

Objective: To identify the factors that influence WA use in older people."

Method: A search was carried out in October 2016 across five databases; CINAHL Complete, PsycINFO, SocINDEX, SPORTDiscus, SwePub. Eight papers met the inclusion criteria and were assessed for quality. Modified thematic analysis identified key themes across the papers.

Results: Personal, environmental and social factors influenced WA use in older people. The individual's attitudes towards WAs determined their use, with many participants reporting WA use to prevent falls. Availability of space was the most important environmental factor, with confined spaces often causing disuse. Participants planned WA use prior to outdoor mobility, having considered potential obstacles. Consideration was made to the perceived stigma of WA use, as well as the opinions of influential people in the participant's lives."

Conclusion: Healthcare professionals should not become desensitised to the complexity of accepting WA use. Continual improvement in community accessibility and WA design is required to promote WA use in active ageing. Future research should focus on understanding how healthcare professionals could facilitate WA acceptance.





Author	Joseph Walford
University	Queen Mary University of London
Title	Differences Between the Representation of Transport in Film in Brazil and Latin America.

Brazilian film has recently taken a turn from stereotypical, 'vibrant' scenes such as samba and carnaval, to more gritty, realistic representations of everyday life in Brazil for the working class. The most salient example of this is Cidade de Deus, set in a favela in Rio de Janeiro, however other films such as Linha de Passe (São Paulo) are realistic in their depictions of life for ordinary people. This study will address the use of transport in Brazilian film, and how it is used as a metaphor for social mobility. I will then compare this with the depiction of transport in Latin American film in general, using contemporary cinema such as BombÃ<sup>3</sup> n el perro (Argentina), Amores perros (Mexico) and Los viajes del viento (Colombia). Coming from a linguistic background rather than a film studies background, I have primarily viewed Latin American cinema as a tool for language learning. The difference in language led me to wonder if said difference can be extruded to more than just the vernacular; whether the difference in language creates a difference in representation of an aspect of film. I will use this approach in my research; watching and listening for mentions of modes of transport, the ensuing tone, and connotations of these mentions' are they seen as positive? Are users of certain modes of transport portrayed as pertaining to a certain social class?

I hope to find a distinction in styles of representation of physical mobility - that this distinction can then be related to social mobility in the wider realm of Brazilian and Latin American society, and show that ultimately there is a difference in the way transport is viewed in Brazilian and Latin American film.

# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Tara Walker, Lai-Sang Iao and Gary Jones
University	Nottingham Trent University
Title	Effect of sustained attention on statistical learning

This study sought to investigate whether the manipulation of sustained attention has an effect upon statistical learning.

Statistical learning is used to detect patterns in our environment. This plays a role in functions such as language acquisition and object recognition. Statistical learning is implicit, however attention towards materials may be necessary. Sustained attention is the ability to maintain alertness over time, and can be measured by requiring an individual to respond to frequent or infrequent targets.

To test the research question an E-prime experiment was administered that consisted of two phases; familiarisation and test. The familiarisation phase consisted of two conditions whereby 'monster' stimuli were presented in a triplet pattern that the participants were naÃ<sup>-</sup>ve to. In condition 1 participants were to respond (by pressing a button) upon the immediate repetition of a monster (infrequent targets), and in condition 2 participants were to respond to each stimulus unless it was an immediate repetition (frequent targets). The test phase consisted of participants giving a yes/no answer as to whether particular triplets had occurred during familiarisation.

The results showed that the manipulation of sustained attention did not have an effect on statistical learning. However statistical learning was above chance for infrequent targets, suggesting that continuously responding to infrequent targets may be a better way of sustaining attention for statistical learning to be effective. This has implications for learner materials in that the best way to induce statistical learning (e.g. when learning a language) is to incessantly respond to infrequent stimuli.





Author	Joseph Walton
University	University of Leeds
Title	Skin Barrier Function in Healthy Subjects

Effective skin care within clinical settings is vital to promoting and maintaining skin integrity thus preventing tissue damage. Skin integrity is closely associated with an effective skin barrier function that is found in the most superficial layer of the skin, the stratum corneum. Two key measures of skin barrier function are transepidermal water loss (TEWL) and stratum corneum hydration. Elevated transepidermal water loss and decreased stratum corneum hydration are characteristics of an impaired barrier function that could lead to tissue breakdown such as pressure ulceration (Kim et al., 2009).

Common skin care practices such as emollient application and washing with a skin cleaner are fundamental nursing procedures, which can have a profound effect on the skin barrier. Whilst washing aims to remove excess dirt and debris from the skin, it also has the ability to strip the skin of its protective functionality (Voegell, 2008). The application of emollients aims to restore this function, improving the skin barrier.

Despite the importance of skin integrity there has been limited research into the relationship between skin barrier function and pressure ulceration. This cross sectional study aims to explore the feasibility of the measurement of skin barrier function within healthy subjects; 30 participants will be recruited. TEWL and stratum corneum hydration will be measured before and after washing and after the application of an emollient. The study seeks to further the understanding of the biological underpinning of skin pressure ulcer development, skin integrity and skin care practices.





Author	Danny Ward
University	University of Reading
Title	A novel nanocompartment encapsulin protein in pyrococcus furiosus extremophile archaea

Compartmentalisation is a mechanism utilised by various prokaryotes for enzyme based reactions and toxic metabolite containment in an environment separate to that of the host cell cytoplasm. This is achieved by nanocompartment structures formed from characteristic protein shells with distinctive pore-like openings that allow for molecular transport in and out of the structure. These spherical bacterial organelles provide an excellent opportunity for synthetic and biotechnological applications with their ability to deliver medicinal drugs with a targeted nature and to act as bio-product factories'.

This research involves the investigation of a putative iron encapsulin nanocompartment shell protein (Linocin M18) within Pyrococcus furiosus [COM1] archaea by way of gene synthesis, genetic cloning, protein over-expression and genetic sequencing.

The 1050 bp Linocin M18 gene was successfully synthesised using GeneArt⢠with codon optimisation including a 5' Ndel and 3â BamHI restriction cut site. After confirming nucleotide conservation using genetic sequencing, the gene was cloned from its original pMA-T cloning vector into prepared pBADrha and pET21a cloning plasmid vectors. The pET21a Linocin was transformed into E. coli BL21(DE3) for over-expression, where IPTG activates inducible T7 expression leading to production of the Linocin M18 protein viewable via SDS-PAGE. The Linocin M18 protein produced was 345 amino acids (38.8 kDa) and was identified as a soluble protein with addition of B-PERâ¢. This research provides a prime pedestal for future research surrounding Linocin M18 which include iron-uptake analysis and structural visualisation via electron microscopy.





Author	Joseph Ward
University	Plymouth University
Title	Design Improvements to Increase the Resilience of Coastal Railways - Using the Dawlish Case Study

The purpose of this project was to examine whether design improvements can be made to coastal railways to improve their resilience by reducing the overtopping on a structure. This report uses the Dawlish railway sea wall as a case study and the structure modeled is a cross section of the wall reconstructed after the 2014 failure of the sea wall.

A physical model has been used to assess the effectiveness of the proposed design improvements including a beach nourishment scheme and a rock armour revetment compared to a control, which is the reconstructed the sea wall with 2015 beach levels.

Both the proposed designs, a rock armour revetment and a beach nourishment scheme, significantly reduced the overtopping during both wave conditions. With regards to the case study used, a recommendation for Dawlish would be a beach nourishment scheme, this is due to three main factors which are the overtopping reduction, cost and the importance of the beach to the local economy. However for railway coastal defences at locations where the presence of a beach is not critical, a rock armour revetment would be an appropriate solution to improve the resilience of coastal railways, due to the limited lifetime maintenance required.



# **BCUR17** 25-26 April 2017 Bournemouth University



Author	Benjamin Wareham and Whysnianti Basuki
University	Southampton Solent University
Title	Values and Entrepreneurial Intentions of UK University Graduates

It is widely acknowledged that greater levels of entrepreneurial activity, especially new firm creation, can spur on economic growth and development. The European Commission (2006) also stresses there is a positive relationship between entrepreneurship and economic growth, therefore, encouraging more university graduates to undertake entrepreneurship could foster economic development. Thus, the purpose of this research is to investigate the influence of values on university graduates' propensity to undertake entrepreneurial activity and the role of culture in shaping these values. This research would add to the body of literature which aims to help identify graduates entrepreneurial intentions and to what extent values influence these intentions.

Schwartz (2004) is used as the framework to measure cultural values. In line with other research in this field, entrepreneurial intention (EI) is used as a proxy for entrepreneurial behaviour; applying Ajzen's (1991) theory of planned behaviour (TPB). Close-ended questionnaires were employed to collect the data. These questionnaires were distributed to university graduates and 264 valid responses (a response rate of 9%) were used in the empirical analysis.

The results show that culture impacts upon El. Respondents sharing values associated with autonomy, egalitarianism and harmony were found to hold greater El. Additionally, these intentions were mediated through the antecedents of the TPB. The research suggests greater levels of entrepreneurial behaviour could be induced by fostering a cultural environment which emphasises values associated with autonomy, egalitarianism and harmony.





Author	Arron Watson
University	University of Reading
Title	Just how important is supplementary food to the success of the red kite reintroduction?
The Red Kite (Milvus milvus) was once extinct in many parts of the UK but following a successful reintroduction programme it has become a common sight in many areas of Southern England, the midlands, parts of Scotland and	

programme it has become a common sight in many areas of Southern England, the midlands, parts of Scotland and Wales. It was historically a bird associated with human settlements, scavenging on human refuge, and has now begun to recolonise urban areas because of widespread supplementary feeding by the public. In Reading, approximately 4.5% of households provide supplementary food for Kites and it has been found to be the primary factor explaining their use of urban areas. However, we have no understanding of the relative importance of anthropogenic food in the diet of Red Kites across the country. Here, we sampled naturally shed Red Kite feathers, which were collected by licensed volunteers at over 40 locations across the UK. Samples were cleaned, sub-sampled and analysed using a Sercon Stable Isotope Ratio Mass Spectrometer (SIRMS). The data were analysed using a Food Reconstruction Using Isotopic Transferred Signals (FRUITS) model, a Bayesian mixing model that provides estimates on the contributions of multiple sources towards a target. The majority of the feathers showed evidence of the Kites having fed upon food provided by people. Red Kites from close to Aberdeen were the main population not to show evidence of having fed upon human-sourced food. Given the results, we speculate that feeding may be occurring in areas outside of the Chilterns, but further work is required to confirm this.





Author	Katie Watson
University	Nottingham Trent University
Title	Improvements in studying the effects of light pollution on bat abundance and species richness within nature reserves
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In Europe, disturbance or modification of habitats and roosts due to development and urbanisation is arguably the biggest threat to bat populations. Lighting schemes can disrupt habitat connectivity through land loss and spatial exclusion of bats due to high illuminance, or indirectly by severing commuting routes from roosts. Nature reserves provide valuable foraging and roosting opportunities whilst connecting the landscape. The effects of lighting schemes on these sensitive areas has shown a causal link between low illuminance and overall increased bat abundance. The aim of this study was to examine how illuminance affects bat behaviour by (1) mapping this relationship; and (2) comparing the level of impact illuminance has in relation to other influential variables using an artificial neural network (ANN). Two hour transects of the three study sites were conducted monthly between April and September. Light readings were simultaneously taken along the pre-planned transect routes and used to create illuminance maps. Manually analysed sonograms determined the species or genera present and behavioural features (social, commuting and foraging) of bats. Bat behaviour radii were overlaid onto illuminance maps at each site, taking omnidirectional recording and light 'spill' into account. Collected data included abiotic factors, site age, woodland edge and other variables informed the ANN. Results show that development of the methodology is generating enriched data, and is identifying the challenges involved in mapping the relationship between bat behaviour and light pollution.





Author	Amelia Welch
University	Plymouth University
Title	Can constraints create opportunity?
Many successful manufaction duration, business should the outpand asigned have successed asymptotic states	

Many successful people in education, business, sports, the arts and sciences have overcome personal constraints to achieve significant accomplishments. Can such constraints lead to advantages that overcome the inherent disadvantages? Physical, cognitive or environmental limitations facilitate individuals to harness compensatory strategies and acquire alternative strengths. The aim of this paper is to research what techniques are employed by successful individuals with such constraints and whether these strategies can be transferred to people without similar constraints.

Education for students with conditions such as, dyslexia or Attention Deficit Hyperactivity Disorder (ADHD), is often inaccessible. Both the method of diagnosing these conditions and related pedagogic research often uses a deficit model however this approach is problematic as it negates the strengths of these students (Harry and Klingner, 2007). Students in higher education with ADHD have seemingly overcome educational barriers. This research will initially analyse how students with ADHD have been successful in getting to higher education. It will aim to identify the difficulties students with ADHD have encountered, the strategies and techniques used to overcome these barriers and particular strengths that have enabled a greater success. From this, the analysis will determine whether any strategies and techniques identified can be transferable to students with ADHD.

If the findings are significant then it will have implications on approaches to traditional learning techniques that can be enhanced to be more effective for people with and without learning difficulties.





Author	Marieke Wensveen
University	Utrecht University
Title	Human derived kidney progenitor/stem cells acquire functions of proximal tubule epithelial cells in vitro

Human kidney progenitor/stem cells (KPSCs) can be a valuable research tool in studying nephrotoxicity and renal regenerative strategies. Literature suggested CD133+CD24+ cells are dedifferentiated kidney cells, able to proliferate and differentiate into proximal tubule epithelial cells (PTECs), replacing the loss of PTECs in vivo. However, little is known about their ability to be used in replacement therapies. The aim of this study is to examine the function of human fetal derived KPSCs under different conditions. For this purpose, human fetal kidney cells derived from a 9-week embryo were cultured in either KPSC or PTEC medium. Fluorescence based functional assays and qPCR were performed at different sequential passages: P6-P10. Moreover, KPSCs were grown in matrigel to test the ability to grow into 3D structures.

The function of the efflux transporters multidrug resistance-associated protein 4 (MRP4) and permeability glycoprotein (P-gp) increases over passage, under the experimental conditions. Additionally, qPCR showed an increase in MRP4 mRNA, while a decrease was found in P-gp mRNA over passage. Breast cancer resistance protein (BCRP) mRNA was detected at low levels, while the function of BCRP was lacking. Conversely, qPCR detected markers from other kidney cells, such as podocytes. Moreover, growing KPSCs in matrigel and PTEC medium showed that KPSCs have potential to organize themselves forming aligned, tubule-like structures.

Hence, the CD133+CD24+ are not (yet) differentiated into a PTEC phenotype, while they show characteristics of PTECs. Since stem cells are vulnerable to external factors, slight differences can make them differentiate into another direction.





Author	Joseph Westlake
University	Bournemouth University
Title	An analysis of Spotify's use of personalisation strategies and their impact on building and sustaining customers' affective and continuance commitment.
Swedish organisation Spotify is the world's largest music streaming service (Murgia 2016), whose freemium business	

Swedish organisation Spotify is the world's largest music streaming service (Murgia 2016), whose freemium business model brings a new perspective to certain key relationship marketing concepts. This paper explores affective and continuance commitment in the context of Spotify's customer relationships. The personalisation strategies implemented by Spotify are analysed with reference to Morgan and Hunt's (1994) Key Mediating Variables (KMV) Model of Relationship Marketing, also incorporating Allan and Meyer's (1990) Three-Component Conceptualisation of Commitment, as well as other relevant literature on the topics of personalisation and commitment. These two areas of research are analysed simultaneously within the discussed context, leading to the proposal of a revised model encompassing Spotify's strategies of building and sustaining affective and continuance commitment amongst customers. The research supports the positive relationship between affective commitment and advocacy intentions, whilst further supporting continuance commitment's negative relationship with customers' propensity to leave. The research also brings a new perspective to relationship termination costs, proposing customers' valued, personalised content (e.g. their music library) forms part of the invested value into the relationship.







Author	Natasha Westland
University	Queen Mary University of London
Title	Analysis of expected data from the partial-fill phase of the SNO+ neutrino experiment

For particle physicists, the most difficult fundamental particle to detect is the neutrino. Ultra-sensitive experiments are needed to observe their low energy signals. One such neutrino experiment, SNO+, is shielded two kilometres underground in Ontario, Canada.

The SNO+ collaboration is in the process of upgrading the detector. At its heart is a spherical acrylic vessel with a radius of six metres. This is filled with a detection medium surrounded by 9,300 photomultiplier tubes which allow the observation of light from particle interactions. To increase detection sensitivity, the current water inside the vessel will be replaced with a scintillating liquid, enabling neutrinos with lower energies to be observed.

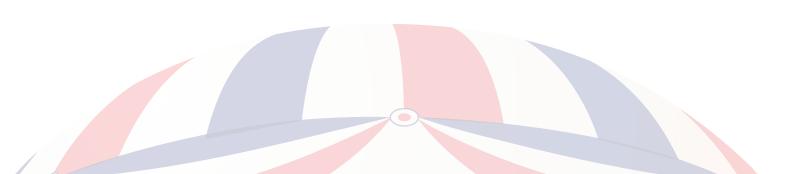
During the upgrade, there will be an interesting period of approximately 91 days where the experiment will be partially filled with both water and scintillator. The following research analyses software simulations of expected data during this phase, using an analysis framework called ROOT. The data consists of radioactive backgrounds from 238U and 232Th decay chains and low-energy solar neutrino signals (incorporating survival probabilities). The analysis will be presented in terms of photomultiplier tube hits, reconstructed energy and position, from which an expected daily response is determined. The tools developed in this analysis will help make the most of this early data taking phase and provide an opportunity to characterise the backgrounds and neutrino signals which can be expected throughout the next experimental stage.





Author	Jessica Whitehead
University	Bournemouth University
Title	To what extent is The Hunger Games consciously reflecting current societal issues, through the tropes it uses?
The focus of this research is the genre of dystopia, specifically in relation to The Hunger Games series. It explores	

The focus of this research is the genre of dystopia, specifically in relation to The Hunger Games series. It explores the way in which it utilises tropes to create messages that consciously reflect current societal issues. It's important in order to understand if and how social commentary was created within this series. The research in this dissertation includes an exploration into defining dystopia as a genre, both historically and contemporary, followed by the ways in which the themes found within this genre was portrayed in relation to The Hunger Games. Parallels were then drawn between portrayals of the fictional world and the real world. By looking into interviews from the author and the directors, this allowed a unique perspective on the motives of each individual. The findings from this research provide evidence that The Hunger Games appears to employ its tropes to create social commentary in an arguably conscious way. The way in which these messages are received by the masses suggests that many are unaware of them, yet the active protests and the conscious parallels drawn and understood by some suggest otherwise. It would appear The Hunger Games isn't warning, so much as expressing a need and desire for change conveyed through the tropes it uses. Whilst Panem isn't the current reality that we, the western world, face at this moment it is suggested that we must learn from the mistakes of the past and present in order to rectify the future of society.







Author	Michael Whitlocke
University	Bournemouth University
Title	Measuring squat asymmetry following Anterior Cruciate Ligament Reconstruction (ACLR): What can be learned from the literature?

#### Background:

Anterior Cruciate Ligament (ACL) injuries remain one of the most common sporting injuries. The goal of rehabilitation after ACLR is to return the athlete to pre-injury function. Studies have investigated symmetry of unilateral squat following ACLR, however less is known about bilateral functional asymmetry during squatting, a movement fundamental to many rehabilitation programs.

### Objectives:

To review the literature assessing bilateral squat asymmetry post-ACLR and to establish the most effect method of measurement.

### Methods:

A systematic search of SPORTDiscus, ScienceDirect, Environment, MEDLINE, British Library ETHOS and CINAHL was completed in November 2016. Downs and Black quality index was used to assess methodological quality of the included studies.

#### Results:

Six studies met the inclusion criteria. Three studies used force-plates to assess asymmetry in ground reaction force (GRF), one study used in-shoe sensors, whilst another used the Wii balance board. Four studies did demonstrate asymmetry of GRF, whereas one found no difference. In addition three studies measured joint kinematics and three studies investigated joint kinetics, of which they reported a decrease in peak knee flexion angle and an increase in hip involvement.

### Conclusion:

Asymmetry after ACLR is common and may present up to thirteen years post-ACLR. A combination of force-plates and reflective markers seem to be most effective at detecting this asymmetry and future rehabilitation programmes should aim to optimise bilateral limb symmetry to normalise function.





Author	Leo Wiggen-Bush
University	University of Chester
Title	Exploring how the detention of Palestinian children in the Occupied Palestinian Territories impacts child development
This research analyses the impact that detaining Palestinian children has on their education and social development. Palestine has been occupied by Israel since 1967. The Israelis repeatedly break international law with unlawful	

Palestine has been occupied by Israel since 1967. The Israelis repeatedly break international law with unlawful detention periods, interrogation practices and locations, whereby children are detained within Israel. Israeli military law, enforced on Palestinians since 1967, states an age of criminal consent of 12 years old. Using this military law as a premise, the Israeli military has detained 500-700 Palestinian children every year since 2008, with a total of 8000 minors being arrested and prosecuted since the year 2000. The literature from Palestine and other contexts shows various negative impacts of detaining a child, however little research has been done to date into how detention could impact on a child's development post-detention. This research examines the post-detention impacts in the context of Palestine, whilst exploring the ramifications of detention within international law. Personal accounts offer a historical context to child detention, providing evidence that it is endemic in Palestinian society. Open-ended questionnaires were administered in the West Bank with teachers, social workers and senior employees at the Palestinian exdetainee ministry. These were coupled with semi-structured interviews with a former UN employee from Gaza, and a former Palestinian student from Birzeit University. The primary research strongly evinces the psychological impact of detention. The developmental and educational impacts are detrimental, with the majority of children dropping out of school and becoming socially isolated from friends and family.





Author	Kiyumbu Wilkister
University	University of Sheffield
Title	The role of innovation in promoting social entrepreneurship- a GLOSS funded research

There is need to fill knowledge gaps about innovation hubs, especially with growing number of such organisations in Sub-Saharan Africa and globally, and their recognised significance in promoting social innovation. It is widely suggested that these spaces offer collaboration and partnership opportunities for entrepreneurs, social entrepreneurs, the wider private sector and governments. Our research aim was to examine the role of innovation hubs in promoting social entrepreneurship in Kenya using in-depth qualitative case study research in two innovation hubs - The Hub East Africa, and LakeHub which differ in their focus, location, and operationalisation. We conducted 15 face to face interviews with management and users of the hubs with questions informed by extant literature. Responses were transcribed and analysed by thematic coding.

We found that innovation hubs act as 'intermediaries' promoting social innovation and entrepreneurship mainly by filling 'institutional voids', enabling hub users to develop technical and business skills, as well as facilitating personal growth and development. Lastly, hubs assist users to build their networks and develop relationships amongst themselves and with varied external actors.

The strengths of innovation hubs were: prevalent intra-hub interaction within Kenya and across East Africa, usefulness in promoting wider impactful entrepreneurship, as well as fostering innovation and entrepreneurship in local communities. The weaknesses were informal and unstructured modes of operation of some of the hubs, challenges in developing sustainable business models, weak relationships with alumni and lacking social enterprise-specific activities.





Author	Annabel Willetts
University	Plymouth University
Title	Belief Bias In Logical Reasoning and Autism
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Belief bias is an inclination towards answering logical problems solely based on pre-existing beliefs. It is believed this bias stemmed from an inability to inhibit initial belief-based responses. Previous research observed less belief bias in people with Autistic Spectrum Disorder (ASD) than Control participants. Two possible explanations, that follow from dual-process accounts, for this are a difference between the populations in inhibitory control or in the contextualisation of belief-laden stimuli. Inhibitory control in ASD is thought to be less automatic and more strategically controlled. Secondly, ASD leads to a higher focus on details instead of using contextual cues. This study investigated whether people with ASD were affected differently by belief bias than a control group and whether any differences were best explained by a difference in inhibitory control or in contextualisation. Participants with ASD were given the Stroop test of inhibition and a lexical decision task, which tests their ability to contextualise, as well as syllogistic-reasoning questions. The reasoning questions were varied in believability and logical validity. It is predicted that this study will find that people with ASD are less biased by belief and that this results from enhanced inhibition of irrelevant beliefs, rather than from any reduction in contextualisation ability. These findings can be used to further explain how people make decisions when asked to reason logically with belief-laden materials.







Author	Jenna Williams and Rusha Saha
University	University of Leeds
Title	Validating the NHS PREDICT tool using patients consented to the Leeds Breast Cancer Now Tissue Bank

PREDICT (http://www.predict.nhs.uk) is a freely available web tool that enables the input of clinical data and tumour characteristics of breast cancer patients in order to see how various pharmacological treatments may affect survival. This study aimed to validate the tool using a dataset from 2 cohorts of consenting patients who donated tissue to a Research Tissue Bank; those under the age of 50 and those of any age with multi-focal disease. In previous validation studies it was noted that the tool gave less accurate predictions for younger patients. Since the release of the original algorithm an updated version has been released which claims to address this, however neither version is able to account for multi-focal patients.

In order to validate the model, we have begun to evaluate patient data from women who were diagnosed from 2010 – 2012 in Leeds. Their five-year PREDICT score will be compared with their survival status five years after diagnosis. For those under 50, we are comparing scores from both the original and updated algorithm; for those with multifocal disease, a score for each individual tumour will be calculated.

The results presented will illustrate the variation in the scores produced for multifocal patients, and it is hoped that this will elucidate a need to incorporate new parameters, such as multifocality, in to the PREDICT model. In addition, we aim to highlight the unpredictable nature of breast cancer in women under 50 and the increased difficulty in predicting mortality in this cohort. This study hopes to contribute towards improving the quality of information made available to women with breast cancer and aid in more informed decision-making.





Author	Tracey Williams
University	Manchester Metropolitan University
Title	Understanding the impact of the internet on the generation that has lived without it: An Interpretative Phenomenological Analysis
Media and technology are evolving at such a pace that they now form an intrinsic part of our everyday experiences.	

McLuhan (1964) suggests that each medium of communication produces social and psychological effects on its audience and involves a particular way of thinking. As such, the arrival of the internet and subsequent changes in the way that we connect with information and with each other, has given way to research on the possible effects of such changes. Psychological research in this area tends to focus on how the internet impacts on individuals' social, emotional or cognitive development and, therefore often takes a quantitative approach to studying these effects on children, adolescents or young adults. A unique opportunity exists, at this moment in time, to explore the experiences of the internet from the perspective of a generation who can report on their subjective experiences of life before – and after - the birth of the internet. In this study individual semi-structured interviews were carried out with 3 female adults aged between 45 and 50 years old. Each participant answered questions relating to the internet and the meanings that they attached to their experiences of it. An interpretative phenomenological analysis (IPA) of these interviews was then conducted to identify any themes. Preliminary analysis of the interviews revealed support for Blumler & Katz (1974) theory of uses and gratifications theory (UTC) across all participants, as well as individual themes including 'connectedness' 'nostalgia' and 'sense of loss'. Further themes and considerations are also discussed.





Author	Joseph Winer
University	Queen Mary University of London
Title	We need more naked women in our theatres: The Controversy of the Naked Body on the Stage.

Does the naked body have a right to feature on the stage? In 1968, theatre censorship was abolished. The following evening saw the opening of the musical 'Hair', famous for its controversial act one finale which saw cast members taking off their clothes. Nearly half a century later, nudity is more frequent on the stage, yet is still considered controversial. The last twelve months has seen a variety of nudity in performance: Katie Mitchell's 'Cleansed', Adam Reader-Bundle-Mahler's 'Trainspotting' and Jennie Darnellâ's 'Poppy + George', to name a few. Through analysis of the use of nudity in these productions, alongside others, this research explores the acceptability of nudity in different theatrical contexts, types of nudity with a focus on gender differences and the role of the directorâ's imagination in choosing to incorporate nudity within their production. Do we see more naked women than men on stage? Is nudity simply a way of shocking the audience with no real dramatic purpose? If nudity is just a part of the human condition, do productions need to warn their audiences if it is going to feature? Through this exploration, I aim to describe instances of how, when and why the naked body appears on stage, in relation to the wider controversy of gender politics, to ultimately conclude that we definitely do need more naked women in our theatres.





Author	Gareth Wintle and Dr David Leake
University	University of Reading
Title	The Macrophage lysosome; a chamber of secrets for atherosclerosis?
Various locations for low-density lipoprotein (LDL) oxidation have been proposed, including both intra and extracellular sites. Identifying this location is significant, since LDL oxidation is a key component of the pathological process of atherosclerosis; clinically manifesting as cardiovascular disease. Recent research has suggested that the	

process of atherosclerosis; clinically manifesting as cardiovascular disease. Recent research has suggested that the site of LDL oxidation is within macrophage lysosomes, with iron as the oxidizing agent. In the context of ultimately developing novel therapies for a widespread and devastating pathological process, corroboration of this lysosomal location is essential. Our research aimed to provide such corroboration by quantifying iron-induced LDL oxidation in the presence of various features which characterise the intra-lysosomal environment. High-performance liquid chromatography and spectrophotometry were used to quantify LDL oxidation by FeSO4 at pH 4.5, 37 ŰC and in the presence of cholesterol esterase (CE), trypsin or both CE and trypsin. We established that incubation of LDL with both enzymes resulted in an acceleration of the iron-induced LDL oxidation, along with an earlier onset of aggregation and sedimentation. This finding is clinically significant because oxidised LDL aggregation within lysosomes is thought to impair their function and provoke atherosclerosis. Our findings thus highlight the importance of the LDL oxidation pathway as an important target for drug development in the management of cardiovascular disease.







Author	Natalie Woods and Dr The Anh Han
University	Teesside University
Title	A comparison of fear or punishment and opportunity of reward in promoting cooperation within a non-binding agreement

"Agreements such as contracts are abundant in various human interactions that promote cooperative behaviour. Theoretical studies and behavioural lab experiments have shown that if agreements are binding, they can enforce cooperation. However, when these agreements are not binding or enforceable, such as a simple promise between friends or even international agreements, the social issue of free-riding on others' efforts is created which diminishes the cooperation of others in engaging in group ventures. This generates the possibility of 'fake' committers, who commit but then default on the commitment as they are non-binding. Therefore, little attention has been addressed in understanding the theoretical underpinning of what promotes cooperation in the context of a group interaction within a non-binding agreement.

To bridge this gap this project, undertaken as a first year undergraduate in partnership with an academic, examines two mechanisms; punishment and rewards by using computer stimulations and an extensive scenario based questionnaire. University students participated, made the decision in what truly motivates them to fulfil an agreement. As an implication of the results, it suggests that the use of rewards will ensure the success that is threatened by a free-rider. Interestingly, a combination of the mechanisms used are more effective in creating a fully cooperative society. These results can be relayed to all contexts as they provide insight to computer systems, organisations and advice to policy makers of international agreements."





Author	Laura Woolley and Robert Crow
University	Teesside University
Title	Evaluating the Impact on Community Well-being and Participation Through a Grow-Your-Own Project in Areas of High Deprivation in Redcar and Cleveland
As clobal population increases, significant changes have developed in consumption patterns leading to an increasing	

As global population increases, significant changes have developed in consumption patterns leading to an increasing demand for food stuffs and an upward rise in prices. The UK currently is 68% self-sufficient in foods that can be produced here (House of Commons, 2014), and the levels of self-sufficiency in fruit and vegetables have fallen over the years. With this in mind, 'Street Eatsâ', a Big Lottery funded three-year project was set up in 2015 with these aims: to improve access to fresh, seasonal and healthy produce, train people in horticultural and cooking skills, and to boost mental and physical well-being through practical gardening activities and social interaction. Teesside University are supporting the evaluation of the project led by Groundworks North East and Cumbria, who have allocated three growing hubs within target communities of high deprivation and low unemployment in Redcar and Cleveland. 'Street Eatsâ'strongly promotes utilising any possible growing space, from verges to back alleys and yards. The first year was evaluated by interviewing the leaders of growing hubs, determining long-term outcomes of the project by analysing public health data and by compiling a literature review on the beneficial impact of participation in community based growing projects. The evaluation was undertaken by an undergraduate researcher working in partnership with an academic member of staff. The researchers found that those with poor mental and physical health benefit hugely from these projects by providing education, regular social interaction and improving nutrition.





Author	Mustafa Yorgandji
University	Staffordshire University
Title	Can the techniques used to find a missing child be improved?

This project is entitled 'Can the techniques used to find a missing child be improved?' This project will discover if current techniques need updating.

The aim of this project is to find out whether or not the current search methods used by Police Force to locate a missing child can be improved. Techniques and methods used by the Police Force need to be updated on a regular basis due to change in many factors.

During this project the methodology consists of paper based research such as background research on past and current methods used by the police force. Background research includes reading and analyzing the current methods, such as the 24 hour waiting period before contacting Police, or methods such as the use of social media (desk based analysis). This research also includes finding out the percentage of children relocated using the current policing technique. Throughout this project the use of questionnaires and face to face interviews will be vital. By questioning current and ex Police Officers about search methods, an insight can be gained on the views of people within the Force, and whether or not they believe current techniques can be improved (and how). If the alternative hypothesis is accepted, the results will indicate that an update of techniques will be needed.







Author	James Young
University	Queen Mary University of London
Title	Queer Discomforts: Endurance and Empathy for the Other
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In my current research, I am using the format of durational performance to explore the queer body (one that is fluid in both gender and sexual expression) in discomforting states of endurance to measure the ability of performance to create states of empathy. Through performance, I explore the questions, 'Why is discomfort synonymous with a queer body? and, 'How can discomforting actions re-purposed through performance produce affectual and possibly empathetic environments?' This research intends to investigate the potentially contradictory nature that Jennifer Doyle explores in 'Hold It Against Me: Difficulty and Emotion in Contemporary Art,' where performance that is difficult to watch may produce that state 'where ideology does its most devastating work,' (p.xi) - through emotion.

Over a series of actions appropriating aesthetics of queer political funerals, I endure painful acts with my body that may be discomforting to watch, as I intend to form palpable discomfort. It's this state of disruption that I find most important, and I pursue this discomfort over a set period where audiences may come and go to allow for formulating questions about the material, exploring ideas beyond the discomforting nature of the actions that I do. Once the audience begins to perceive the semiotics of the visual elements of my performance, and starts to read into the queer analogies, empathetic understanding may be formed for queer identities out of this discomfort. My performance is not the solution, however, and it strives not to solve but to function as a window into understanding queer discomfort, a state where solutions may be found later.

### **BCUR17** 25-26 April 2017 Bournemouth University



Author	Andrej Zoric
University	University of Belgrade
Title	Research on District Heating Regulatory Regimes in Serbiaa

Student Economic Law Review is an online legal journal run by undergraduate students of the University of Belgrade Faculty of Law majoring in Business Law studies. As a first student-edited law review in Serbia it has strived to engage students as change agents in a society.

The main purpose of the research is to contribute to informing as well as educating the general public and end users about the system of district heating and possible ways of regulating it. This is a very important issue due to high inefficiency of the district heating sector in Serbia. Also, by introducing different models of regulation we are therefore, indirectly, strengthening transparency in future utilities policy changes.

The research on district heating regulatory regimes in Serbia started in January and was completed in December of 2016. First, the faculty member and editorial board members preselected the main materials for this research: selected studies, laws and local self-government regulations. The whole research was broken down into several smaller parts in order to be fit for a collaborative research project based on metacognitive problem-oriented strategies. The main areas where students provided output are Systems of district heating, Liberalization of district heating in a comparative perspective, Price regulation, Calorimeters, Protection of energy vulnerable consumer of heat energy, Voluntary exclusion from the district heating system and Forced exclusion from the district heating system.

We would like to share our experience not only regarding the issue of district heating regulation, but as well the organization of a collaborative research.

Our web page: www.selr.bg.ac.rs



### With thanks to the BCUR17 Organising Committee:

Gail Thomas, co-chair Luciana Esteves, co-chair Mary Beth Gouthro, co-chair Fiona Cownie Hannah Jones Jacqueline Priego Jamie Swanson Kerri Jones Maggie Hutchings Mark Covell Miguel Moital Philip Leahy-Harland Rachel Bowen Sam Taylor Sarah Green Xun He