

RESEARCH ABSTRACTS

MAKING A DIFFERENCE

RESEARCH, INNOVATION AND ENTERPRISE CONFERENCE 2018

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ORAL PRESENTATIONS

SOLACE

Mr Chris Patterson | Solent University

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Programme reference: R1

Project SOLACE (Solent Autonomous Circumnavigation of the Earth) is progressing and aims to attempt the first circumnavigation of the globe by an autonomous vehicle starting 2019. The craft under development is 2.4 metres long and is a high performance sailing vessel. The project is a cross-university venture and the project team comprises members from various schools and services lead by WSMSE.

NOTE: This presentation introduces a new/early stage research project and does not include a full proposal.

A software framework for automating the NERC long-range marine autonomous fleet

Dr Catherine Harris | National Oceanography Centre

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Programme reference: R1

As part of the Oceanids £10M Natural Environment Research Council (NERC) investment into Marine Autonomous Systems, we are developing an innovative web-based software framework to safely automate low-risk piloting tasks, such as calibration and transit behaviours, for the NERC fleet of long-range robotic vehicles. This will enable human pilots to supervise greater numbers of vehicles simultaneously over longer periods of time, increasing the scale of deployments we are able to perform and the delivery of oceanographic data for the marine science community. Focusing on the ongoing development of a proof-of-concept demonstration to autonomously pilot gliders in the North Sea given ocean current forecast data (work that will be evaluated at sea in November 2018), we will discuss the challenges of developing a robust framework for increased autonomy, including the need for the system to work alongside human pilots and meet all operational constraints of the deployment.

As part of the Oceanids £10M Natural Environment Research Council (NERC) investment into Marine Autonomous Systems, we are developing a command, control and data infrastructure (C2) to allow unprecedented near real-time data access and remote operation of the NERC long-range fleet of marine robotic systems. The fleet, which comprises submarine gliders, surface vessels and autonomous underwater vehicles, is available for use by the marine science community as part of the National Marine Equipment Pool.

Within the larger C2 project, we are developing an innovative software framework to automate low-risk piloting tasks, such as calibration and transit behaviours, allowing pilots to supervise greater numbers of vehicles simultaneously over longer periods of time. The server-based infrastructure provided by the C2 project will enable meteorological data and ocean current models to be used to inform autonomous decision making, whilst allowing pilots and scientists to maintain oversight and take control when required.

A key requirement of the automated piloting framework is to ensure compliance with operational and regulatory constraints at all times, keeping mission risk at an acceptable level. Consequently, we are initially focusing on the research and development of a robust mission verification system, which would prevent high-risk behaviours or invalid plans being sent to remote vehicles.

By enabling us to safely and reliably scale up the size and complexity of autonomous vehicle deployments, the autonomous piloting framework will aid the delivery of oceanographic data to the marine science community. The framework and wider C2 project will also enable robotics researchers to collaborate more effectively with us, testing novel control algorithms in extreme ocean environments.

We will present a discussion of the challenges of operating marine autonomous systems, the design considerations for the C2 automated piloting framework and example use-cases.

The Role of Bridge Simulator Training in Seafarers' Competency: A Comparative Study Between China and UK

Professor Shenhua Yang | Solent University

Co-presenters: Professor Minghua Zhao, Solent University

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Programme reference: R1

This Project introduces the definition and development of Bridge Simulator, and summarizes the literatures on the impact of Bridge Simulator on crew training at home and abroad, and identifies the gap in the existing knowledge in this respect. On the basis of first-hand data from the interview and questionnaire, utilizing the SPSS software to analyze the data, and evaluate the use effect of Bridge Simulator and then get the problems.

Real World Learning - Designing a Superyacht using Student Input

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Programme reference: R1

Staff and students from the yacht Engineering program were challenged last May by Hawk Yachts (Antibes) to develop a design for a 46 metre 'Go Anywhere' Explorer Superyacht for 12 guests and 10 crew. Giles Barkley assembled a team of 6 second and final year students to work full time for a month on the design challenge. This gave students valuable professional work experience. The team successfully produced a design, which Hawk Yachts loved, and is currently being showcased at the Dusseldorf Boatshow and their Brokerage.

The students worked as a team, under the guidance of two key lecturing staff Giles Barkley and Andrew Whittaker, both of whom have had previous industrial experience in designing and building this type of vessel.

The students were responsible for making many key decisions and design choices, as the vessel is aimed at owners close to their age, whom it is assumed has made their money in the dot.com industry, and hence they were more likely to know what owners would like to do and visit whilst on the Superyacht.

Students used commercially available software packages, to help speed up the process, and lecturers acted as project managers on behalf of Hawk yachts. Hence this work was as valuable as any summer placement could be.

The students stated they gained invaluable experience, and also saw their lecturers in a different role, which added value to their whole 'Solent Experience'.

Internally, this project was beneficial as it helped staff generate a useful project delivery methodologies close to that expected to be used in the new MSc Superyacht Design Degree, as well as gave staff a 'dry run' to see how far into the the design and development of the project students could achieve over a period of one month.

The design was enthusiastically received by Hawk Yachts. Staff met with them in Antibes and Monaco over the summer recess. It is also the intent of Hawk Yachts to invite the students over to Monaco soon, whereupon they will spend some time on a 100metre Superyacht, which is a huge bonus as these yachts are normally off limits and impossible to get on board and explore.

The vessel has since been refined alongside a local Naval Architect & Yacht Design company, Laurent Giles (a practice comprising of many SSU Yacht Engineering Graduates, of which one graduated in July 2017 and has worked a lot on this project) and is currently being showcased by Hawk Yachts at the Dusseldorf Boatshow (Germany) in the hope of finding a buyer.

Summarising, this presentation will outline the project as a whole, paying particular attention to both the student experience, the staff experience in running the project and showing how this will feed into the Masters Degree in Superyacht Design. It is hoped that students from the design team will also contribute to the presentation.

To vibrate or not to vibrate: affordances of vibrotactile feedback

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Programme reference: R2

Through handheld devices and other technologies, vibrotactile feedback has become essential on how we interact. Usually, vibrating feedback is used to provide confirmation of action within a system in order to 'fix' any limitations imposed through the hardware. Is there a wider understanding about the way we experience vibrations? Can we understand directions through vibrations alone or do we need to include other sensory feedback such as aural and visual? This interactive session aims to describe concepts regarding haptic guidance. Participants will take part in a short experiment to test if vibrotactile feedback has any subjective meaning to them.

The use of such feedback often becomes a gimmick feature of the electronics without necessary exploring and changing the nature and capabilities of vibrotactile feedback. For example, vibrotactile feedback does not require the user to change focus to receive the information as it happens with visuals and can provide a wide range of different 'buzzes' as well as complex rhythmic patterns. In addition, information can be adjusted to the individual needs and even used to communicate and interact. This immediacy of vibrotactile feedback allows new creative approaches for systems to emerge that would otherwise be limited by aural and visual feedback.

Can we assume a universal understanding about the way we experience vibrations? Do we have the same vibrotactile experience with others in a similar way as we do when listening or looking. Can we understand directions through vibrations alone or do we need to include other sensory feedback such as aural and visual?

This interactive session aims to describe concepts regarding haptic and vibrotactile experience. I will present some common characteristics of vibrotactile feedback and open discussions related around usability and applications. Participants will take part in a short experiment to test if vibrotactile feedback has any subjective meaning to them.

What is Cultural Research at Solent?

Dr Toby Bennett | Solent University

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Programme reference: R3

This discursive workshop invites individuals from both inside and outside the university, with a stake in “cultural research” (broadly defined), to forge its future at Solent. We will reflect on the 2017/2018 Cultural Research Seminars, as well as other related activities, to discuss where we are going next: to continue developing a vibrant, intellectually stimulating and interdisciplinary research environment, connecting internal expertise to contemporary debates, grounded in the urgency of local needs. Ideas for intellectual topics, workshops, film screenings, reading groups, network-building, or more pragmatic matters that would shape future activities, will be very welcome. You do not need to have previously attended the seminar series to participate.

The academic year 2017/2018 has inaugurated a Cultural Research Seminar series at Solent. These seminars have invited academics to present their current research. Curated to speak to pressing concerns at Solent, topics have included mental health in music industry careers, local culture-led regeneration, arts activism and gender in film screenwriting. Seminars have sought to keep staff informed of current debates, provided a forum for internal and external networking, as well as engaging prominent members of local cultural practitioner and policy communities. They have spurred research collaborations, informed teaching, and reflected on pathways to impact. There is a need to learn from and to develop this initiative.

At the RIE conference, a discursive workshop session will invite individuals from both inside and outside the university with a stake in “cultural research” (broadly defined) to forge its future at Solent. We will reflect on activities and achievements to date: what worked, what didn't, who and what should have been part of the conversation? More importantly, we will consider where we are going next: to continue developing a vibrant, intellectually stimulating and interdisciplinary research environment that connects internal expertise to contemporary debates, grounded in the urgency of local needs. Ideas for intellectual topics, workshops, film screenings, reading groups, network-building, or more pragmatic matters that would shape future activities, will be very welcome.

Those who have previously participated in the seminar series (internal and external) will be invited to feed into the conversation - but prior attendance is not necessary for this workshop.

Myo Mapper: a Myo armband to OSC mapper

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Programme reference: R4

Myo Mapper is a free and open source cross-platform application to map data from the gestural device Myo armband into Open Sound Control (OSC) messages. It represents a 'quick and easy' solution for exploring the Myo's potential for realising new interface for musical expression, and for facilitating applications where hand gesture recognition through machine learning is required. This paper also reports applications in which Myo Mapper has been successfully used, a qualitative evaluation, and a series of guidelines for using Myo data in interactive artworks. Findings show that Myo Mapper empowers artists and non-skilled developers to easily take advantage of Myo data high-level features for realising interactive artworks.

Through the commercialisation of EMG sensing technology and low-cost fabrication, EMG-based interaction has become available to artists interested in creative applications using physiological interaction.

The Thalmic Labs Myo is a multi-modal gestural input that includes eight EMG sensors and an Inertial Measurement Unit (IMU).

Factory software provides us with a pose-recognition algorithm able to recognise five hand poses, and different applications to gesturally interact with different applications such as Power Point, VLC, Spotify, Adobe Reader.

The Myo has the potential of making biosignals accessible to artists; nevertheless, no easy-to-use application empowers non-skilled developers to access Myo data.

Myo Mapper has been designed and developed as a solution to this problem. It is an application that enables to extract and stream of raw data to third-party audiovisual interactive software through a simple graphical user interface (GUI).

Furthermore, Myo Mapper gives access to an easy-to-use Myo calibration process, data scaling, data features extraction, and communicates via OSC with interactive machine learning software such as Gesture Recognition Toolkit (GRT), ml.lib or Wekinator for the recognition of hand or arm gestures.

In this paper, I present a detailed description of the architecture and implementation of the system. I then describe different case studies in which Myo Mapper has been successfully utilised in musical, dance, robotics, VR and gesture recognition applications.

I will report results from a qualitative evaluation of users feedback collected through the software developer, Git Hub and Sourceforge websites.

At the end of the presentation of this paper, I will do a demonstration where Myo Mapper is used to training a machine learning model which result will control audio processing parameters.

Exploring Mental Health of Level 4 Students

Dr Mark Doyle | Solent University

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Programme reference: R5

Student mental health is an increasingly important concern for staff, students and those involved in managing distress. Evidence suggests that individuals who have experienced considerable adverse life experiences such as childhood trauma will be much more vulnerable to poor mental health. Moreover, they are likely to have lower levels of resilience compared to those who have not experienced childhood trauma. Evidence also suggests that those individuals who experience childhood trauma are more likely to experience adult trauma. This research will explore the relationship between resilience, trauma, loneliness and mental health of level 4 students. The study will be aiming to follow these students throughout their degree to track their mental health and trauma experiences using a longitudinal methodology.

Fashion as Community Week

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Programme reference: R7

This interactive session will outline outcomes of Fashion as Community Week, an event which covered the themes of sustainability, well-being and social good; to demonstrate how fashion could use its tools of design and communication to engage the community. This brought together staff/students from different fashion courses at Solent University, local community and fashion industry. This session will discuss and show examples of how using action as research can encourage opportunities to share perspectives. On display will be examples of how this resulted in work-based learning opportunities, bespoke activities, unique collaborations and outcomes that crossed over to use different methods, widening conversation and practice. A Q&A will provide tips within how to co-create, use cross-disciplinary and participatory events around selected themes to inspire change and engage a community together.

Fashion as Community Week was curated and organised by Fashion Lecturer: Rachael Taylor, during January 9th-11th January in the Herbert Collins block. The students, staff, local community and selected speakers from the fashion industry were brought together to engage in conversations and activities that discussed and practiced how fashion could be used for sustainability, social good and well-being. This enabled a unique opportunity to share knowledge and perspectives on these themes and resulted in bespoke collaborations, new partnerships, workshops, installations, presentations, pop ups, and an exhibition; which all resulted in furthering a continued interest within these themes. The interactive session will show the different aspects of using a multi-disciplinary and collaborative approach towards creating the event. Which included an Exhibition in the Concourse of Foundation Art and Design Students Upcycling Project and one off upcycled pieces Level 6 Fashion Design student Harry Odell. A pop-up Fashion Charity Shop which used donated fashion and accessories and raised monies for local women's charities. Talks from Beatrice Pants Project, TRAIID (London) questioned if the Fashion Industry could be sustainable? Cat Fletcher discussed how to understand waste resources and Georgina Hooper engaged an audience with textiles repair and mindfulness. An ex-student Eco2Wear, local designer and Southampton Alumni graduate (2007) discussed their design process and showed techniques for upcycling. Hugh Greasley, a local artist delivered a poetry workshop to respond to sea pollution from plastics. The local business Ellen MacArthur Foundation discussed their new Circular Fibres initiative to encourage future designers to think circular. Staff and Level 6 Final Students discussed their research projects that related to the weeks themes. To conclude the week was a Panel Debate on How Can Fashion and Design engage and enable communities in sustainability, social good and well-being? The panel speakers Fashion Revolution which is a global movement calling for greater transparency, sustainability and ethics in the Fashion Industry. Tony Credland: is a Lead Tutor on MA Graphic Design at LCC and an independent designer specialising in print for clients such as Channel 4 & 5 and media projects such as London Indymedia and Reclaim the Streets and continues to be active in grassroots politics, they both combined art and fashion perspectives to discuss solutions. Other projects that evolved within the curation of the event included creating unique partnerships between students and staff, Christine Hammond and Stella Pieseka collaborated to produce a series of textiles that related to both their research. Alex Noble and successful re-use designer created a unique film as his response to the panel debate and as a resource to share with the students. The event also provided an opportunity to create work-based learning for 6 Level students across the courses of Fashion Styling, Fashion Photography and Fashion Promotion who worked together to collate content of the event and within the set-up of the Charity Shop. An extended outcome of this project is within turning this information into a publication to act as piece of co-created work for the work-based learning students, promotion for the University and research source for a wider audience.

Transparent Boundaries

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Programme reference: R9

Where are the older people and why doesn't society recognise their presence more in popular culture? The demographic in developed countries is one of an increasing, and increasingly, aging population. Societal attitudes to the elder differ from culture to culture, but in many countries there is an almost total non-representation in the media, except when problems occur. This Paper will describe the project Transparent Boundaries in which five organisations from the UK, Denmark, Greece Italy, Poland collaborated in a project using a unique combination of craft, design and performing arts to create a place and space for dialogue and a new kind of visibility of the Elder.

Transparent Boundaries, a European Culture Programme project, explored the visibility and voice of the Elder in contemporary Europe through creative dialogue informed by knowledge exchange.

The University of the Creative Arts (UCA) were Lead with partners from Greece, Italy, Poland and Denmark representing other universities and cultural development organisations. The project sought to critically engage with the role and perception of the Elder in contemporary European society: to explore how the Elder is understood, to embrace the Elder as a growing and vital contributor to society, and to demonstrate the value of arts and culture for progressive identities and inclusive communities.

Through knowledge exchange in the form of interdisciplinary practice, including the visual arts, dance, poetry and design; and via a committed approach to dialogue and partnership; the project made a critical intervention with important implications for how we value the Elder and how arts and culture give us the means to express value in evocative and engaging ways.

The outcomes of Transparent Boundaries reflect the process of dialogue and engagement and identify a set of learning points which can inform and reshape how we understand the Elder and how we mobilise arts and culture to improve intergenerational and intercultural practice in Europe.

The project explored new types of cultural production through knowledge exchange and delivered a set of key learning points beyond the academy: for individuals, institutions, the sector, for society. It encouraged new ways of working for artists and organisations - combining traditional vernacular techniques, multi-disciplinary teams and international collaboration - providing individual and institutional learning for all those involved. Particularly how a combination of workshops, international collaboration and partnership, can fuel innovation and experiment.

Transparent Boundaries focused on cultural awareness: of the Elder, the role and power of arts and cultural practice in engagement and empowerment, and on intercultural collaboration. It represented a concerted attempt to interrogate how under-explored and under-appreciated cultural forms can be made relevant to new generations and illuminative through cross-boundary collaboration and partnership.

Questioning preconceptions about the potential and role of the of the Elder as an active and vital participant with an untapped potential to contribute knowledge, experience, happiness and more to society, has been central to the project. This includes demonstrating that active participation is an excellent way to raise awareness of the individual and societal challenges that The Elder face.

Transparent Boundaries built upon my research concerning the inherent structure of lace net-works as both a metaphorical and actual means of questioning the solidity of arbitrary boundaries between 'us' and the 'other' (Rendell.2006:167) and the linking qualities of net-works (Millar 2011). The project which was the funded by The Culture Programme of the European Union. It was a direct response to the Ex-Ante Evaluation (COM (2012) 462) of the European Parliament and Council's decision to promote mental and physical well-being in the older age by increasing public sensitivity and stimulate active debate.

Bruce Robertson and Diagram: innovations in information design

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Programme reference: R10

This presentation will explore the design methodology behind the diagrammatic work of the book design and packaging company Diagram Visual Information Ltd. and its co-founder and managing director of over fifty years Bruce Robertson (1933-2014). Robertson forged Diagram into one of the most prolific creators of visual information books in the later twentieth century. Diagram consisted of a cooperative group of designers, writers, artists and editors who in 50 years produced over 75,000 pages for more than 500 book titles in the pre-digital age. To date, Diagram books have sold over 9 million copies in 207 countries and are printed in 55 languages.

In a pre-digital age, when knowledge was usually found in libraries and home encyclopaedia, book design and packaging company Diagram Visual Information Ltd. and its co-founder and managing director Bruce Robertson (1933-2014) forged Diagram into one of the most prolific creators of affordable visual information books in the later twentieth century. Diagram consisted of a cooperative group of designers, writers, artists and editors who in 50 years produced over 75,000 pages for more than 500 book titles. To date, Diagram books have sold over 9 million copies in 207 countries and are printed in 55 languages. This presentation will describe the innovative design methods that Diagram used to simply condense huge amounts of factual information into memorable, concise graphic forms, using examples from their expansive body of work and in particular their acclaimed sports comparisons titles.

Robertson took his business inspiration from Wolfgang Foges (1910-1986) a pioneer of book packaging in the UK, who set up Adprint in 1937 (later Rathbone Books and then Aldus Books) with the aim of printing large quantities of books and overprinting different language versions in black, enabling them to be sold on in many editions. By pooling resources and collaborating with many partners Foges was able to handle large print-runs making his books attractive and economical to sell on to both UK and international publishers. This is the model that Diagram adopted and developed as did other precursors of modern day book packaging such as Thames and Hudson, Mitchell Beazley and Dorling Kindersley.

Notable Information designers have cited Diagram as being innovative and influential in information design with various works said to have created 'a new style benchmark' and 'a new kind of informational book' in overviews of the field.

Dr Sue Perks is Subject leader in MA Graphic Design at University for the Creative Arts in Epsom, Surrey, UK. She is an information designer, writer and researcher specialising in the legacy of the principles of Isotype.

David Lambert is a prolific award-winning writer and editor who has written more than eighty books for children and adults, many on science, natural history and prehistoric animals. He worked with Diagram for many years and was a personal friend of Bruce Robertson.

The Internet of Clothes

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Programme reference: R11

The project is an Internet of Things concept that seeks to address the problem of over-consumption of clothing. It is a connected wardrobe in which items of clothing will message the user each day asking to be worn. The selection will be made by contextual factors including the season, predicted weather that day, frequency of wear and when the garment was last worn. If items are ignored they will automatically offer themselves to charity or other wardrobe users for re-use. It considers the question of how a connected wardrobe change the consumer relationship with fashion?

We are consuming clothing four times more than we did 20 years ago. Driven by trends such as fast fashion, over-consumption has created challenges around sustainability and ethical manufacture of garments. In short, we need to own fewer clothes. Whilst studies have identified a desire from many consumers to reduce consumption and wear more sustainable garments, lack of information and a fashion industry focused on high consumption has made that difficult to achieve.

The Internet of Clothes is a connected wardrobe that encourages more efficient garment usage through a collaborative network, to reduce consumption and improve sustainability. Tagged using an RFID system, a cloud-based learning algorithm makes wearing suggestions to the owner based on contextual factors such as the weather or last usage. If they are ignored, the clothes will automatically offer themselves to another user in the network, or contact a charity for re-use.

The principle aim is to use the Internet of Things as a means to change the user relationship with clothing, moving away from a high consumption model, towards more better usage that fosters full-life wear of garments. The Internet of Clothes is a collaborative platform that utilises a circular model to achieve this. The objective is to use technology as a means to enable that change in relationship.

Clothing in the connected wardrobe is tagged using a unique washable RFID thread. A reader on the wardrobe will identify garments as they are used and returned. This is connected to the cloud-based algorithm that will make decisions and offer the user suggestions of what to wear. As a discreet, passive system it does not require the user to tag garments in or out of the system. Enabled by an app on a mobile device, wardrobe users will initially scan each tag, photograph and name the items, then categorise their type of usage according to the weather or occasion. The app will send notifications of which garments are asking to be worn and which ones want to be passed on. The algorithm accesses machine learning to continually improve recommendations, by identifying patterns or habits of each user to make the most accurate, contextual suggestions.

Underpinning the concept are three guiding principles:

- Intelligence - the system will continually attempt to make the most appropriate decision on what to wear and which items to pass on
- Discreet - users themselves remain anonymous and individual data is not shared with the network. Instead, items of clothing assumes a personality that encourages the user to engage with them
- Collaborative - the wardrobe is a sharing platform. Users cannot sell items through the system, they can only be passed on to charity or other wardrobes in the network

Currently the project is at the working prototype stage. The team is currently seeking funding for beta testing with the objective to eventually deliver a commercial product, via a social enterprise. The precise nature of that product is open. The Internet of Clothes is platform in which many different ideas, functions and applications can be explored.

Departing from Southampton? What about staying awhile?

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Programme reference: R12

Southampton is the busiest cruise home port in northern Europe handling over 1.7m cruise passengers per year. There is little evidence on whether passengers stay in or around Southampton before or after their cruise. The aim of this paper is to present preliminary findings of an empirical study carried out on cruise passengers departing from Southampton. A random sample participated in a short face to face survey.

ILAS for Depression Management Framework

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Programme reference: R14

The implementation of health management systems for life-threatening and health challenging issue such as depression can be proven difficult with a multitude of challenges in abundance. Creating a research-based standard for the implementation of such systems following scientifically proven approaches could certainly reduce the burden associated with the development of such systems. This work introduces a novel Iterative Literature Analysis for Stakeholders methodology (ILAS) for the creation of Framework for Lifestyle and Depression Management, FLaDM. A depression management system based on FLaDM was created and evaluated and all indication reflected the suitability of FLaDM framework and by extension ILAS methodology for the development of depression management system.

Mental health is one of the main causes of health burden worldwide. In fact, one in every four people will suffer from mental health disorders during their lifetime of which depression is accountable for 18.75%. According to the World Health Organisation, 350 million people, globally are affected by depression (a feeling of low mood lasting over a prolonged period of time, which can contribute towards a lack of interest and appetite, fatigue and poor concentration).

Although the causes of depression can be attributed to a number of factors including poverty, genetic inheritance and various health problems with common symptoms such as restlessness, isolation and a lack of self-confidence etc., techniques of alleviating these symptoms have proven challenging over the years. In that regards, depression has been known to be one of the difficult and less-manageable health challenges in the world.

While common alleviation techniques include taking pills and medications and Cognitive Behaviour Therapy (CBT) etc., implementation of lifestyle changes has several proven to aid the alleviation of this health problems. Consequently, this work adopts a lifestyle managing approach for depression management.

Following, a novel methodology, Iterative Literature Analysis for Stakeholders (ILAS) is used to create a Framework for Lifestyle and Depression Management, FLaDM. Subsequently, a depression management system based on FLaDM was created and evaluated.

Taking into account that the methodology focuses on health management system development, its suitability for intended users is quite imperative. Therefore, a fusion of a number of user research techniques including surveys and interviews, stakeholder analysis and document analysis, root cause analysis and priority matrix amongst other were systematically fused to yield an Iterative Literature Analysis for Stakeholders, ILAS. While knowledge elicitation approaches such as survey and interviewing helped identify users and their positivity toward the system; a stakeholder analysis helped with the construction of potential users, associated factors and impacts on a priority matrix.

In addition, a root cause analysis allows depressions symptom identification and the underlying causes, while ranking and rating approach helped rated and ranked symptoms based on their corresponding severity.

Not only has the fusion of these approaches yielded the Iterative Literature Analysis for Stakeholders (ILAS), it also helped toward the creation of the Framework for Lifestyle and Depression Management, FLaDM, which the development of Personalised Lifestyle Depression Management System (PL-DMS) was based.

The evaluation of FLaDM-based depression management system does not only indicate the suitability FLaDM but by extension the ILAS methodology for the development of depression management system and, more generally, the development of health management system.

Does a 'Cook and Eat' intervention improve the frequency and nutritional quality of family mealtimes?

Mrs Lucy Glen | Solent University

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Programme reference: R14

Societal and economic changes in the structure of the family household have led to an increased incidence of families with both parents working full time. The associated negative impact on family mealtimes as a result has been linked to poor nutrition and related health behaviours. With consideration of the fact that the workplace has been identified as an effective setting for health interventions, this study will discuss the impact of providing 'Cook and Eat' sessions to working parents at Southampton Solent University on healthy eating behaviours and frequency of family mealtimes.

Within the last 10 years, changes in the structure of the family household have led to an 82% increase in families with both parents working full time (ONS, 2017). The reduction in parental hours at home has negatively impacted on family eating, particularly family mealtimes (Devine et al, 2009). The most commonly cited reason for this is the perception of lack of time and a knowledge deficit regarding healthy, quick meal ideas (Jabs et al, 2007). Frequent family mealtimes have been linked to increased fruit and vegetable consumption, improved healthier eating habits, reduced BMI, positive mental health outcomes for both parents and children, and greater social and educational attainment in children (Wolfson and Bleich, 2015; Woodruff and Hanning, 2013).

There is evidence to suggest that workplace settings for interventions to improve health outcomes can elicit significant results. Nutrition and physical activity interventions within the workplace can have a positive effect on participants health behaviours, in particular on healthy eating behaviours and reduction of body mass index (BMI) (Verweij et al. 2011).

Although providing information to participants on methods of health improvement can be successful, limitations to this method include a lack of practical instruction on how to apply the information in a real-world setting (Reicks et al. 2014). If individuals are unable to cook, they are unable to apply healthy eating knowledge effectively. Cooking-skills interventions that demonstrate the preparation of quick nutritionally-balanced meals alongside education on meal planning, shopping economically and instruction on how to avoid energy-dense foods can be particularly effective methods of assisting food behaviour change, especially in relation to working parents and healthy family meal provision (Fulkerson et al, 2010; Garcia et al, 2016; Garcia et al, 2017).

The aim of the study is to assess the effectiveness of providing 'Cook and Eat' sessions to working parents at Southampton Solent University on healthy eating behaviours and frequency of family mealtimes. The study runs from 21st February for 6 weeks and data will be collected from the administration of the 'Cooking Skills Confidence Measure' and the 'Food Skills Confidence Measure' at baseline and post-intervention alongside a barrier self-efficacy measure to assess perceived ability to overcome barriers to undertaking healthy eating behaviours. Data will be analysed to determine the effectiveness of the programme, and findings presented.

The professional identity of seafarers: The balance of substantive and situational selves and the interplay with imposter syndrome

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Programme reference: R16

The concept of professional identity, while complex, provides a framework for professionals to construct their own ideas of how to be, how to act, and how to understand their work and place in society, through the interplay of their substantive and situational selves. This research explores how seafarers express and negotiate their professional identity within both a professional community and a hierarchical organisational culture. Although much work has been done on the role of communities of practice and professional identity in education and medicine, little has been applied to the maritime industry.

A local exploratory case study approach, using interpretive inquiry, was adopted to develop understanding of this socio-cultural phenomenon. Data were analysed using an inductive, thematic approach. Of particular note to this study was the interaction of imposter syndrome and professional identity, and the implications for professional development. As a result of this study, a theoretical model was constructed to develop an advanced understanding of the concordance between role and self. Despite being a small scale study, the model has resonance and transferability to similar groups as they negotiate their professional identity in changing and demanding roles.

Utilising Human Resource Management to meet the threat of cybercrime.

Dr Esther Snell | Solent University

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Programme reference: R16

Data compromise is one of the foremost threats facing organisations today. The number, and sophistication, of breaches is growing as technologies such as cloud services, disruptive technologies, and mobile working, render firms increasingly vulnerable to sabotage, extortion and espionage. This paper explores the crucial role of Human Resource Management in helping to protect and secure organisations from both external and insider threats. Grounded in a quantitative study of firms based in southern England, it is argued that HRM must take a central role in enhancing the security, longevity and success of their organisations. This paper proposes some suggestions on how to achieve this goal.

Data compromise is one of the foremost threats facing organisations today. The number, and sophistication, of breaches is growing as technologies such as cloud services, disruptive technologies, and mobile working, render firms increasingly vulnerable to sabotage, extortion and espionage. This paper explores the nature and reach of Human Resource Management in helping to protect and secure organisations from both external and insider cyber threats. Specifically the study focuses upon the integration and utilisation of HRM departments within broader organisational strategy to meet cyber security breaches. It is argued that HRM is not utilised as extensively as it could, and should, be on either a day-to-day or strategic level to meet the challenges of cybercrime. HRM and business leaders, must do more to ensure that HRM professionals are utilised in a more dedicated and focused manner to contribute to enhancing their organisation's security.

The study is grounded in a quantitative survey of a number of HRM professionals employed in 20 small and medium-sized firms based in southern England. The survey elicits a range of information concerning the participants' awareness of information security threats, measures taken by their firms to raise awareness of these issues and enact strategies to mitigate the risks, the role of HRM departments in supporting and developing cyber security good practice, and how cyber security features in the participants' own jobs, and professional development and training.

Despite the small sample size, our analysis shows that cyber security is recognised as a significant threat in business today. However, only approximately half of firms, even many of the larger ones, have not included cyber security in their induction programmes, policies, and training; or, if they have, do not regularly update it. Whilst cyber security issues are encountered by HRM professionals in the course of their jobs, they rarely receive training in this area and are never provided with dedicated training to meet cyber security threats from an HRM perspective. It is argued that, given the nature of many cyber incidents, in particular the insider threat, HRM has much to offer to enhance current strategy and practice and that businesses would be better protected if they developed and enlisted the skills of their HRM teams strategically.

A social sustainability benchmarking model for shipping

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Programme reference: R16

This action research project aims to provide maritime managers with a self-appraisal tool with which to evaluate and monitor their progress towards the UNO Rio 2030 Sustainable Development Goals for social sustainability. In the maritime sector the focus of social sustainability is on the human element in safety, crew and family welfare, and recruitment and retention of seafarers. Social sustainability is of vital importance in shipping, as it affects safety at sea, but is an area which has not been researched explicitly. The research aims to make an impact by providing a diagnostic tool for maritime social sustainability management.

Proposal: Outline of the research project:

A Social Sustainability Benchmarking Model for Shipping

Background to the problem:

Despite the international importance of shipping and the existence of a regulatory framework for it, the conditions of service for seafarers are often poor and are frequently cited as a contributory factor to accidents. Already voluntary schemes operate to monitor and improve standards and performance in many operational aspects of shipping, but no scheme exists to appraise progress in maritime social sustainability. This research project intends to make some contribution towards increasing knowledge in this respect.

The aims of the research project are:

- To construct, having evaluated existing initiatives in sustainability benchmarking for the international shipping sector, a comprehensive social sustainability benchmarking model for the international shipping sector.
- To determine the institutional arrangements for implementing the social sustainability benchmarking model and to
- Assess the validity of the social sustainability benchmarking model in the international shipping sector.

Historical Context:

The International Maritime Organisation (IMO) 2013 document 'The Maritime Sustainable Transportation System' (MSTS) outlined how shipping could address sustainable development in relation to the United Nations Organisation (UNO) Millennium Sustainable Development Goals.

The revision of these goals in September 2015 introduced the 2030 Agenda for Sustainable Development, which included more emphasis on the social sustainability pillar.

Although MSTS has not been revised accordingly, the IMO Integrated Technical Operation Programme recognises the importance the 2030 Agenda goals for shipping.

Both MSTS goals and the Framework for Strategic Social Sustainable Development (FSSD) principles are applied in the model.

Methodology:

Stage One:

Constructing the Model:

- An empirical-pragmatic approach sets the goals and benchmarks;
- Formal pragmatics are critiqued with communicative action to develop understanding through common conviction;
- Results are refined by formal pragmatics, empirical pragmatics and hermeneutics to create outcomes.

Outcomes:

- Knowledge transformation;
- Morally- representational knowledge developed in the form of regulatives (norms for benchmarks and goals);
- Emancipation;
- Morally- representational knowledge in the form of benchmark context.

Stage Two:

Assessment, evaluation and verification of the model:

a) Assessment and Evaluation:

Dialogue between researcher and shipping company/companies to evaluate outcomes using communicative action and formal pragmatics.

Outcomes:

- Efficacy of model assessed.
- Creation of morally representational knowledge

b) Verification:

Use of formal pragmatics to test benchmarks and goals using communicative action in context of a shipping company.

Outcomes:

- Benchmarks and goals accepted or rejected.

The following should be presented:

- An overview of the prototype model;
- The mechanisms used to inform the model with the data;
- A couple of sections of the model to be examined in more detail;
- An examination of how the model may show progress in meeting the UNO 2030;
- Strengths, weaknesses and suggestions for future development.

The final section should lead into a discussion and question and answers at the end of the presentation.

Port Energy and Carbon Savings (PECS)

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Programme reference: R17

PECS is an EU Interreg funded project aimed at implementing low carbon and renewable energy solutions into small and medium sized ports and port operating companies within the 2 Seas region. This presentation will outline the development of the project, the nature of the port pilot studies and the University's role in evaluating and disseminating each of the different low carbon innovations. <http://www.pecs2seas.eu/>

NOTE: This presentation introduces a new/early stage research project and does not include a full proposal.

The Impact of Lean Construction Method on Construction Process Improvement: Evidence from the UK Construction Industry

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Programme reference: R17

Globally, the construction industry plays a significant role in economic development of any nation. However, its efficiency is low. In recent time lean construction methods such as the Last Planner System (LPS) has been identified as having enormous potentials to support construction process improvement in the sector. But, there is little or no documented evidence to support this assertion in the UK construction industry. This study explores the impact of the LPS on construction projects in the UK. By attending this session you will be able to identify some of the impacts of lean construction methodology on construction process improvement in the UK construction industry.

The Problem

Globally, the construction industry plays a significant role in economic development of any nation. However, its efficiency is low when compared to other sectors such as the manufacturing industry (Love, and Gunasekaran, 1996; Koskela, 1992). For instance, 50-60% of construction projects suffer both time and cost overrun in the UK (Crotty, 2012). However, in recent time lean construction methods such as the Last Planner System (LPS) has been identified as having enormous potentials to support construction process improvement in the sector (LCI, 2017; Daniel, et al. 2017). But, there is little or no documented evidence to support this assertion in the UK construction industry. In view of this, this study explores the impact of the implementation of the LPS (a lean construction method) on construction process improvement in the UK.

Methodology

An interpretive case study approach was adopted for the study. Yin, (2014) identified conditions that should inform the choice of a case study approach. These include: when the goal of the study is not to have full control over the phenomenon being investigated and when the goal of the study is to focus on real-life situations in a given context. In this study, the case study was used because it enables to glean the impact of the LPS on construction process improvement in a real-world context. Three case projects were selected from top 10 UK construction companies. Purposive sampling was used in selecting the case projects; this was done to enable the study answer the questions sufficiently (Bryman, 2012). The case studies were conducted over a 12 months period. On each of the projects, data were collected using three major approaches (observation, document analysis and interviews) for deepening and authenticating the results (Yin, 2014). On each case study, senior manager (SM), middle manager (MM), operational managers (OP), and subcontractors (SC) were interviewed. A total of 28 interviews were conducted and production planning and control documents were also analysed with Nvivo. The interviews were transcribed verbatim and cross-checked with findings from documents analysis and observation. The emerging findings are as presented and discussed below.

Results and Discussion

Impact of the Last Planner System on Construction Process Improvement Observed

The study found that the implementation of the Last Planner System had a positive impact in the following aspect as evidenced from the three case study: (1) Better collaborative working practice (2) better understanding of project goal (3) project time saving (5) process transparency (6) better communication among the team (7) reduction of non-value adding activities (8) better synergy

between subcontractors and main contractors (9) improved safety. The study shows that majority of the respondents agreed that the LPS implementation had enabled the team to make significant time saving. For example, on CSP02, a subcontractor reduced 80 weeks' programme to 50 weeks. Also, on CSP03, 8 months delay was reduced to 4 weeks as at the completion of this case study. The construction manager on CSP01 observed that the LPS process had a positive impact on the project as things were always done on time as a result of the phased planning or collaborative programming. According to Ballard and Howell, (1994) the LPS empower those doing the work to decide on the logic of activities which contribute to the development of a reliable plan. Previous studies in North America, South America and in the Middle East have also reported the impact of LPS implementation on construction time or programme reduction (Ballard and Howell, 1998; Alarcón et al., 2002; Alsehaimi, et al., 2009). Furthermore the study found that the application of the LPS principles on the project had improved the level of communication between the different stakeholders on the project. One of the respondents stated that: "The more time you spend with each other in planning, the better. It has improved the relationship between us" [Subcontractor's, Contract Manager]. The importance of having a good working relationship with the different stakeholders on a construction project cannot be overemphasised, because the absence of it usually leads to dispute which contribute to project delays. The study found that the use of First Run Studies and Prototyping supported by the LPS reduces the occurrence non-value adding activities that could arise from rework. The prototyping process provide opportunity for an activity to simulated before actual construction on site, through this all unwanted process are identified and avoided during live construction.

Conclusion

The aim of this study is to show the impact of the implementation of the Last Planner System a lean construction method on construction process improvement in the UK construction industry. The study has found that the implementation of LPS in construction projects in the UK supports; better collaborative working practice ; better understanding of project goal; project time saving; better synergy between subcontractors and main contractors; improved safety among others. The investigation reveals that the LPS is able to support this through its key five components that support collaborative conversation with different stakeholders on a construction project.

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Building foundation: A source of energy for space heating and cooling

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Programme reference: R17

Last decade was the hottest since the temperature records began in 1850, according to the World Meteorological Organization. Climate change has accelerated in the last decade and there are no sign of abating. In such a critical period there has been a tremendous pressure on scientists and engineers to design and develop energy efficient sustainable technologies to reduce greenhouse gas emission. Geotechnical engineers recently started to explore the possibilities of using ground energy, via the use of deep foundations, for space heating and cooling of buildings and other built structures. This paper reports a large scale field study of a geothermal energy pile subjected to thermal and mechanical loading. It was found that pile foundation can provide heat energy to building without affecting its mechanical performance.

Carbon footprint of buildings remains quite high in the UK due to high heating and hot water demand. Currently every residential building uses about 75% to 80% of its total energy for heating and hot water. Most of the heating energy is provided by gas and therefore every house emits up to 20 tonnes of greenhouse gases (GHG) annually. Building contributes to approximately 40% of total GHG emissions in the UK and rest of Europe. Ground energy can play a significant role in providing space heating and reducing GHG emission. Ground surface absorbs lot of solar energy every day and the ground temperature remains stable throughout the year irrespective of air temperature. Therefore the ground has a potential of delivering sustainable and renewable heat energy to buildings and recently building foundations have been used to harness the ground energy for space heating/cooling and hot water

Geothermal energy pile also known as pile heat exchanger, energy pile or thermal pile is a pile foundation of a building which incorporates heat exchanging loops to extract heat from the ground during the winter and store heat in the ground during the summer. This technology is derived from for ground source heat pump (GSHP) where heat exchanging loops are installed in the reinforced concrete pile. The heat exchanging loops generally consist of high density polyethylene (HDPE) pipes that carry heat exchanging fluid mainly water. The loops are connected to a heat pump system which delivers heating/cooling energy and hot water to the building. Efficiency and performance of the geothermal energy pile directly depend upon thermo-mechanical interaction of pile and ground. Very limited information is available regarding the impact of heating and cooling processes on the geotechnical performance of the geothermal energy piles.

This study presents an experimental investigation carried out to evaluate the thermo-mechanical performance of a geothermal energy pile. The energy pile was subjected to heating and cooling load for certain period and then it was subjected to mechanical load to determine its load capacity. Two types of testing were selected based on short term and long term heating and cooling cycles. It was found that the energy pile is capable of meeting heating and cooling demand of a building however it depends upon the surrounding soil type and ground water. Cyclic heating and cooling load caused low thermal stresses that should be taken into account for design. This study demonstrates and confirms that building foundations can be used to provide space heating/cooling and hot water.

Flood risk reduction advising for vulnerable repeatedly flooded businesses

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Businesses are increasingly vulnerable to direct and indirect impacts of repeat flooding events. Recent research has highlighted the impact of flood risk on commercial property insurability, maintenance and recovery, property utility and, ultimately, property value. This research explored the potential for built environment professionals to play a greater role in advising on at-risk commercial properties to better manage risk within the commercial property sector in an international context. This research provides an account of the learning outcome from five countries namely Australia, China, Germany, UK and USA reflecting on the insight gained from interviewing 72 built environment professionals in the field of flood risk management advising affected clients from the commercial property sector. The results show that barriers such as lack of training and incentives for appropriate professional development are common among all countries. Contrasting insurance practices in different countries revealed that the influence of insurers on flood risk mitigation is heavily dependent upon the uptake of insurance policies. Actions on these grounds can provide definite opportunities for building professionals in managing risk in an improved manner.

Globally, commercial properties are at a differing level of vulnerability of flooding in terms of nature of floods, associated with non-comparable regulatory & insurance regimes, divergent risk management policies & building regulations, conflicting professional responsibilities, client perceptions & level of understanding of risk mitigation. Fitting management & effective roles played by built environment professionals in risk reduction advising can present a window of opportunity for minimising flood vulnerability among commercial property sector that is often not taken advantage of. But what are the constraints that shape the capacity of built environment professionals to provide appropriate advice to affected clients internationally?

A qualitative approach was adopted in this research to explore the barriers and opportunities for surveyors dealing with commercial properties in providing flood risk mitigation advice. Specifically the study made use of in-depth interviews with a target population of building professionals (surveyors, insurance experts, valuation surveyors and investment experts) with understanding of commercial properties and flood risk adopting best practices in qualitative research design. Semi structured interviews were conducted with 72 experts having a variety of different experience in advising with regard to flood risk affected properties in the selected five countries. The size of sample was felt to be appropriate in advance given the in-depth nature of research and the limited number of building professionals working in this area.

The evidence from this study points to the important role built environment professionals are already playing in providing impartial and professional advice on commercial properties at risk of flooding in all the regions considered. Insurers were seen as a key stakeholder in encouraging flood risk mitigation across all countries in the research. There is also substantial potential to increase the involvement of built environment professionals in flood risk mitigation and to raise standards in flood recovery.

The development of a Resilience and Vulnerability-based Decision Support System (RV-DSS) considering Infrastructure interdependencies. A Case Study of North Argyll, Scotland

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This project focus in providing a dynamic Resilience-Vulnerability Decision Support System, based on interdependencies of Water, Transport and Energy networks. Unlike the available Decision Support Systems, the RV-DSS tool provides a measure of network resilience in response to environmental hazards, in addition to vulnerability measure. The main benefit of the RV-DSS approach is to provide asset owners and managers with resilience-vulnerability-informed (RV-informed) investment choices. By generating a quantitative measure of network vulnerability and resilience, considering infrastructure interdependencies, the most severe failure scenarios and spatial impacts can be identified, which improves and helps in prioritising future business planning strategies.

The challenge currently faced by our industry partners in the public utility sector, is the lack of a robust resilience-informed business planning strategies in response to interdependent assets' failures and low-probability/high-impact environmental hazards. Currently, the available Decision Support Systems only rely on risk/vulnerability measures while interdependent network resilience is overlooked.

The frequency and magnitude of environmental hazards in Scotland has increased significantly in the last decade, resulting in widespread failures in critical infrastructure networks. Breakdowns of critical infrastructures (interdependent and integrated) disrupt essential services and result in severe consequences for asset owners/managers, users and the wider community. To reduce these impacts, a Resilience-Vulnerability Decision Support System (RV-DSS) is required to map interdependent network vulnerable components and introduce adaptive capacities accordingly.

The aim of this project was to provide a dynamic Decision Support System, based on interdependencies of Water, Transport and Energy networks. Unlike the available Decision Support Systems (e.g., iRoad, Neptune, etc.) the RV-DSS tool provides a measure of network resilience in response to environmental hazards, in addition to vulnerability measure.

This project was focused on North Argyll in Scotland and considered the implication of community isolation in resilience of interdependent infrastructure systems for the first time.

Using resilience in combination with risk assessment can lead to significant savings through risk reduction and expeditious recovery in particular for low-probability high-impact events. The proposed Decision Support System uses resilience measures, as well as vulnerability, in developing operation and management scenarios.

The main benefit of the RV-DSS approach is to provide asset owners and managers with resilience-vulnerability-informed (RV-informed) investment choices. By generating a quantitative measure of network vulnerability and resilience, considering infrastructure interdependencies, the most severe failure scenarios and spatial impacts can be identified, which improves and helps in prioritising future business planning strategies.

Unexpected Stories

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Programme reference: R18

Unexpected Stories is a proposed portrait inspired exhibition, which focuses on narrating the unexpected life stories of individuals. The project is part of my professional practice development as a Postgraduate student on MA Critical Creative Practice. My idea was initially inspired by participating in a storytelling event with *Touch Network*, where I was moved by other participants' stories and how unexpected moments affected their lives. In reflection of this experience, I wanted to consider using photography and moving image to explore how the narratives of sitters can be told through visual formats.

After an introduction by my co-presenter and course leader Amber Lamonby-Pennie, I will use twenty minutes to discuss the initial concept for the project, the developmental process used and the creation of the interdisciplinary content. The discussion will underline the key elements to my creative approach and process, such as; narratives, 'positionality' and interdisciplinary creative practice. The narrative techniques included within my work will give a first-person perspective of my sitters' stories. The portraits are created as a response to how I as the photographer view each participant and how at any moment the unexpected can alter a life story forever. Challenging the notion that there is often more to a story, my project considers an innovative approach using plural narratives to allow the participants to photograph moments of their own lives. In a collaborative approach, each sitter is encouraged to use a disposable camera to capture what cannot be documented through the lens. The aim is to place the sitters' personal everyday photographic images with their portrait, to create a visual storyboard that will expand the viewers' understanding.

In a response to the interdisciplinary nature of the work and collaborative process, I wanted to share the experience of the narrative technique. As a working methodology, I like to take my sitters' experiences into consideration and use the idea of 'positionality', to situate myself within my projects. This approach enables me to engage with subjects more fully. This method will enable me to include my story as part of the series, allowing me to relate to my sitters and share my story with them as they shared theirs with me.

As part of the discussion, the presentation will include a twenty-minute Q&A opportunity. The time will be divided, allowing my co-presenter to present me with questions about the possible outcome of my project and inviting audiences to participate within the Q&A, using the remainder of the time.

An exploration of wellbeing at sea

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Programme reference: R19

Modern seafaring has changed within a generation. Technological advances, global recruitment, commercial and security pressures have led to fewer crew and rapid port turnarounds that provide less opportunity for seafarers to spend time at port within the voyage. In a unique and intrinsically dangerous living and working environment seafarers continue to work shift long hours in a societally atypical working pattern. As the provisions of the Maritime Labour Convention become operative, this research discusses the effects of the modern seafaring environment on seafarer wellbeing and the effectiveness of legislative provision in safeguarding their position.

The World Health Organisation 2014 defines mental health as a state of wellbeing that includes the ability to enjoy life, contribute to society and to cope with everyday stress. Personal experience of wellbeing fluctuates within the parameters of inspirational creativity to debilitating mental health conditions such as depression and anxiety. Wellbeing depends upon the individual's external environment that provides both the opportunity to realise personal potential and the source of mental illness and distress. Effective functioning within an environment requires adequate nutrition, sleep, the maintenance of an equitable body temperature and the ability to adjust to change and challenge through biological stress mechanisms and adaptive coping responses.

A purposive opportunity sample of six officer-cadets returning from their first sea phase, six junior officers with between three and fifteen years seafaring experience and an experienced seafaring captain contributed in-depth individual interviews. They described their motivation for the seafaring life-style, their fluctuating well-being and coping strategies within an environment of shore leave and sea voyage. Using Interpretative Phenomenological Analysis themes were identified within the accounts given by the officer-cadets, the junior officers and the sea-captain and the results compared with their individual demographic and seafaring circumstances. Additionally, responses to questions from the British Health and Safety Work Place Risk Assessment, a well-being questionnaire completed before interview and, in the case of the officer-cadets a comparison of scores from immediately before and after their sea-voyage are analysed, compared to the qualitative data and with data obtained from a wider group of non-interviewed seafarers.

The preliminary results suggest that seafarers face multiple challenges at all stages of a career that presents opportunities for self-development, proactivity and responsibility. Within these challenges lie pitfalls in terms of the cumulative effects of limited sleep opportunities and overwork with potential motivational and safety consequences. The results point to the pivotal role of senior management on board ship for the sensitive resolution of problems, and ensuring the safety and morale of the crew. However, the additional demands on time for senior onboard staff in preparing and providing the required evidence required by the regulations, particularly where the ship is making frequent port calls, create a burden of overwork that compromises their ability to carry out other essential roles.

Whilst shore leave provides a necessary period of mental and physical recuperation and relaxation from responsibility, re-energising the seafarer for the next sea-voyage, adapting to the sudden change of pace, demands and structure from a seaborne to land based existence can be problematic for some seafarers. An associated challenge is the avoidance of isolation by the maintenance of a balance between seafaring and land-based attachment with motivation towards seafaring diminishing with changes in domestic priorities.

Although the Maritime Labour Convention provides avenues of redress and security for seafarers, anxiety is still experienced over potential criminalisation for shipping accidents that lie outside their direct control. Issues remain over the interpretation, administration and the enforcement of regulations particularly in certain jurisdictions. This proposal discusses the issues raised from a multi-disciplinary perspective.

Ship Visitor App

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Programme reference: R19

The role of digital connectivity and its capacity for creating a culture of connectivity is an area that has sparked a great deal of interest and debate over recent years. Many are familiar with the claim that despite increased connectivity, society is now more isolated than ever before, and some assume this to be true for all contexts. This session seeks to counter the argument that digital connectivity cannot provide meaningful relationships, and sets out to present a positive model of digital connectivity as a tremendous force for social good within the context of seafarer welfare. The study explores the Ship Visitor app as an innovative solution to connecting a largely invisible workforce with an intelligent and well thought through support system.

Human connectivity is a basic human need and is something that all can relate to. In a similar vein, the power of digital connectivity, and the extent to which it can provide genuine meaningful connections, is a familiar topic of discussion. The session is therefore relevant to all, including those with little or no prior knowledge of the shipping industry. This study will demonstrate a successful model of digital connectivity that is based on multi-organisation collaboration with the aim of creating an innovative solution to linking groups of seafarers dispersed across the seas - often in extremely isolating conditions - with vital support networks. Data will be presented and explained in order to show the effectiveness of the Ship Visitor app and real life case studies will be drawn upon to illustrate how the app is making a real difference to human lives.

In 2015, Sailors' society launched a new ship visiting app, Chaplaincy, which was designed to transform port to port welfare by delivering improved services to seafarers in order to better measure the impact of their work. In 2016, the Society decided to licence a version of the app to other seafarer welfare providers with the aim of reaching as many seafarers as possible. The app was renamed, 'Ship Visitor'.

Developed with the support of MarineTraffic, the Ship Visitor app relies on input from participating seafarer welfare agencies, and enables real-time activity reporting by maintaining a history of ship visits and support provided to seafarers. Data can then be accessed by chaplains in other ports and, subject to confidentiality and data protection policies, can be used to provide ongoing care and assistance as ship and crew continue their voyage. The app makes it easy for collaboration with other organisations - chaplains and ship visitors are better able to quickly respond to a seafarer's need and, with better communication and data, agencies are able to faster identify welfare issues. The Ship Visitor app is enabled by access to global ship tracking data from MarineTraffic, which helps chaplains see which vessels are in port and those due to arrive. The result is more effective use of time and improved coordination with other welfare organisations.

It was revealed in a recent survey conducted by charity Seafarers' UK¹, that only 2% of respondents knew that 95% of the UK's imported food comes by ship. The term, 'sea blindness', first used in the 1980s to reflect an inability to connect with maritime issues at an individual or political level, is a worldwide phenomenon that results in the world's six million seafarers being perceived as a hidden workforce.² This study explores how Sailors' Society is using the innovative Ship Visitor App to shine a light on these forgotten groups of people by connecting these individuals with support and continuity of care when they arrive in ports across the world.

¹ <https://www.safety4sea.com/survey-reveals-seafarers-major-contribution-in-every-day-life-/>: accessed 09/02/18

² Duncan Redford, *Maritime History and Identity: The Sea and Culture in the Modern World* (London: I.B. Taurius and Co. Ltd. 2013), 62.

Since Sailors' Society's foundation in 1817, the shipping industry has undergone remarkable change, particularly following mechanisation and then the rise of container shipping. Whilst improving the efficiency of transportation have resulted in substantial economic benefits, this has come at a great cost to seafarers who face longer contracts, more time at sea and less time in port.³ In turn, this poses significant challenges for the delivery of welfare support. Just as the industry has innovated, so too have welfare providers and Sailors' Society has been committed to continually improving the support it provides to seafarers working in a unique, transient environment.

This year, Sailors' Society is celebrating 200 years of providing ongoing practical, emotional and spiritual support to this hidden workforce as part of its mission to transform the lives of seafarers at home, in port and at sea. Ship Visitor is at the forefront of the latest generation of innovative care that Sailors' Society is providing to seafarers worldwide.

Ship Visitor has been live since 2016 and now has 348 regular users from 11 organisations with a global reach across the Americas, Australasia, Asia, Africa and Europe. Over 53,000 status reports have been made, more than 15,000 ships have been visited and in excess of 400,000 seafarers met with.

In terms of multi-organisation collaboration, the Society is building working relationships at a far higher level of trust than ever before as all of the data is pulled into one system (although each organisation keeps their status report in a secure, separate portion of the database). There are many benefits to data sharing, which include, firstly, the ability to see a record from a previous ship visit with details of who made it and actions that were taken and, secondly, access to crew data means that the ship visitor has a better idea of the ethnic makeup of the crew, which means that they can bring appropriate resources on board.

Data sharing has enabled alerts of any welfare cases, or problems, to be made as soon as they are made known to ship visitors. Through communicating information of ship visits, the app has enabled collaboration with other welfare organisations in order to ensure continuity of care, joined up thinking and more efficient working. Sailors' Society is committed to developing even more by promoting the app to further ship visitors in order to reach a maximum number of seafarers.

The data generated by the app has provided reports on nearly 10,000 ships, which represents almost 20% of the world's merchant fleet. This is a remarkable feat and is only possible through careful, planned collaboration with participating welfare organisations. The Ship Visitor app provides an excellent platform through which to develop cross organisational communication, paving the way for a new collective approach to seafarer welfare, which has a far greater capacity for meeting seafarers' needs and enhancing their lives.

³ <http://www.itfseafarers.org/ITI-shore-leave.cfm>: accessed 09/02/18

Welfare Support for Seafarers in Chinese Ports: Restructuring, Impact and Prospect

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Programme reference: R19

Port-based welfare services (PBWS) for seafarers are vital to seafarers' health and wellbeing with important implications for the safety of life and property at sea. There are now over 400 such centres around the world, except in Chinese mainland. In China, the International Seafarers Clubs (ISC) were set up in major port cities in the 1950s. The paper aims to answer these questions: What has happened to Chinese ISCs? Why has China, while rising as an economic power, does not present itself as an effective provider of welfare services for seafarers on ships that carry most of its international trade in and out of its ports, to and from the seas and oceans? What is the PBWS (or non) for seafarers in China in the 21stC?

Port-based welfare services (PBWS) for seafarers are vital to seafarers' health and wellbeing with important implications for the safety of life and property at sea. This is highlighted for implementation in recent ILO Maritime Labour Convention 2006. Traditionally, seafarers' centres have been key providers of the PBWS for ocean-going seafarers throughout the world. In the West, these centres are run primarily by faith institutions, such as Christian seafarers' missions, as well as by trade unions, governments and NGOs. There are now over 400 such centres around the world, except in Chinese mainland. In China, the International Seafarers Clubs (ISC) were set up in major port cities in the 1950s. They were intended to showcase the 'Socialist New China' for visiting 'foreign seafarers' but in effect became providers of PBWS for visiting seafarers. These ISCs seem dwindling in recent 20 years and the PBWS has been affected as a result. This paper uses data drawn on a research project (2017-2018) which examines the history and impact of the structural changes in world shipping and the social economic reform in China on the ISCs and on the level of PBWS for seafarers in Chinese ports, as associated immediately with seafarers' health and wellbeing. The paper aims to answer these questions: What has happened to Chinese ISCs? Why has China, while rising as an economic power, does not present itself as an effective provider of welfare services for seafarers on ships that carry most of its international trade in and out of its ports, to and from the seas and oceans? What is the PBWS (or non) for seafarers in China in the 21stC?

Using Creative Methods for Migration Research: An Interactive Embroidery and Writing Workshop

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Programme reference: R20

I will offer two making activities to act as models of the research I have undertaken on migration in the urban settings of London and Southampton. I will speak about the challenges and possibilities of creative, co-producing methodologies for migration research.

In this 45-minute interactive session I will offer two simple creative exercises, involving embroidery and creative writing techniques, to model the work I have undertaken in London and Southampton as a researcher of religion, migration and urban space. While we work upon our pieces, I will speak about the various academic-creative partnerships I have taken part in and/or lead over the last few years. These include "Fabric of Faith", an interfaith embroidery project with women in West London, as part of the broader Making Suburban Faith project based in the Geography department at UCL. I will also profile the early stages of my creative projects in Southampton which seek to explore experiences of migration within the city using embroidery and creative writing techniques.

As a creative practitioner/academic researcher, I will suggest that creative methods greatly enable the production of safe spaces for research into intimate areas of lived experience, including stories of migration. They can foster empathy and trust between interviewers and interviewees, enabling discussions of themes that might be more difficult to discuss without a making activity in place. I will also argue that creative research methods democratise the research process, by making the "respondent" into an active co-producer of their own narrative. The makers who, along with us, as researchers, sewed the the piece that was produced as result of "Fabric of Faith", "My Life is But a Weaving" had passionate ideas upon its structure, exhibition, and are always active participants in discussion events. Co-production raises interesting ethical questions regarding authorship, but also opens up the possibilities and the conversation regarding migration in ways that are not possible through traditional research methods.

Team work impact in action: A maritime perspective

Dr Kate Pike | Solent University

Co-presenters: Emma Broadhurst, Solent University; Karen Passman, Impact Crew; Chris Wincott, NJC Associates Ltd; Nickie Butt, Solent University; Richard Neale, Solent University

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Programme reference: R21

This interactive session aims to demonstrate the different interactions and measurable strengths gained from working with a familiar team as opposed to an unknown team. By engaging the audience in two interactive and entertaining tasks, the benefits of working together more than once will be demonstrated and discussed in light of a current, international, maritime, research project run by Southampton Solent University. This stimulating session will highlight the value of the research and form the basis for a thought provoking discussion.

Solent University are undertaking a three year research project to explore the measurable benefits and challenges of maintaining stable teams within the Merchant Navy.

Shipping accidents negatively impact on the lives of seafarers, the marine environment and the trade and reputation of the shipping company involved. Creating the best team working environment on-board is paramount to advancing safety and more sustainable ways of working. With crewing commonly being the largest factor in the vessel's operating budget, understanding the potential benefits of keeping the top management teams together for more than one voyage and on the same vessel, may have significant impact for the industry. This is currently not the norm, with 'fluid teams' joining the vessel for one voyage only and then starting a new contract on a different ship when the last contract expires.

This interactive session aims to demonstrate the different interactions and measurable benefits of keeping teams together, as opposed to working with teams that do not know each other. This session will be facilitated by the six members of the Effect Crew (EC) project team and will be run in the following format:

1. The audience will be asked to sit in small groups, according to the total number participating.
2. An introduction to the Effective Crew project will be made, and the activities for the session explained. (5 mins)
3. A five minute team building task will then be assigned to all the groups and each table will be facilitated by a member of the project team who can then be a spoke's person for their group. (5 mins)
4. When the first task is completed the teams will be asked to discuss the way they worked together, focusing on the interaction and productivity of the team. (5 mins)
5. The room will then be re-organised, with some tables keeping exactly the same people together and others being mixed up with different people, simulating stable and fluid teams (or crews). (5 mins)
6. Another different, short team building task will then be performed by the teams and facilitated by an EC member. (5 mins)
7. When the second task is completed the teams will again discuss their experiences, with a facilitator from each table providing brief feedback to the whole group. (10 mins)
8. A summary of the interactive sessions will be presented in light of the research project and the value a more stable environment provides. The opportunity for questions and discussion will be provided. (10 mins)

Whilst it is acknowledged that working together just twice is not the same as doing it over a period of months and years; the interactive tasks will start to highlight some of the benefits of getting to know how people work together and how this might facilitate better productivity and effectiveness in many different environments, such as the Merchant Navy.

This session will be rehearsed in advance of the conference with project team members, to iron out any issues and ensure that the timing is accurate.

Need for Buoyant Disaster Response Shelters in Indian Coastal Areas

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Programme reference: R23

India's coastal length (mainland) is >5000km and, these coastal areas have several river islands which falls under the National Coastal Regulation Zone (CRZ) named as CRZ 1, CRZ 2 and CRZ 3. Majority of the River Islands are under the CRZ 1 which are mostly "No Development Zones". The present study focuses on the identification of development strategies for the river islands of the western coast of India which comes under the category of CRZ 1. This area was not enough studied in the past and accordingly, an ethnographic case study for the river island Timmana Kudru, (Karnataka, India) has been carried out to fill the research gap. Accordingly, the current study focused on socio-cultural and infrastructure aspects and issues within the existing scenarios are documented. Further analysis has been done by considering the administrative guidelines of development and approaches to facilitate habitable condition in the island. The strategies of disaster preparedness developed in the form of a buoyant disaster response shelter for the island will be applied to the similar islands across the region which are listed as vulnerable to natural hazards such as cyclones, floods and rain-induced landslides.

CRZ(COASTAL REGULATION ZONE)

Definition in India as per the notification of 2011

- Area from High Tide Line (HTL) to 500 metres (m) on the landward side. HTL is the line on the land upto which the highest water line reaches during the spring tide.
- For tidal influenced water bodies: area from HTL to 100m or width of the creek, whichever is less, on the landward side.
- Area falling between the hazard line and 500m from HTL on the landward side. For tidal influenced water bodies this distance is 100m. Hazard line is the line demarcated by the union Ministry of Environment and Forests (MoEF), through the Survey of India, taking into account tides, waves, sea level rise and shoreline changes.

Source : GOI Ministry of Environment and Forest Notification 2011

CRZ Regulations prohibited activities in India as per the notification of 2011

- Setting up of new or expansion of existing industries.
- Manufacture or handling of oil and storage or disposal of hazardous substances.
- Setting up and expansion of fish processing units except hatcheries and natural fish drying.
- Land reclamation, bunding or disturbing the natural course of seawater except those required for foreshore facilities or activities permissible under the Notification, measures for erosion control, etc.
- Setting up or expansion of units or mechanism for disposal of wastes and effluents except discharge of treated effluent, storm water drains, treatment and disposal of wastes and effluents from hotels, resorts and houses located in CRZ areas (other than CRZ I).
- Discharge or dumping of untreated wastes and effluents from industries, cities, towns, etc. Any existing discharge should be phased out within two years or one year respectively, of the CRZ Notification, 2011.

METHODOLOGY OF THE STUDY

An ethnographic case study for the river island Timmana Kudru, (Karnataka, India) has been carried out to fill the research gap. Accordingly, the current study focused on socio-cultural and infrastructure aspects and issues within the existing scenarios are documented. Further analysis has been done by considering the administrative guidelines of development and approaches to facilitate habitable condition in the island. The strategies of disaster preparedness developed in the form of a buoyant disaster response shelter for the island will be applied to the similar islands across the region which are listed as vulnerable to natural hazards such as cyclones, floods and rain-induced landslides.

INTRODUCTION TO TIMMANA KUDRU RIVER ISLAND KARNATAKA INDIA

GUIDELINES REGULATING BUILT FORMS IN TIMMANA KUDRU AS UNDER CRZ 1

GUIDELINES FOR DISASTER PREPAREDNESS

1. Central high platform in the island to be retained as a disaster management cell which has a storage for emergency facilities like a raft , transition shelter .
2. All homesteads to be surrounded by a flowing channel of water to avoid water logging and floods.
3. Renovated household should have high plinths of houses preferably on stilts to avoid flooding.

India Model of Lightning Early Warning & Safe Grid Management System

Col SANJAY SRIVASTAVA | Indian Institute of Management, Ahmedabad

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Programme reference: R24

Lightning is the biggest killer as compared to all other natural disasters in Africa, Latin America, U.S.A., South East Asia. In India, it accounts for more than 2000 deaths every year. To combat this, Indian state of Andhra Pradesh has initiated a Lightning Warning System (LWS) project , based on detection, prediction, timely dissemination, capacity building(awareness and training),enhance preparedness, prevention and mitigation measures and creation of safe grid to mitigate/prevent lightning impacts. It has considerably brought down the fatalities.The technology is innovative and its worth emulation by others .

India Model of Lightning Early Warning & Safe Grid Management System

Lightning has been the most biggest killer cumulatively as compared to all other natural disasters in Africa, Latin America, U.S.A., South East Asia including India. In India, the year 2017 has seen a substantial growth in fatalities due to lightning . In India, as per National Crime Records Bureau (NCRB) report , at least 2000 deaths per year is attributable to lightning and it accounts for at least 10% of the total deaths caused by natural disasters . Lightning affects all hilly regions in North East, north and south and coastal states like Odisha, West Bengal, Andhra Pradesh, Chhattisgarh, Maharashtra, Jharkhand, Himachal Pradesh, Bihar etc. considerably. However, Lightning is a state specific disaster in few states but not a national disaster by Government of India.

Lightning strikes are common along with monsoon and hailstorms, caused by cloud to cloud or cloud to land (hill) collision discharging huge uncontrolled negative energy towards earth. It causes huge loss of life and damage to property. In regions other than Coastal areas, lightning is frequent in hilly and other areas due to the prevalent geographical conditions such as undulating hilly topography, deciduous monsoon jungles, low altitude clouds, rich mineral content etc.

In India , state Governments of Andhra Pradesh, West Bengal, Karnataka, Jharkhand have initiated a Lightning Warning System project by carrying out detailed analysis of this constant and steady killer called lightning and has been able to save loss of life and property.

1. In order to address the menace of lightning, a detailed analysis of the root cause of frequent lightning in Andhra Pradesh in coordination with international and national agencies was carried out and a Lightning Warning Project has been developed which is based on early detection, timely alert/warning to target masses by available communication means, capacity building by infrastructural and non infrastructural (awareness and training) means, enhance preparedness, various prevention and mitigation measures and creation of safe shelters on a grid to minimize the losses as well as to mitigate/prevent lightning impacts. The salient aspects of this concept of Lightning Action Plan are as follows:-

1.1 HRVC Mapping of Lightning prone zones in Jharkhand.

1.2 Detection of Lightning/storm

1.3 Alert /warning system

1.4 Enhance preparedness

1.5 Prevention and Mitigation

1.6 Capacity Building

1.6.1 Training

1.6.2 Awareness

1.7 Safe Grid- Creation of safe grid

1.8 Monitoring, evaluation and Review.

2. Government of Andhra Pradesh has implemented a Lightning Warning System project with the technical support from Indian Space Research Organisation (ISRO) in February 2017 and the state has been able to reduce the loss substantially. States like West Bengal, Karnataka and Kerala have also adopted for the similar project for next monsoon.

In view of rise in the lightning fatalities due to global warming and climate Change extremities, it is proposed that adequate fund and support should be provisioned to map high risk areas of lightning and similar projects should be run to reduce the fatalities.

Physiochemical analysis of water of Pushkar lake Ajmer

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Programme reference: R25

Ajmer is located in the center of Rajasthan (India), 25 38 " and 26 58" north latitude and 73 54" 75 22" East longitude covering a geographical area of 8481 sq. km. hemmed all sides by Aravalli hills. About 7 miles from the city is Pushkar lake created by the touch of Lord Brahma. The Dargah of Khawaja Mouinuddin Chishti is holiest shrine next to Mecca in the world. Ajmer has hot dry summer and cold bracing winter. Temperatures vary from 2- 49 oC. Winter extends from November to February and Summer from March to June followed by Rainy season till September. Annual rainfall is 5273mm. Present study was carried out to determine various physiochemical parameters (pH, carbon di oxide, Alkalinity, Acidity, DO , TSS etc.) of Pushkar lake water.

Multiple Hazard Vulnerability Assessment: A case of South India

Dr. Komali Kantamaneni | Solent University

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Programme reference: R26

India is one of the natural disaster prone countries in South Asia in both catastrophic and economic damage aspects (cyclones, floods, landslides, earthquakes, droughts, volcanoes). More than 80% of India's geographical area is very vulnerable to the multiple hazards. High intensified cyclones and flood events are increased in recent decades because of anthropogenic induced climatic changes. Many of those events frequently struck across the southern part of India such as Chennai, Bengaluru, and Visakhapatnam as evidenced in 2015-2017. Accordingly, the current study analysed the natural disaster events which occurred in South India for the period of 2000-2017 in both physical and social-economic aspects to examine the precise occurrence of natural disasters. Analysis results explored that, of the 29 states, 23 are vulnerable to disasters and >50% of the land is susceptible to earthquakes, 8% to cyclones and 13% to floods. More than 40 million people have exposed to floods and cyclones annually. Some factors, such as rapid urbanisation, poor infrastructure and land planning and management strategies, poor disaster preparedness arrangements in disaster-prone areas are the main driving forces to accelerate the natural disasters in South India. However, there is a need to adopt the strong disaster management policies to minimise the hazards risk in disaster-prone areas.

Assessing preparedness of local government units in addressing the health needs during pre-emptive evacuation. A case for the District of Albay, Philippines.

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Programme reference: R27

Disasters pose a variety of health risks, including physical injury, premature death, increased risk of communicable diseases, and psychological effects such as anxiety, neuroses, and depression. Further, disaster can lead to destruction of local health infrastructure—hospitals, doctor's offices, clinic that would most likely have an impact to the delivery of health care services. Any disaster, regardless of type, has potential of increasing disease transmission if it results in either direct or indirect changes in the human ecology. The aim of this study was to assess the level of preparedness of Local Government Units and Rural Health Units in the 3rd district of Albay during pre-empted evacuation and its implications for disease transmission. A descriptive evaluative approach was used to evaluate the level of preparedness of the Local Government Units and Rural Health Units on the municipalities of the 3rd district of Albay composed of Guinobatan, Ligao, Oas, Polangui, and Libon. This study was anchored in three intersecting theories to address the aim; the transition model, the adaptation Model and the systems theory of nursing practice. A triangulation methodology was used for data collection involving a distribution of questionnaires to the Local Government Units and thirty structured interviews conducted with Rural Health Units. The questionnaires used a 5 point Likert scale. The findings provided the basis to conclude that personnel at all levels were appropriately trained and the specific roles of Local and Rural Units is understood. In terms of disease prevention, a clear approach to evacuation areas was in placed with identification of safe water sources. Budget was identifies as the main barrier faced by respondents during pre-empted evacuation, as such, more attention should focus on budget allocation. Key Terms: Pre-emptive evacuation; disaster preparedness; disease transmission

We all fall from time-to-time': A realist evaluation of falls management in Southampton

Mr Wayne Bennett | Solent University

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Programme reference: R24

Every year, one-in-three individuals over 65 years falls, potentially resulting in injury, disability and premature mortality. With an annual cost of £2.3 billion, falls constitute an issue of public health, with substantial human and economic costs. Although not all falls can be prevented, steps can be undertaken to minimise the risk in those who do. As a primary, respected source of health information, general practice is ideally suited for the management and prevention of falls. Consequently, this research is a realist evaluation of general practitioners management of falls and falls prevention, understanding what works, for whom and how in Southampton.

Falls are internationally recognised as an issue of public health, owing to the substantial burden of injury and premature mortality. Globally, 37.7 million individuals fall every year, placing falls as the second largest cause of unintentional injurious mortality, following road traffic injuries (World Health Organisation 2017). Although the vast majority of falls are non-fatal, a significant number of falls result in injury requiring medical attention. These injuries can range from minor cuts and soft-tissue damage, to potentially life-altering fractures of the hip.

As a result of falling, it is older adults (those over 65 years), who are at the greatest risk of injury, disability, institutionalisation and premature mortality. In the UK, one-in-three older adults will fall at least once per year, increasing to one-in-two in those over 80 years. Regardless of whether the fall result in injury, many older adults suffer with a 'post-fall syndrome', including fear of future falls, leading to decreased mobility, activity restriction and social isolation, further increasing the risk of future falls.

Whilst the act of falling is readily understood, the underlying reason behind the falls is often more complex and multifactorial. As the population of the UK is increasing ageing, successfully managing and preventing falls, and their associated risks, is crucial for both human and economic benefits.

As a first point of healthcare contact, general practice is ideally placed for the management of falls and falls prevention, due to the regularity of older adult consultations and the continuity of care provided. In the local context of Southampton, there are a number of interventions in place for the management of falls; however, access to these interventions is primarily through GP referral. This research therefore aims to understand what works, for whom, how and why in the GP management of falls in Southampton. Utilising a realist methodology, theories regarding why and how GP falls management does or does not work are identified.

Interim theories of the context, mechanism and outcomes identified, through a mixture of primary interview with Southampton GPs and literature review, will be presented. Currently, further data collection is on-going (due to difficulties accessing GPs for research), through the undertaking of Q sort. This allows the GP to provide an understanding of their world-view of falls management practices. It is anticipated that, by the time of the presentation, this data will be collected, evaluated and finalised and will therefore form an additional aspect of this presentation.

Building capacity for co-productive methods in realist evaluation: Local Area Coordination Case Study

Mr James Mason | Solent University

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Programme reference: R24

The Local Area Coordination (LAC) Network aims to create a supportive network of resources to achieve long-term development and associated reforms in England and Wales. Despite multiple evaluations having been conducted on the LAC Network, to date, no evaluation has imbedded co-productive methods. This paper draws upon an evaluation of the LAC Network on the Isle of Wight (IOW) integrating Realist Evaluation with a range of co-productive methods involving internal stakeholders at different stages (Pawson and Tilley, 1997). Realist evaluation holds significant promise in exploring how and why programmes work to produce certain outcomes. This is distinct from conventional outcome focused evaluations that only provide insight into programme outcomes and impacts. It has been noted by Harris (in press) that realist evaluation epitomises equifinality, in that there are many causes to an outcome. Subsequently, Q methodology, which is qualitative and quantitative in nature, was utilised to support the process of testing, reflecting and refining initial programme theories, through statistical analysis that elicited shared viewpoints. This approach helped to identify the complexity of causes which support people through the network (Byrne and O'Callaghan, 2014). Due to issues of accessibility presented to external evaluators, a strong rationale emerges for the implementation of co-productive approaches to support the evaluation, in accordance to understanding what works within the IOW network, for whom, in what circumstances and why. Subsequently, this paper reflects on the experiences of working with stakeholders as part of the evaluation process considering to what extent co-productive practises can support findings, at what specific stages of the evaluation it may be most effective, and indeed highlighting the practical limitations which may arise.

A Theoretical Framework for Innovating Evaluative Practice within Asset-based Community Development programmes: Collaborative Principles and Realist Methodology

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Programme reference: R24

The research study sets out to mobilise stakeholders associated to ABCD activities as collaborative partners within evaluation. To achieve this, a 'Stakeholder-driven Realist Evaluation' framework has been developed, which will be tested and refined through realist evaluation methods. This is possible through synthesising Shuhla et al's (2015) 'Collaborative Principles' to evaluation, within Pawson and Tilley's (1997) Realist approach to evaluation to establish how and why ABCD works (or not), for whom, and in what circumstances.

The research proposal builds the justification for the development, testing and reconceptualisation of a 'stakeholder-driven' realist approach to evaluating 'Asset-based community development' (ABCD hereon) programmes, as set out by Kretzman and McKnight (1993). This is necessary in order to understand to what extent ABCD generates 'health' assets which protect and improve individual health and wellbeing and reduce inequalities, as generally claimed by Kretzman and McKnight (1993); Mathie and Cunningham (2002); Morgan and Ziglio (2007; 2010); Foot (2012); Rippon and Hopkins (2015); and Public Health England (2015).

The evidence-base mobilising ABCD in improving population health stems from empirical studies and meta-analyses which link outcomes to ABCD efforts. Fisher (2011); Hubbert (2009); Eriksson and Lindström (2006); Amirkhan and Greaves (2003); Sairenchi et al., (2011); Holt-Lundstad et al., (2010) and Cohen and Janicki-Deverts (2009) connect ABCD related activity to improvement in (clinical) physical and mental health outcomes: self-esteem, coping abilities, resilience, reduced stress, lower levels of anxiety, mortality and morbidity, greater resistance to infectious disease and a better prognosis when facing chronic life-threatening illnesses. In addition, the literature suggests that the outcomes generated through ABCD in practice stem through a range of patterns (configurations) i.e. direct through the effects of participation on the individual; indirect through community influence on service changes; through initiatives focusing on health behaviour; and some from improvements in social determinants of health. All underpinned by improvement in social trust and social capital and community cohesion.

Despite the believed promise and value surrounding ABCD in improving population health and wellbeing, there is a paucity of robust evidence which explicitly connects ABCD activities to improvement in public health outcomes at a micro level. Specifically, issues exist in understanding how the implementation of ABCD within a community context results in the generation and distribution of resources that results in positive changes (or not) for individuals. Hence, evidence is currently unable to articulate the types of activities which might work for different population groups in different contexts, and why (or not), as eluded to by both Mackenbach and Bakker (2002); Whitehead and Dahlgren (2006).

This leads to the positive effects of ABCD being 'widely assumed, accepted', though not well understood. This is demonstrated within the literature by Morgan and Ziglio (2007) offering knowledge claims from other 'academics' concerning the evaluation of asset-based approaches, but does not recognise the vital distinctions of context and linking the inner-working of ABCD activities to outcomes. Hence, the 'black box' exists surrounding ABCD (Astbury and Ieeuw, 2010). Foot (2012) acknowledges that the 'mechanisms' giving rise to, and addressing, inequities and improving individual health and wellbeing through ABCD are still imperfectly understood and evidence remains to be gathered.

In considering the issues in evidence, monitoring and evaluation practice and lack of evidence guiding surrounding alternative approaches, a justification for both collaborative-based and realist approaches to evaluation can be drawn. Collaborative approaches to evaluation align to the nature and practice of ABCD principles, and realist evaluation will contribute towards addressing the current issues in evidence and evaluative practice. Literature had alluded to the value and promise of both collaborative and realist approaches as appropriate monitoring and evaluation methodologies to evaluate ABCD orientated programmes, though lack theoretical and methodological application, testing and refinement within this context. This research thesis aims to develop, test and refine a framework for mobilising 'stakeholder-driven' realist approaches to evaluating ABCD programmes.

A realist evaluation of EduMove; an integrated physically active teaching and learning (PATL) model

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Programme reference: R24

The purpose of this research is focused on a realist evaluation of a more physical activity (PA) biased curriculum delivery in UK primary school classrooms using EduMove products and programmes to ascertain what works for whom under what circumstances and why, in more physically active teaching and learning classroom environments.

EduMove stands for Education through Movement and is an innovative educational approach that aims to promote cross-curricula delivery of core school subjects using enjoyable movement orientated games. EduMove aims to achieve the learning of core academic subject skills (Numeracy, Literacy, Science) through movement games utilising a cross-curricula delivery as well as the development of physical literacy. Additionally, EduMove encompasses other areas of importance such childhood obesity and inactivity through the promotion of an active life style and other factors around participation in physical activity, for example teamwork and competition. It aims to build the capacity of Teachers and School Leaders to form a holistic cross curricular approach to school based active and movement centred pedagogy within the wider context of educational attainment, physical activity and health through mediating and developing key relationships within the complex contexts of primary schools.

Early results show that Teachers are welcoming of PA in classrooms but find implementation a challenge. Pupils would welcome more physical activity in classrooms as it is more fun and as such more likely to help them remember core concepts although they too see difficulties.

The following pertinent programme theories have emerged:

- Teacher autonomy
- Classroom ecology
- Teacher confidence and knowledge
- Pupil engagement levels
- Integration of Edumove (PATL) sessions

The next research phase will look to further test and refine the above areas with a view to creating a realist informed evidence based PATL Teacher Toolkit.

The childhood physical inactivity crisis has been well documented over recent times and much research has looked to address the problem and the interrelated issues (Designed to Move 2012; Mandic et al 2012) The school environment has been a regular focus for interventions (Thul & LaVoi 2011; Sproule et al 2013). The purpose of this PhD research is focused on an evaluation of a more physical activity (PA) biased curriculum delivery in UK primary school classrooms using EduMove products and programmes to ascertain what works for whom under what circumstances and why in more physically active teaching and learning classroom environments.

This research aims to address physical activity and health outcomes and increasing levels of attainment in core subjects through the following;

- To use specified schools to understand the current landscape of classroom based movement and PA provision for primary school aged children.
- To understand and analyse the perceptions and attitudes of all vested interests around a more movement centred pedagogy.
- To undertake a realist evaluation of an integrated physically active teaching and learning (PATL) model.

Methods (including type of data collected)

A realist method (Pawson and Tilley 1997) of qualitative data collection will be employed focusing on realist interviews of teachers and active pupil focus groups in order to test programme theory around EduMove products and programmes. A planned accelerometer study will indicate quantitative data.

Results

Early results show that Teachers are welcoming of PA in classrooms but unsure of the most effective methods of implementation. Complexity of curricula and time and resource pressure are contributing factors. Pupils would welcome more physical activity in classrooms as it is more fun and as such more likely to help remember core concepts. Results of a small scale pilot accelerometer study showed a lack of sustained PA.

Conclusions

The research thus far concludes that UK primary schools should embed and integrate PATL within the classroom environment through more sustained and regular low intensity physical activity (LIPA) to raise attainment and engagement in core subjects and influence health and wellbeing.

THREE MINUTE THESIS

New times, new crimes how seafarers are affected by criminalisation.

Ms Thérèse Canning | Solent University

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Modern seafarers run the risk of criminal prosecution as a result of actions they undertake on board vessels as part of their jobs. The risk is small, but can have disproportionate consequences for the individual, and the fear of being caught up in criminal processes affects over 80% of seafarers surveyed (Seafarers Rights International, 2016). The purpose of this presentation is to explore the features of the seafarers' experience which make them more vulnerable to criminalisation within the context of an increasingly globalised workforce.

Criminalisation is a broad term which can either apply to specific actions or groups of people and can change over time. In general, as societies develop, more criminal offences are created, this does not mean that there are necessarily more criminals though. Traditionally seafaring has had very little regulation but that is changing fast.

There are over a million seafarers world-wide, working on cargo vessels, tankers and cruise ships, providing us with goods, fuel and leisure. The world crew comes from a variety of nations with the top five crew supplier countries being: China, the Philippines, the Russian Federation, the Ukraine and India. Whereas, the top five ship-owning nations are: Greece, Japan, China Singapore and the USA. Most ships do not fly the flag of the owner nation but are 'flagged out' to nations such as Panama, Liberia and the Marshall Islands. Regulations are, in general, enforced by Port State Authorities inspecting or investigating visiting ships. So, beyond the international nature of the work itself, there is a complex set of relationships between national identities. This stage of the research is involved with fully exploring the issues as they relate to criminalisation of seafarers. Included in this work is looking at recent regulations and the way they are enforced. An assessment of the way in which seafarers 'fit' into recent explanations of criminalisation theory. Part of this assessment is based on studies already completed about the lives of seafarers and a comparison between the experiences of people facing prosecution in other industries, specifically, medical prosecutions in the UK. The consequences of criminalisation for the individual seafarer can be extreme and as (Seafarers Rights International, 2016) found, typically the human rights of the seafarer were not respected. The fear of criminalisation is having an effect on the industry in terms of recruitment, promotion and retention. It is also affecting how seafarers do their jobs, how they think about themselves and their plans to stay in the industry. (Seafarers Rights International, 2016)

Seafarers Rights International. (2016). Seafarers and the Criminal Law. Retrieved from Seafarers Rights International: http://seafarersrights.org/wp/wp-content/uploads/2014/10/seafarers_and_the_criminal_law_survey1.pdf

An evaluation of the role of small and medium sized enterprises that are involved in export on the Malawian economy: structure conduct performance

Ms Catherine Matupa | Solent University

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The purpose of this research is to assess the role of Small and Medium size enterprises (SMEs) that are involved in export and their impact on the Malawian economy. The Structure Conduct Performance (SCP) framework is used for this research to determine the relationship between industry structure and performance. The SCP says that the structure of the industry in which a firm finds itself will determine the conduct of the firm and its performance. Industry structure includes buyers and sellers, the ease or difficulty of entering the market which in turn affects the conduct of buyers and sellers on how they price and promote their products, invest in research and development and whether they compete or cooperate with others in the industry. Performance is the economic result of the relationship between industry structure and industry conduct.

SMEs are defined differently depending on the country in which they exist and in Malawi they are defined by the number of employees and income.

Firm size in Malawi

Type	Employment	Annual turnover (MK)
Micro	1 – 4	Up to 120 000
Small	5 – 20	120 001 to 4 million
Medium	21 – 100	Above 4 million to 10 million
Large	Above 100	Above 10 million

Source: Ministry of Industry, Trade and Private Sector Development

Mk = Malawian Kwacha

SMEs are important to the Malawian economy in addressing rural and urban poverty, they provide means for people to cope with unemployment problems, they provide different sources of income, they promote homegrown entrepreneurship, they are also able to provide alternative sources of employment, champion innovation and strengthen competitiveness in international markets. A World Bank survey from 2012 indicates that they are 760,000 small and Medium sized enterprises in Malawi.

The research is focused on Malawian exporting SMEs because of the role they play in the economic development of a nation. Exporting firms bring in Forex and create employment opportunities and they usually offer better pay for their employees. Exporting firms may also experience productivity improvement as they are exposed to tougher competition on the world market.

Theoretical framework

The SCP is used to trace the causes of industry performance. It is based on the model of cause and effect. Industry financial performance is caused by the competitive conduct of players in the industry. This conduct is in turn caused by industry structure.

Provisional results

The provisional findings show some expected and unexpected results. The findings show that age of firm, direct exports, internal funding and experience of top manager, Research & Development have a positive relationship with performance. On the other hand, a high degree of competition, poor electricity delivery, crime and theft, direct exports have a negative relationship with performance

Contribution

Firstly, the application of the SCP framework in the Malawian context is the contribution to the body of knowledge.

Secondly, the research wants to contribute to practice by documenting the support that is available to SMEs.

Thirdly, the research will inform policy makers on creating attractive industry structures for SMEs.

Lastly, the research wants to fill a gap in literature of the factors that influence the ability of Malawian SMEs to export and the contribution of Malawian SMEs to the Malawian economy.

Avengers Assemble: How stable teams can combat accidents in the shipping industry

Mr Richard Neale | Solent University

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Implementation of a stable crewing strategy within the global shipping industry will reduce the likelihood of maritime accidents occurring

This PhD directly links to the Effective Crew Project currently underway at SSU sponsored by Lloyds Register and the TK Foundation. The assumption that the use of stable crewing improves onboard safety by minimizing accidents is the primary goal of this research. The PhD will look into safety considerations and legislative aspects through literature review to ascertain any correlation between accidents and crewing strategies currently employed within the shipping industry. Research data will be gathered through scenarios that will simulate high stress situations that might be possibly encountered at sea, testing stable and fluid teams regarding efficiency of training/procedures and speed. Implementation of a dedicated crewing strategy into national policy and international legislation will then be explored.

If substantiated, it's envisaged that a stable crewing strategy implemented across the industry through international legislation will improve not just safety but seafarer wellbeing, whilst improving the economics of shipping companies' insurance costs would diminish, with reduction of vessel inspections and greater retention rates.

Do crewing strategies have any noticeable effect on reducing potential collisions between vessels at sea. It will delve deeper into the psychological components of crewing strategies and allow me to develop a framework which can be utilised and implemented across the maritime industry in the form of a policy change. This policy will improve current thinking on team management systems which I envisage will increase safety, improve team wellbeing and mental welfare, as well as increase shipping companies' economics with regards to reduced accidents leading to reduced insurance costs, inspections and greater retention rates.

This will be achieved by identifying the underlying factors inherent in shipping accidents through historical records, establishing how the development of teams has evolved into distinct crewing strategies, investigating through the use of comparative studies how other industries have attempted to reduce accidents through changes in team dynamics, creating a working model or framework that correlates accident modelling and crewing strategy theory and ascertaining whether the implementation of a dedicated crewing strategy is realistic by examining the hurdles, failings, and successes that other legislation has been subjected too.

Current methodology includes the use of a comprehensive literature review, pilot study, multiple comparative studies, case studies, economic modelling, bridge simulations, interviews, focus groups and surveys.

POSTER PRESENTATIONS

All posters are presented in alphabetical order, by title.

Augmented Reality

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This research investigates the potential AR technology in the form of holographic motion sensors can have on improving the customer experience with high street retailers as well as delivering a competitive advantage to the brand. Secondary research was carried out using academic journals on customer experience and competitive advantage within retail and was supported by articles and books. Primary research was carried out through a questionnaire using closed questions so it could be targeted towards shoppers using the high street; the findings from this showed that 79% responded positively in terms the amount of people that would engage with holographic motion sensors in store. In addition to this, 66% of respondents claimed they would be more likely to shop in store if AR technology was available.

Avengers Assemble: How stable teams can combat accidents in the shipping industry

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Bamboo Architecture in Disaster Response

Kankana Dev | Indian Institute of Technology
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The built environment today is affected more and more by the rapid and extreme changes due to manmade and natural disasters. In these scenarios, new designs with bamboo are needed to protect communities and infrastructure. The use of 'engineered bamboo' in contemporary architecture suggests an environmental stratagem towards achieving sustainability in the built environment. While, ecological considerations, social and cultural impact establishes the need for a form of architecture that is flexible, lightweight in construction. There are two aspects of design, first which reflects artistic thinking, seeking innovation and second, is an investigation for functional adaptability. This study is an attempt to establish the crucial characteristics of Bamboo Architecture that make it successful. Design and manufacture of a post-disaster transitional shelter with partial prefabricated and portable bamboo elements show that portable bamboo buildings are feasible, and can fulfill many different roles and are economically viable to build and operate. This study takes a case study approach to explore in details the strategy and design considerations taken to achieve the objectives of creating a quality environment as disaster response aftermath a catastrophe.

An outline of the project

This study is an attempt to establish the crucial characteristics of Bamboo Architecture that make it successful. Design and manufacture of a post-disaster transitional shelter with partial prefabricated and portable bamboo elements show that portable bamboo buildings are feasible, and can fulfill many different roles and are economically viable to build and operate.

A brief explanation of underpinning research

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The impact of your project

To explore in details the strategy and design considerations taken to achieve the objectives of creating a quality environment as disaster response aftermath a catastrophe.

Information about future

Prototype and framework development for modular bamboo transitional shelter as disaster response.

Build the City Multi-function apartment building in Britain and China.

xinxian kou | Solent University
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the author describes the construction of multi-purpose apartments in the city to ease the lives of people in the city, whether students or workers, although they are small but still enjoy many housing facilities. This article uses many literature surveys, surveys, and interviews to gather personal opinions from people in each country. The purpose of this article is to organise valuable information based on the needs of the people collected in each country, conclude that we should pay attention to when building multifunctional apartments in various countries, the author's research report hopes to successfully solve the problems of modern dwelling youth in the future urban life.

With the rapid development of science, technology and the rise of population,

Bought an own home and with a pleasant surrounding is the dream of most job seekers. However, most real estate developers also value this business opportunity and raise the prices of houses deliberately mainly gathered in the shopping centre and urban centre. In response to this century's problems, many construction teams provide special home remodelling services to those who have housing needs but are cash-strapped. One of the most remarkable cases is from France. The team of designers from France carefully crafted this 18-square-meter cubicle that encompasses not only all the rooms and facilities costumers need most, but also the full range of eco-friendly and sustainable properties (J, z. 2017). The most important thing is that the total renovation budget is only 40,000 EUR. This multi-functional small-area apartment building suitable for the present society and most of the young people. It is an excellent subject to compare the differences between Chinese and British architecture and concepts.

Nowadays, a suitable house is harder to find than a job for each year's fresh graduate. However, with rising house prices, having own house by the age of 30 is extremely difficult for young people in most ordinary households. Although some parents are willing to let their children live at home or even help their children to buy a house, buying a home means genuinely independent and is the goal of youngest people.

According to this global situation, housing demand is gradually rising. However, for young workers who do not have much savings, low prices mean small spaces or wrong location, so how to meet the needs of most users in the smallest space and the transformation of location surrounding is this research aim.

Objectives :

- 1) Provide housing assistance for fresh graduates
- 2) Emphasis on the reuse of items and maximise the use of space. At the same time can achieve the purpose of saving energy consumption
- 3) Reduce the mortgage pressure on a new generation of young people
- 4) Avoid renters are cheating graduates who have just stepped into society.

Compare the architectural design of Chinese and English hotels.

Feifei Sheng | Solent University
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A hotel is well suited to the needs of contemporary and future social development, taking into account the long-term interests of society and customers, the hotel will take the road of sustainable development. The research going to compare the Shanghai JINMAOJUNYUE Hotel in China with the Amberley Castle- A Relais & Chateaux Hotel in UK, and research on sustainable development is the trend of the hotel industry. The paper discusses the right way to collect information from relevant people and then analyze the statistics.

1. Introduction

1-1. Background

SHANGHAI JINMAOJUNYUE Hotel

The SHANGHAI JINMAOJUNYUE Hotel is located on the 53-87 floor of the 88-storey JinMao tower, which was named the "world's highest hotel" by the 2000 Guinness world records millennium edition. The SHANGHAI JINMAOJUNYUE Hotel, with 548 deluxe rooms, is in the center of the city. Shanghai international convention center is only five minutes, from the bund, Shanghai's famous adjacent river avenue, and classical style of the buildings along stood only ten minutes' walk. It only takes 40 minutes from the hotel to Hong Qiao international airport and 45 minutes to Pudong international airport. (Shanghai.grand.hyatt.com.2018).

Amberley Castle- A Relais & Chateaux Hotel

The 900-year-old West Sussex castle offers luxurious accommodations within the walls of the century, and its stunning gardens have 18-hole golf courses and two lakes. The hotel has a free private car park, a 10-minute walk from the Amberley Rail Station. (Amberleycastle.co.uk.2018). Elegant bedrooms are furnished with antiques and fine fabrics, and guests can enjoy cookies on arrival. Each room is also equipped with a soft, comfortable bathrobe, slippers, flat TV and a tea/coffee facility. (Agoda.com.2018).

The Amberley Castle hotel is completely enclosed by the ancient walls of the Castle, retaining the lift gate and lowering the gate at night. Guests can climb the walls to see the magnificent view, play tennis in the hotel, and enjoy themselves on the hockey lawn. (Chartered Institute of Building 2014)

1-2. Research Aim and Objectives

Aim

The aim of the research is to compared the differences between well-known hotels in Britain and China, mainly in terms of the cost of facilities and services. At the facility, the research will focus on the exterior and interior decoration of the hotel. In terms of services, the study will compare the cost of entertainment and catering for two hotels.

Objectives

1) Use literature, to identify the needs and designs of hotels in China and the UK.

- 2) To determine the survey objectives, selection of a hotel to compare from the United Kingdom and China.
- 3) Obtain information through the feedback of hotel households and analyze their respective characteristics and advantages and disadvantages.
- 4) The questionnaires are prepared and the questions asked about the evaluation and improvement of the hotel and will be distributed to the members of the tourists from China and UK.
- 5) Prepare interview for three interviewees in the UK and China through a face-to-face interview. The interview questions include comments and ideas to evaluate and improve the improvement of Chinese and UK hotels.

Compare the difference between China and UK in the direction of safety in interior design

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This report compares China and the United Kingdom in terms of interior design (Zamora F, 2017) and materials on the choice of security for children's parents and to provide ideas for designers to ensure the safety of children.

This topic is selected in order to get a good idea of what family members usually have to think about and pay attention to their living conditions and environment. They will first consider the price or the safety of children as a prerequisite for the selection of high-priced materials with high security, comparing China and Britain can also understand that parents are more concerned about what aspects of interior design, also can know how to decorate room to allow child to grow better (Levine E, 1975). The author is very interested in interior design and materials, want to be a designer, so choose this topic, in advance for their dreams to understand some knowledge of life, because in the JIANGSU Urban and Rural Construction College (JSURCC, nd), China, the author also conducted art design study, so can study this subject very well.

Background:

Use the case study method to get the final result directly and effectively. Author compares the safety of interior materials and design in China and the United Kingdom. In addition, the safety target is children, from infants to elementary school children, so apartment plans are considered from the view point of safety of children in JiangSu ChangZhou(JSCZ, nd) province and Southampton. By analyzing the pros and cons of case studies and differences, interior designers can learn from each other and correct mistakes.

Research Aim:

The aim of this research is to investigate the perceptions of parents in JiangSu, ChangZhou(JSCZ, nd), China and Southampton, United Kingdom about the safety of interior material selection and facility design for apartments and compare them to related articles or case histories. The final analysis will be used to determine whether replacement materials and safe designs are necessary and their value.

Objectives:

1. Investigate relevant literature and knowledge
2. Conduct a preliminary study
 - a. Develop related issues and supporting information
 - b. Distribute questionnaires to target groups
 - c. Interview with target groups
3. Analyze the questionnaire and interviews and making diagrams
4. Identify the final conclusion

Comparison between China and the UK of interior lighting design

Sicheng Tang | Solent University
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The report will compare the differences between China and Britain in the field of indoor lighting design. To do that, this report will review the basic theories and use questionnaire to generate understanding of interior light design between the two countries. Visit interior designers to learn the detailed steps and key points of interior lighting design will also be done. Conclusions will show the difference between China and the UK.

During people continuously seek the quality of life, their expectations and requirement towards the space where they live have greatly changed. Now people have higher demand for interior design as people pay more attention to the effects of lighting and its impact on the interior space. Lighting has always been a confusing thing, but it is necessary to master it. According to Oiseaux (2014), a design without lights often ends up with less than expected results. In the process of indoor design, any subtle lighting adjustment is likely to change the effect of the whole space, even the simplest lighting combinations can have unexpected effect. For a building, it cannot be moved, it may be visible during the day, but light is needed to interpret it at night. According to Yang (2011), indoor lighting is an important part of interior design. Interior lighting design should be conducive to human activities and comfortable life.

Comparison of the effect of acute aerobic and resistance exercise on electro-cortical activity during locomotive single- and dual-task performance

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There is a growing body of evidence showing that levels of physical fitness and acute bouts of exercise are associated with improved cognitive function, for example: changes in electro-cortical activity associated with the allocation of attention resources (P3 event-related amplitude). Most research to-date, however, has only examined the influence of acute aerobic exercise on electro-cortical activity with few studies exploring the impact of resistance exercise. For this reason, the current study examined the effects of two different modes of acute exercise (aerobic and resistance) on measures of task-related electro-cortical activity during the performance of a multidirectional locomotor task.

Introduction: There is a growing body of evidence showing that levels of physical fitness and acute bouts of exercise are associated with improved cognitive function, for example: changes in electro-cortical activity associated with the allocation of attention resources (P3 event-related amplitude). Most research to-date, however, has only examined the influence of acute aerobic exercise on electro-cortical activity with few studies exploring the impact of resistance exercise. For this reason, the current study examined the effects of two different modes of acute exercise (aerobic and resistance) on measures of task-related electro-cortical activity during the performance of a multidirectional locomotor task.

Method: In a randomised, cross-over design, 15 participants (7 M, 8 F; mean age: 27 ± 7 years) performed single- and dual-tasks before and after an acute bout of exercise. In the single-task condition participants walked around a grid-based track travelling in varying directions at each of the intersections. Direction of travel was determined by a command stimulus that required the participant to respond to a green light (left hand turn), red light (right hand turn) or no light (straight ahead) at the intersection. In the dual-task condition participants performed the same walking task while performing a memory task (remembering 3 key words from a shopping list). Electro-cortical activity (stimulus and decision formation related responses) were recorded by electroencephalography during each task before and after exercise. The acute bouts of exercise required either 45 min of moderate intensity aerobic exercise (at 60-70% VO_{2max}) or 45 min of upper and lower body strength training (12 reps x 3 sets at 65-75% of 1RM) separated by 1-week.

Results: There was significant improvement in single- and dual-task trial completion time independent of exercise mode. However, whereas aerobic exercise was associated with an increase in electro-cortical activity associated with decision formation, resistance exercise was associated with no change or a decrease in electro-cortical activity.

This study demonstrated that, in a novel locomotive dual-task paradigm, which was more akin to activities of daily living, acute exercise resulted in improved locomotor performance. While both aerobic and resistance exercise improved performance the effect upon the underlying electro-cortical mechanisms was different. Aerobic exercise was associated with increased arousal and allocation of attentional resources, whereas resistance exercise was associated with an improvement in electro-cortical efficiency.

Comparison of the Heating, Ventilation and Air Condition between China and UK

Miao Wan | Solent University
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Heating Ventilation and Air Conditioning (HVAC) is an indispensable part of intelligent building to create comfortable, efficient work and living environment. This report researched the impact of the studying and working environment for students and lecturers by primary research using questionnaires and interviews are used. The survey process was explained detailed in this report. Literature survey for Heating, Ventilation and Air condition (HVAC) and the design method of colleges and universities ventilation system were survived between China and UK. Finally, the results of primary research and secondary research were analyzed.

Different system designs can control different indoor environment. For example, students spend most of time stay in colleges during a day, therefore, the studying environment is very important for them, a good studying environment can improve learning efficiency. This report will introduce some system designing methods according to comparison between China and the UK.

Customisation for the luxury market

Rebecca Labelle | Solent University
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This proposal will be detailing how Kurt Geiger will implement customisation within their brand. Incorporating online and offline digital strategies to enhance their consumer experience. Determining whether there is a need for customisation within the luxury market, valuing the consumer needs to enhance their shopping experience, and if it will deliver a competitive advantage. Extensive secondary research has been undertaken to identify how effective customisation is and how it is currently enhancing consumer needs and lastly analyzing how existing brands are integrating customisation within their strategies. Additionally, primary research has also been conducted within a survey, securing an understanding of consumers opinions regarding customisation.

This proposal will show evidence on how customisation can develop Kurt Geiger's online and offline presence, showing the development on how it will increase the consumer experience and add value to the brand. Creating a customisation software will evolve the brand to remain competitive and deliver unique and personal experiences to their consumers with a strong digital presence. Throughout the research several methodologies will be used providing a rounded analysis of the research topic chosen, showing validity of the concept.

Additionally, to develop the brand even more new marketing techniques will be explored to enhance continuous innovation with a competitive advantage. Aiming to use customisation within Kurt Geiger to increase sales revenues, developing brand awareness by integrating both online and offline marketing platforms where consumers will be able to customise products both in-store and online. With Kurt Geiger having consistent growth in economic cycles and international expansion it will enable the brand to have more disposable revenue to develop new strategies.

Customisation is already in high demand by consumers, both high street & luxury brands have adapted into this platform and has seen to be successful by increasing profits and adding personal value to the brand. Exemplifying what is currently on the high street is sportswear brand Nike, delivering customised trainers for their consumers, enabling them to personalise their product to their own specification. Luxury brand Burberry have also created deluxe experience for their consumers where they can personalise the iconic trench coat to their preferences and upload images of themselves wearing the product on a unique site called "Art of the Trench". Furthermore, consumers are in high demand for tech-driven products or experiences whilst shopping, with Kurt Geiger adapting their strategies and incorporating this platform into their products it will increase consumer creativity in the design process enabling them to feel valued by the brand.

Consumer needs have become more technology-driven, more demanding and much more unpredictable within the fashion industry. As technology is developing consumers desire seamless experiences in-store and online.

Responding to the current demand, customisation will give consumers the opportunity to engage with an advanced platform which encourages creativity in designing the process, making consumers feel valued. The whole design experience will give the consumer a

sense of accomplishment seeing the product, knowing that they have their own personalised creation.

Consumers will be able to adapt each product to their own personal preferences. The options of customisation that will be available for the customer to change are; colours, patterns, zips, decoration and size dimensions of these decorations. Consumers will be able to have the opportunity to share their customised products on their social media platforms. Moreover, customised products will take a little longer to produce as they will be personalised to each specific order, impacting on the time frame of the delivery which could be a problem to some of the consumers.

Using the hashtag #KGCUSTOM, it will deliver strong brand awareness and capitalise stronger connections with consumers. Furthermore, consumers that use #KGCUSTOM will also gain opportunity to have their personalised product advertised on Kurt Geiger social media platform, adding value to the brand and forming stronger connections with the consumers. Integrating the software into social media platforms will take the social media analyst on average a week to evolve and drive awareness of the campaign.

Data Ownership and Privacy on the Internet

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With the increasing amount of personal data flowing out as we use the internet, and we are now at a stage where people have grown up with internet access compared to those who were mature when it entered their lives, the author considered it an interesting question to establish what current awareness and attitudes were around a sense of owning your own data, and privacy online. To draw from the research any patterns and correlations from those attitudes, and the behaviour in how different groups of people approach and use the internet.

The basic methodology behind this research, is to first identify a variety of stakeholder groups that utilise the internet on a regular basis. Taking a university student body as a whole, divide between mature students and younger students, people on more technologically aware faculties, and some from those faculties that don't have the emphasis on IT awareness. To identify some groups that would be more aware of information security issues in general compared to some that don't have such an inherent awareness.

Then potentially using a q-methodology approach of questionnaires in general to collect a quantitative series of results which could be analysed and patterns of awareness, attitudes, beliefs and behaviour could be recognised.

This would then be followed by identifying key members of each stakeholder group that had not been asked to answer questionnaires, and interviewing them to provide more qualitative responses. These individuals would be identified as subject matter experts (SMEs) in some form or another. For example, a student union rep from the student body, a lecturer who teaches Cyber-security courses from the Technology faculty, a professor from the Defense Academy, etc.

Key questions for the interviews would be matched to the core subject questions used for the questionnaires, to allow some form of comparison and inclusion. While some questions would be based on the results of the early questionnaire responses.

Once both sets of data have been collected, full analysis could be attempted. Hopefully drawing out interesting patterns and outliers to consider, and identifying key areas of concern and behaviour in the way the internet is utilised.

Developing a model for delivering targeted content strategies to achieve high ROI for small businesses

Aysha Samrin | Solent University
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The content industry has seen an incredible transformation in the last two decades. People go online to consume content, making it critical for a businesses' success to get content out to the right people at the right time and in the right format. Marketing is one of the many challenges that small businesses face due to their limited resources. Content marketing can be the solution to this seemingly insurmountable task. This session will dive into understanding the benefits of content marketing and the high ROI that small businesses can achieve by developing a targeted content strategy. Ongoing research and case studies into developing a model for creating effective content strategies for small businesses will be discussed.

Technology innovation has enabled incredible changes in human behaviour. Scientific advancements have revolutionised the content industry and changed the ways in which we interact with content. The online ecosystem has put consumers in the driver's seat. People go online to consume content, making it critical for a businesses' success to get content out to the right people at the right time and in the right format. Small businesses, especially small startups, face numerous challenges due to limited resources and high competition, with many small businesses finding the challenge of marketing their company nearly insurmountable. Content marketing can be the solution to building a strong brand identity with limited resources. A report by market research firm Aberdeen Group (2014) highlighted that business that made use of content marketing were likely to see conversion rates six times higher than non-users. However, in its content marketing survey report, Econsultancy (2012) reported that 65% of companies considered content marketing to be too expensive, while only 34% had a dedicated budget. On the contrary, research has shown that content marketing costs 62% less than outbound marketing and generates 3x as many leads (Demand Metric in McCoy 2016), suggesting the untapped potential of content marketing as an inexpensive way to lead online visitors down a sales funnel.

This session will dive into understanding the benefits of content marketing and the high ROI that small businesses can achieve by developing and implementing a targeted content strategy. Ongoing research and case studies into developing a model for creating effective content strategies for small business will be discussed.

This research aims to provide a starting point for small business to understand and apply content marketing to achieve high ROI. The potential impact of this study can be judged by a brief insight into Etsy's seller statistics. Etsy is one of the top websites available today for the average home entrepreneur to sell handmade and vintage items. 86% of Etsy sellers are female, and around 30% of sellers say their store is their sole occupation. A large majority of sellers start their business as a way to channel their creativity and do something they enjoy (Zarya 2015). It is assumed that such sellers have a limited understanding of effective marketing techniques to promote their small businesses when the store evolves into something more than a creative channel. With over 200 million people using ad-blocking software worldwide (Pagefair 2015), paid advertising may not be the best strategy for small business with limited resources. Developing and implementing a

targeted content strategy would be of critical importance in achieving a high ROI for small business, similar to those on Etsy.

This study would use a mixed methods approach and use a case study of the researcher's small start-up. It is expected that results from this study would serve as a springboard for building and establishing the researcher's small business.

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Find My Item

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This study examines the factors which will need to take place for Zara to integrate the 'Find my items app' (Navigation app) onto the consumers smartphones. The advantage of having the app is allowing consumers to have the ability to find products easily. This enhancing the prospect of sales through the use of RFID tags and real-time information through the app. Almost all research is being focused on ways to make the consumer feel engaged with the app; making the app feel more personalised to them. Another element the research is focussing on is the type of technology which will be used and Zara will need to invest in. The research was conducted through the use of Secondary and Primary research. An interview was put in place to gather reliable information first hand, from a specialist about the Technology which Zara will need to invest in. Results showed that if the correct technology was used and brought value to the consumer, the app will be a success. The findings will be a temporary continuous innovation for Zara as the research collected will enable them to get it correct the first time and putting them at a competitor advantage.

Zara's customers love to shop in-store, as they can feel the material of garments, try different items on together to make an outfit and leave the store with their purchases in hand. However, Zara's customers frequently browse online/ via the app then visit the store to view the item before purchasing but commonly never making the purchase. Leading to customers shopping elsewhere and being disappointed. If 'Find my item' was put in on Zara's app it would enable the customers to find the item easier, due to it being a navigation app. The customer would select the item on the app using their own smartphone in the store, then the app will navigate them to that item; the correct size too. Giving them a temporary competitive advantage.

"Time-poor consumers often don't feel they have time to visit a store, wait for an assistant to provide them with the information they need, shop around the alternatives and potentially wait in a long queue for their item. This is one of the big ways online shopping is winning over bricks and mortar." (Jones 2016) This demonstrates the threat that online stores have on retailers as consumers have the option to leisurely shop at home and live too hectic lives to visit retail stores. With the app being developed this will influence customers to return to store. Reimers and Chao stated "actual product purchase and the time taken to do so are defining

characteristics of utilitarian shopping. Utilitarian shoppers seek to purchase products in an efficient, timely manner to achieve their goals with a minimum irritation." (Reimers, Chao 2014)

Many retailers now have apps which are available to download on the customers smartphone. However, the footfall has increased since 2015 due to the development of in-store technologies and customers being able to use their mobile device to help them out in-store. There has been around a '17% increase in footfall' relating to the personalisation of the shopping experience. Also, a '11% increase' for staff helping customers to navigate their way around or a virtual map is available on one of the stores devices. Another way

the footfall in stores will increase is by 'introducing Wi-Fi, this should help increase it by 11%'. (Statista 2015) Enabling the customers to use the Wi-Fi to browse their products online whilst shopping, also for them to talk to friends and family about products. If retailers develop technology for customers to use in store this will increase the footfall even more, as this will make the customers experience a lot more convenient, just like using the retail app.

On the other hand, many customers avoid shopping in the Zara store due to never being able to find the item. Many customers complaining about the mess, or being unable to find a member of staff to help. "As hard as we try to keep everything under control, it can only take a few minutes for a new wave of customers to destroy a pristine section. Hangers that were carefully spaced out are now on the floor, shoes that stood neatly in a line according to size have been knocked down, and the stack of perfectly folded shirts have been pushed aside to create an impromptu seating area for bored children, friends and partners." The statement suggesting the need for the Navigation app a much more of a necessity. Allowing them to have a temporary competitive advantage against competitors.

Infrastructure in nursing homes and public infrastructure in the UK and China,

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Nowadays, the trend of aging is becoming more and more popular in both China and the UK. It is a big issue to protect the life and safety of the elderly. Public infrastructures for the elderly are very important, for the elderly, how to choose a suitable nursing home is very important as well. This report can help the elderly to choose nursing homes and let local governments to know which aspect needs to be improved.

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Due to the trend of aging, more and more elderly choose live in nursing home. So the security of nursing homes is becoming more and more focus. This report is about nursing homes and public infrastructure of the elderly in both China and the UK.

Memory Tracks: Song-task association in dementia care

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This poster presents a multi-shareholder investigation into the effects of music to aid the day to day care of dementia suffers. The core element of this is a tablet or smartphone app that connects daily events to the patient's choice of reminiscence music. Further development of Memory Tracks will utilise behavioural or physical triggers to create a contextual, more immersive user experience.

Music builds long term associative memories, often closely tied to emotions which can be more resilient to loss than other types of memory. Memory Tracks, a care platform can provides a personalised selection of music tailored to an individual Dementia patient's routine, their family, carers and needs. The core element of this is a tablet or smartphone app that connects daily events to the patient's choice of reminiscence music. In the initial development these triggers are activated by their carer or by the user. Further development of Memory Tracks will utilise behavioural or physical triggers to create a contextual, more immersive user experience. The project investigates the wider literature on music and memory and uses case studies and data gathered at Pendine Park and Soundvault HQ. These data with early onset dementia patients and a wider conversation on memory and music. This will help to establish the connections and validity of Memory tracks platform and guide its development.

Networking in HE

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The review of the literature reveals the contestation of existing knowledge of networking, especially on its definition, nature and origin

I undertake a critical review of the literature that grounds the study of networking in Higher education (HE). My review focuses on the different concepts of networking, an exploration of the various roots of 'networking' as a phrase and its associated meaning in the academic literature. It illustrates the diverse ways in which networking has emerged and evolved, drawing on a variety of disciplinary perspectives, such as information technology, telecommunications, management, education and other. The application of the networking varies, being mainly dependent on the field of study and the era/period. Following this, a collective classification of the different meanings, benefits and challenges of networking is developed. The concept is explored, drawing on the critiques of current network studies and alternative approaches are considered offered by critical HE scholars, with specific focus on the implications of the current study.

New times, new crimes how seafarers are affected by criminalisation.

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Modern seafarers run the risk of criminal prosecution as a result of actions they undertake on board vessels as part of their jobs. The risk is small, but can have disproportionate consequences for the individual, and the fear of being caught up in criminal processes affects over 80% of seafarers surveyed (Seafarers Rights International, 2016). The purpose of this presentation is to explore the features of the seafarers' experience which make them more vulnerable to criminalisation within the context of an increasingly globalised workforce.

Criminalisation is a broad term which can either apply to specific actions or groups of people and can change over time. In general, as societies develop, more criminal offences are created, this does not mean that there are necessarily more criminals though. Traditionally seafaring has had very little regulation but that is changing fast.

There are over a million seafarers world-wide, working on cargo vessels, tankers and cruise ships, providing us with goods, fuel and leisure. The world crew comes from a variety of nations with the top five crew supplier countries being: China, the Philippines, the Russian Federation, the Ukraine and India. Whereas, the top five ship-owning nations are: Greece, Japan, China Singapore and the USA. Most ships do not fly the flag of the owner nation but are 'flagged out' to nations such as Panama, Liberia and the Marshall Islands. Regulations are, in general, enforced by Port State Authorities inspecting or investigating visiting ships. So, beyond the international nature of the work itself, there is a complex set of relationships between national identities. This stage of the research is involved with fully exploring the issues as they relate to criminalisation of seafarers. Included in this work is looking at recent regulations and the way they are enforced. An assessment of the way in which seafarers 'fit' into recent explanations of criminalisation theory. Part of this assessment is based on studies already completed about the lives of seafarers and a comparison between the experiences of people facing prosecution in other industries, specifically, medical prosecutions in the UK. The consequences of criminalisation for the individual seafarer can be extreme and as (Seafarers Rights International, 2016) found, typically the human rights of the seafarer were not respected. The fear of criminalisation is having an effect on the industry in terms of recruitment, promotion and retention. It is also affecting how seafarers do their jobs, how they think about themselves and their plans to stay in the industry. (Seafarers Rights International, 2016)

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Public facilities for elderly compare between the UK and China

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Aging society is a big problem in this world. It means elderly community is more and more important. However, some public facilities are friendly, and other not. Because two countries have different ideals of designing. Compare public facilities in two shopping malls in two countries to improve the quality of the public facilities.

Some old people realise public facilities are important. However, some public facilities are not friendly. Comparing two shopping malls in the UK and China to improve the quality of the public facilities. For better service, some people will be given the questionnaire and collect the data to give some suggestion to the staff in the shopping malls. Improve the material conditions of residential environment and pleasant for everyone happiness life is necessary, for the elderly, the centre of the residential environment is actually all their activity. The elderly residential environment is not only providing a shelter for them, and provide them with a leisure, entertainment, fitness, communication space environment. At present, the residential environment in most of the cities in China have yet to adapt to ageing of occurring and make corresponding changes. In the old residential environment, outdoor life for the elderly, the planning and design of public facilities is obvious imperfect, short of the use requirements of old people, greatly limits the barriers of space environment of the social participation of old people, affected the elderly living standards and the improvement of quality of life.

Public Parks between UK and China

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This report identifies the differences of parks between the UK and China. Representative parks in each country are identified. Views are obtained by interviewing students, relevant experts and collecting questionnaire responses from students to make a specific conclusion to identify the unique designing styles of each country's park. The most critical goal of this report is giving public positive aspects of parks then encouraging them to be close to nature and visit parks more frequently than before and consider the use of plants to improve air quality.

Nowadays, there are increasingly more parks in China and the UK (Nationalparks, nd). These special locations provide opportunities for tourists and citizens to relax and enjoy the beautiful views of nature. However, comparing the designing ideas and theories of parks between the UK and China, each of them embodies the culture and unique styles with special layout and vegetation to fulfill people's requirements.

Parks are important for citizens' daily life and recreation, and relevant infrastructures can be used by people to keep fit (EKU, nd). Some research reported that a walk in the parks can decrease the risk of heart disease and blood pressure (NHS, 2016). Fundamentally, parks can make people relax, take exercises and enjoy views and feel close to nature. Hence, the importance of parks has been acknowledged by the public and given sufficient consideration by governments. For example, according to the Royal Parks and Other Open Spaces Regulations (2012), this legislation has regulated that all parks must contain the function for people to relax and sufficient common areas. Considering plants are the most elements in parks, the function of these key elements can improve the whole environment especially to improve the air quality.

Raising Revenue at the Mary Rose Museum, Portsmouth

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Maximising visitor secondary spend and raising revenue is an ongoing challenge for tourist attractions, particularly in the heritage-cultural sector. This research focuses on the case study of the Mary Rose Museum, and a mix of qualitative and quantitative questionnaires and observations were conducted. This has built a comprehensive insight of the museum's retail environment and potential changes that could be implemented to help improve revenue. This research is to be developed further as part of dissertation work, incorporating the views of other visitor attractions and being expanded to cover other revenue streams, as well as shops.

The financial sustainability of museums, such as the Mary Rose Museum, is under increasingly scrutiny. This Retail Evaluation Project identifies means to help maximise revenue at heritage attractions by analysing how visitors behave at the Mary Rose Museum's shop. Whilst the shop is largely successful, the conversion rate of visitors to retail purchasers at the Mary Rose Museum is lower than average for the sector. Identifying potential causes and possible solutions for this is the crux of this research.

200 qualitative observations were undertaken over two stages to examine visitor behaviour in the Mary Rose's shop, identifying trends and patterns to suggest improvements and study the impacts of preliminary changes that were made to product placement based upon initial study findings. In addition, 30 pilot questionnaires (which utilised both quantitative and qualitative questions to help respondents justify their answers) were completed to help compliment the findings from the observations.

Findings support pre-existing understanding that the conversion rate of museum visitors to shop customers was lower than the industry average. Initial changes to product positioning were seen to have a positive effect. Interestingly, despite the lower than average conversion rating, the majority of respondents were overwhelmingly positive about the retail environment and its products. This suggests that any factors discouraging spend are largely subconscious. It is proposed that these could be related to museum fatigue and the atmospheric contrasts between the museum and the shop. These will be investigated further when the project is continued as part of a wider study into secondary spend in the heritage tourism sector, attempting to explain the reasons behind the initial findings. This research is significant as, whilst individual elements and factors have been investigated, there is currently no study that comprehensively evaluates visitor behaviour, spending and possible influencing factors of this at a tourist attraction.

Research into the creation of MyStordrobe app for retailers

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This research investigates if there is a gap in the market for an app to recognise, store and sell apparel that can aid high street retailers. Secondary research through online publications and articles recognises the poor service being offered by high street retailers as well as current solutions. Primary research, in the form of a survey, identified the demand for this app with 87% stating that they would use an app with these features. Thus, the findings show the need for an app that can create less and less friction in the shopping experience

This proposal investigates if the creation of a universal barcode scanning app to recognise, store and sell apparel can aid high street retailers. Jinks, D. states "recent studies indicate that between 2020 and 2030 half the UK's existing shop premises will have disappeared. 100,000 stores will close, leaving just 120,000 shops on our high street and that's because by 2030 e-commerce will account for 40% of UK retail sales" (2016). Research also recognises the need for technology to provide accessible solutions "the ease of access a mobile app possesses appeals to most consumers along with another desired demand from consumers which is personalization. A recent study shows 27% of consumers expect to purchase more via smart phones" (Accenture.com, 2017). The aim of this proposal is to research if the creation of this app can take advantage of this gap in the market and create what Sheikh (2017) labels as "consumers want less and less friction".

The secondary research focused on case studies of existing apps used by retailers to aid the shopping experience. The Waitrose mobile app called 'Quick Check, Scan as you shop' has already been adopted by its customers and seen benefits to the parent company John Lewis 'By introducing this app via their most recent store launch, the store is already ahead of budget by 50% (internetretailing.com). In addition, the app has been recognised for its use 'The app has the barcode scanning facility for ease of use and convenience that was designed to be clear and simple' (designweek.co.uk, 2016). Another case study on H&M's Scan and Buy app concept highlighted the benefits it has to the retailer 'the concept is part of the brands move in trying to become more seamless and offering a better consumer experience, the use of the app is to increase awareness and sales offering more convenience and better communication (Taylor and Levin, 2014). These case studies identify that in the current market there is potential for a universal app to aid all high street retailers.

The case study research was supported by a survey to 38 participants. This survey highlighted that 50% of respondents were aware of barcode scanning technology and that 65.8% of participants currently use their mobile phone to shop. When asked if a scanning app to recognise, store and sell apparel would be beneficial and entice the participant to visit the stores more, 74% replied positively, with 87% stating that they would use an app with these features. Thus, both the primary and secondary research undertaken shows the potential for the creation of an app to recognise, store and sell apparel is needed and a gap in the market does exist.

Research the difference between the UK and China for construction site

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Due to the difference of cultural between China and the UK, these differences may change construction skills in the field of building construction. This investigation is making more people aware of the differences between UK and Chinese construction, and adopting more effective methods of construction to reduce rework and improve safety. The importance of safety in the construction of buildings can not be ignored. Nowadays, the booming of the construction market will promote the growth of the society and economy, but also bring safety problems to construction workers.

Due to the difference of cultural between China and the United Kingdom, these differences may change construction skills in the field of building construction. Therefore, this investigation is making more people aware of the differences between UK and Chinese construction, and adopting more effective methods of construction to reduce rework and improve safety.

Construction industry is one of the important industries of the national economy, and it is also a high-risk industry. For example, 80,000 workers suffering from work-related ill health each year (LFS, 2016). The purpose is to achieve high economic benefits, so developing construction equipment that can reduce the construction accident.

The aim of this report is researching the difference between Chinese and UK in the field of the construction site, so workers could learn safe and efficient equipment use through this report.

1. Research the information about the health and safety within construction industry in both China and the UK.
2. Develop Interview and Questionnaires to primary data
3. Discover Problems and Expose Hidden Dangers of different construction tools.
4. Enhance Employee Safety Awareness, by preparing the report.
5. Obtain independent evaluation of the report.

Residential Dwellings

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This proposal is focusing on residential construction and the current methods that are used in Canada and the UK. Further research will be conducted on the future methods that have been developed in residential construction with a large focus on sustainability. The proposal highlights ways that information will be collected for primary and secondary sources. All the information gathered will be used to compare the two countries in the final research report.

1 Introduction

This proposal is for a report that would focus on the residential industry comparison between the United Kingdom and Canada. It will cover the similarities, differences, and sustainability aspects. The difficulties and the success of each country will be highlighted. All research is to determine if the two countries could benefit from each other.

1.1 Background

Canada and the United Kingdom Both have growing populations however Canada has more land for their population. The population density of the UK is 271 people per square kilometre where as in Canada it is 3.7 people per square kilometre. The large difference in population density is the driving cause for the difference in residential construction and needs between the 2 countries. Currently the UK is in a housing crisis because there just isn't enough places for people to live, where in Canada there is tons of space and plentiful resources but a lot smaller population.

1.2 Research Aim and Objectives

There are 3 main goals of the research paper and those are the design and construction style of housing, the positives and negatives of housing in each country, and the sustainability housing goals in each country. These goals of research will start by looking at each country individually and then comparing the 2 countries together and seeing if one country could benefit from the others method. Overall its about finding the strengths and weaknesses from both countries in the residential industry and see if they have found ways to fix them, or if there are ways that they haven't yet tried.

4 Conclusion

The point of the research is to hopefully gain a better understanding of residential construction. This will be done by learning about current methods of construction and future ones while also. Lots of comparison will be made between the two countries and their residential construction and goals.

Self driving

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The main goal of this project is to find out how different generations feel about autonomous vehicles. This will be done by analysing surveys, interviews and research.

1. Introduction

The reason behind this topic is trying to find out how people feel about autonomous vehicles, to see if people who work with vehicles see it as a good thing or do people feel it is a risk to jobs. To see if the younger generation feels better about self driving vehicles or do all sides see autonomous vehicles as a risk.

1.1. Background

This subject is one of the most important subjects that people will face; this topic needs people to look into it as millions of jobs are at risk (Lee, 2015). As covered here (CNBC, 2017) CNBC report that over twenty-five thousand jobs a month in the USA will be lost due to self driving cars. If people start to lose jobs at a high rate this could cause many problems to lack of work to people not having the money needed to live. This report will look at all sides of self driving cars to see if it is a good thing for people or could it be one of the biggest risks to people who rely on driving as a job.

1.2 Research Aim and Objectives

Aim

To see how the public feel about autonomous cars and people with driving related jobs, with a side aim to see the difference of opinion between the younger generation (18-30) and older (31+).

Objectives

1. Literature, look into the subject to see all sides of opinion around self driving cars
2. Undertake a survey for the public, using questionnaires and interviews around autonomous cars and around who the surveyor is
3. Analysis of primary data to find the answer to how people feel
4. Build comparison table around the analysis of primary and secondary data
5. Build the conclusion report on autonomous cars
6. independent person to look over report

Sustainable Building

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The following is proposal for a research paper on sustainability in the built environment, as well as comparing the UK and Canada in this respect. Research has been completed in order to investigate and further the education of the author as it pertains to the subject.

The effectiveness of opportunistic health checks within the workplace

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The purpose of this research is to investigate the effectiveness of opportunistic health checks within the workplace. This is with the specific purpose of 1) identifying undiagnosed cardiovascular disease risk factors in individuals within and outside of the NHS check age range (40 - 75) and 2) whether individuals identified with cardiovascular disease risk factors visit their General Practitioner as advised during the healthy conversation at the opportunistic health check.

Cardiovascular disease (CVD) impacts the lives of over 4 million people in England, causing 36% of deaths (approximately 170 000 people) a year. CVD is also responsible for 20% of all hospital admissions (Department of Health 2008), and in addition, data from the NHS comparators show an average of under diagnosis rate of 50% for major CVD risk factors (NHS 2009).

Modelling by the Department of Health in England suggests that up to 9500 heart attacks and strokes, and 2000 deaths could be prevented each year by primary cardiovascular screening and subsequent risk management in people between the ages of 40 and 74 (Department of Health 2008). Identification and management of CVD risk factors in the population is therefore an important Public Health priority.

To address CVD risk factors at a population level in England, the National Health Check Programme aims to provide a routine, structured clinical assessment and management system for adults aged 40-74 years without pre-existing diabetes or CVD. Criticism has been levelled at the uptake of the programme, with an uptake reported to be only 50% of the eligible population. Strategies to increase the uptake of health checks have included the use of postal invitation and opportunistic health checks within non-clinical and community based settings. Opportunistic health checks provided within a community setting such as supermarkets, workplaces, libraries and places of worship enable an alternative setting to the traditional clinical and medical environments.

Effectiveness of this type of community based intervention includes strengths such as convenience and accessibility and the perceived choice in whether or not to take up the opportunity. Use of workplaces has also been reported to provide some participants with a sense of not using their free time, which was felt to benefit both employer and employee.

There is an untapped potential for opportunistic health checks to increase the reach of the NHS health check by identifying undiagnosed CVD risk factors in individuals both within and outside of the NHS health check age range. Therefore the aim of this research is to implement opportunistic health checks within the workplace to evaluate uptake of the program and whether they are effective in prompting people identified with cardiovascular risk factors to access ongoing clinical management via their GP.

The Impact of building computers between generations

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i will be presenting the impact and differences on the building of computers over time

Wheelchair rugby sportswear - perspective of the players

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Wheelchair rugby is a relatively new sport that has been gaining popularity with athletes with disabilities. Unfortunately, there is not yet a sportswear kit available for this specific sport. This is a problematic issue as the inadequacy of the garments worn by players during the games impacts their performance, comfort and safety.

The main objective of this research is to present some requirements that players have for a sportswear kit specific for wheelchair rugby.

The data presented was collected through two questionnaires: (i) an initial one where more general information was gathered and (ii) a second one where some design recommendations for the items of sportswear were presented.

The results demonstrated that the players prefer durable and resistant materials that are also breathable and easy to maintain. The gloves are one of the major concerns and they are the item of sportswear that impact performance the most.

Based on these opinions it will be possible to develop several prototypes of a complete sportswear kit that takes in consideration all the users' requirements.

Sports-wear is a specialist segment of the clothing industry that should also promote the inclusivity of people with disabilities and take into consideration user-centered design principles. In the sports-wear field, users search for comfort, quality, durability, and style, but comfort and fit are presumably the two most important features in this type of clothing.

As in many other sports, in wheelchair Rugby athletes are always looking to improve their performance, which is influenced by both individual components and team components to score points for the team.

The unavailability of specialised sportswear for wheelchair rugby leads to the use of inappropriate garments, designed for able-bodied users, compromising not only performance, but also safety and comfort.

This poster presents the results of two questionnaires, specifically designed for this project, that intended to obtain information on the needs and requirements of the end-users and on their opinions about design recommendations suggested by the team.

The results of both questionnaires point out that most of the problems occur with the gloves. Gloves are an important part of the equipment for wheelchair rugby players, as they directly influence performance. More than protecting the hands, the gloves are used to have a better grip while maneuvering the chair and handling the ball. As no pair of gloves, specific for wheelchair rugby has been introduced in the market yet, athletes must use other types of gloves include adaptation to make the gloves more suitable for their needs, such as adding materials like glue, tape or extra rubber for obtaining sufficient grip on the hand rims and ball. Nonetheless, tops and bottoms also present some problems, especially in terms of fit and in the ability to regulate the core body temperature.

When presented in the design recommendations, athletes seemed to agree with the majority of the proposed designs and say they would be happy to have these improvements made to their current sports-wear.

The information collected in these questionnaires will be used to the development of prototypes of the entire wheelchair rugby sportswear kit (gloves, tops and bottoms). A few examples of important features include the use of soft, sweat-absorbent, and breathable materials and the consideration of key anthropometric measurements.