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Book of Abstracts

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SPARC 2015 Book of Abstracts



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Preface

Welcome to the Book of Abstracts for the 2015 SPARC conference. With contributions from over 130 presenters, these abstracts provide a taster of the research strengths of Salford's postgraduate community, and provide delegates with a reference point for networking and initiating critical debate. Postgraduates have a vital role to play in the research culture of the university, and the annual SPARC conference provides a dynamic forum for research students and staff to discuss new knowledge and form connections across disciplines that will open up areas for the future. We hope you enjoy taking part.

SPARC is part of a programme of personal and professional development opportunities offered to all postgraduate researchers at Salford. More details about this programme are available on our website www.pg.salford.ac.uk. You can also follow us at @SalfordPGRs.

Prof Yiu Lam

Director of Postgraduate Research

University of Salford

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Performativities: Practice, Music, Language

Durational Writing Actions

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Abstract

Considering the work of language-centered performance art, this paper draws upon practice-led research into durational writing activities in my performance practice.

I will explore the task of live writing through graphic mark making and phonic mouthings using two performances, NAPE (2013) and SCAW (2014), that were presented in the context of contemporary performance art. I will develop an area of poetic practice that focuses on live unsighted writing and durational sound poetry as task-based actions that bring attention to the poetics of performance art. In NAPE, a 6 hour install-action, I worked with actions of unsighted, semi-automatic writing as a task-based activity that resulted in illegible and partly-legible visual writing. In SCAW, an 8 hour performance, I presented repetitive phonic explorations of single word utterances for 3 hours. The permutational nature of this live writing (graphic and phonic) investigates an unconventional approach to poetry where writing, reading, speaking and listening are located within a visual art context.

Drawing upon the theories of and practices of Bob Cobbing, Craig Dworkin, Steve McCaffery, Johanna Drucker & Kristine Stiles, this paper will position language-centered performance art in parallel to contemporary poetry.

Keywords:

Automatic writing, duration, illegibility, performance art, phonic

Lee Jones and the Adelphi Laptop Ensemble: Collaborative Composition

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Abstract

My research explores the need for alternative compositional resources within jazz and improvised music, based on my own experience as a student and working musician.

Centering around five musical elements:

- 1) Harmony; through the use of alternate guitar tunings as a substitute for standard jazz chord voicings and progressions.
- 2) Through-composed form; exploring the use of musical form as a process rather than a composition. There are three stages with the ensemble, however the different stages can overlap and be reversed if directed.
 - Material generation; where the guitar acts as a stimulus, providing material which is recorded
 - Improvisation; through a call and response between the processed laptop material and the guitar imitating this
 - Refinement; once enough material has been recorded, the guitar lays out and allows the laptops to develop an ensemble texture of their own.
- 3) Challenging the binary between live and recorded material which often limits the way in which musical settings are conceived. The performance process will transition through the following stages:
 - Purely live material
 - Pre-recorded and live together
 - Purely pre-recorded
- 4) Improvisation; jazz often awards superiority to improvisation over composition. This is flawed as much jazz "improvisation" is in fact comprised of musical stock phrases learnt from records or taught and rehearsed within music college. My collaborative work aims to bring these two oppositions closer together, freely moving between:
 - Purely composed
 - Improvised/composed
 - Purely improvised
- 5) The role of the score; using conventional notation to transcribe these sounds is problematic as it is difficult to convey these sounds accurately. Therefore, this will be displayed as graphical illustrations that outline the prescriptive and descriptive roles of the score.

Keywords

Composition, Guitar, Improvisation, Jazz, Laptops

Music Technology and the Constructivist Paradigm

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Abstract

The dominant educational paradigm of constructivism has shifted focus away from instructive problem-solving and towards creative problem-finding. This is reflected in the increasing popularity of student-directed learning and the meaningful application of emerging technologies in schools. My research focuses upon the effective use of interactive technologies in music education, the initial development of such systems, and their continuous evaluation within academic environments. In this presentation, I will discuss emerging music technologies and their relevance to prevailing educational philosophy, and also how these could be applied to ensure that meaningful music-making experiences are accessible by all students.

As part of the presentation, I will give a short demonstration of one of my developing composing environments, an intuitive audiovisual system informed by my past experience of teaching music using graphic scores. The system consists of a blank 'canvas' window, operated via touchscreen or mouse, and a variety of options which change the parameters of how the canvas responds. This system can be played responsively in real-time, like a musical instrument, or used to create and edit compositions, like a sequencer. Key design features of this system are that it incorporates audible, visual and kinaesthetic feedback, and offers versatility in terms of how the user interacts with it. I will be discussing its potential as an educational resource and my aspirations for its development over the course of my research project.

Keywords

Constructivism, education, interactive, music, technology

The Pre-existing New

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Abstract

With reference to Anthony Burgess (1917-1993), I will discuss literary biography and its traditions, offering a ficto-biographical approach, investigating creativity through creativity rather than a functionalist chronological interpretation. Thus, appropriating the subject's stylistic techniques, themes, and characters, in an attempt to represent more effectively the author's life and work.

Keywords

Burgess, Creative Writing, ficto-biography, literary biography

The Pre-existing New

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Abstract

I will explore the initial stages of an emerging performance ensemble contemplating the relationship between the performance ensemble and the philosophy of Jean-Luc Nancy (2000). An everyday object, paper, functions as the starting point for exploration of the individual and collective in performance, from which performative fragments can be created forming an interaction with the philosophy of plural identity as proposed by Nancy.

Keywords

Creative Writing, Contemporary Task Based Performance, English Literature Film

Issues in the Subtitling of Wordplay and Satire: challenges and strategies

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Abstract

A challenging task for translators is dealing with humour. Humour is closely connected to the language and culture in which it is produced. Hence, and any attempt to translate a humorous text that contains wordplay or satire should take into consideration a range of linguistic and cultural factors. Humour in these two types is often bound to a particular culture or even to a specific group of people within the culture. In addition, some types of humour such as wordplay rely heavily on linguistic features of the source language, which necessitates a complicated translation because languages differ in their grammatical and semantic structures. The present paper investigates issues in subtitling of wordplay and satire in the American sitcom, *Seinfeld*. The study also identifies the subtitling strategies used by Arabic translators to solve the technical, linguistic and cultural problems of translating these two types, and it uncovers the factors that might affect the subtitlers' decisions. The study draws on the General Theory of Verbal Humour (GTVH; Attardo & Raskin 1991), Attardo's (2002) model of analysing and translating humour, and Pedersen's (2005) model of subtitling extra-linguistic culture-bound references.

The analysis of the data showed that there are four types of wordplay used in the selected episodes, namely paronymy, homonymy, initialism, and spoonerism. And accordingly, a variety of strategies was used by the Arab subtitler to fulfil the function of each type of wordplay in the ST. The analysis also revealed that different parameters (factors) might affect the subtitlers' choices. With regard to the subtitling of satire, the examination of the data showed that there were two types of satire: language-based satire and culturally-based satire. The subtitlers utilised various interventional strategies to convey the satirical elements; the utilisation of these techniques was affected by different factors, which governed the subtitlers' task.

Keywords: Subtitling, wordplay, satire, humorous effects, extra-linguistic culture-bound references

Intercultural Pragmatic Study of Request Strategies

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Abstract

Intercultural communication is a burden task for the two participants. On the one hand, the non-native speaker does his/her best to be accepted in the host community by attempting to express his/her intention efficiently. On the other hand, the native speaker does his best either to interpret a vague linguistic expression or to tolerate unintentional impolite behaviour. Intercultural pragmatics is an area of research within the scope of intercultural communication. It studies successful and unsuccessful intercultural communication, taking into consideration both social and cognitive contextual factors that lie behind language usage. This study aims at exploring the intercultural communication that both Iraqis and English native speakers engage in. Iraqi students in the United Kingdom, who carry on their post graduate study, are of a relatively high number. In response to the demands of their residence in this country, they engage in academic discussions, develop social relations and friendships that commit them to different transactions. These operations can be based on asking for or responding to a particular request. Some of these requests can be of high demand in a way they are supposed to be mitigated. Consequently, this study is an empirical and interdisciplinary investigation in the sense that it incorporates three areas: the speech act of request, intercultural pragmatics, and the variable polite strategies adopted either for mitigating the threat of a request or for opting out unfavourable one. The methodology of this study is based on distributing two types of questionnaires, one of them is an online survey among students followed by discourse completion test, and the other one is among supervisors and university employees who are in frequent contact with those students. Questions will also be asked about their attitudes, perceptions and reflections on the level of proficiency Iraqis have achieved in performing polite request style whether in face to face communication or email exchanges. Leech's (2014) model of GSP with his analysis of request strategies is going to be adopted in data analysis. Furthermore, different social variables will be taken into consideration.

Keywords

Intercultural communication, Intercultural pragmatics, Politeness, Speech act, Indirect request strategies

Business: Digital media; Innovation; Retail

Digital Marketing and Football: a case study of Salford City FC

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Abstract

In 2014, Ex-Manchester United players, The “Class of ‘92” purchased Salford City FC with ambitions to turn it into the “world’s first digital, ‘always on’ football club, giving fans unrivalled access to behind-the-scenes activities and up-to-the-minute information”.

Salford City FC creates the basis for a case study in the field of digital marketing and football. There are currently no other single case studies that examine the effects of digital marketing on the business of football. The situation and access to this case provides new insight and contribution to the knowledge of digital marketing and football. Several authors including McCarthy et al. (2014) call for new studies evaluating the effects of digital media and football clubs as brands. The case study will be carried out with a series of interviews and using a netnography approach. The groups for this primary data capture include people with digital marketing responsibility in football, representatives of Salford FC and fans of Salford FC. These main groups will form the core of the data collection.

The presentation will focus on the case study progress so far. This includes analysis of the literature and primary data collected so far. The specific groups that are relevant to Salford FC are considered in relation to the role of digital marketing and the brand of the football club. The theoretical contribution to the research on this evolving topic and its wider relevance to the business of football will also be presented.

Keywords

Digital, football, marketing, Salford

Talk vs Tell: contrasting social media usage by government officials and emerging citizens. The Nigerian experience.

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Abstract

This research addresses social media usage and its potential to reconfigure popular democratic activity. The lack of engagement between media and communication studies and critical political economy has led to insufficient understanding of the role social media could play in shaping democratic participation. The aim of this thesis is to bridge this gap using research into the views of both those in Government, ministries, democratic institutions, IT agencies, and emerging citizen leaders, in Nigeria.

Drawing upon power theories, communications theories, and democratic theories, and enriched with interview and questionnaire materials, this research has revealed two closely connected themes: firstly a form of online participatory democracy in Nigeria which could give voice to emerging political leaders, and secondly how citizens usage of social media applications is impacting upon government officials, and the impact of government upon such citizens.

Critical research in an interpretive style was chosen as the guiding paradigm, and a qualitative data approach was used to analyse and identify themes using Nvivo software. Phenomenology was chosen as the qualitative inquiry. The interviews were conducted with Government officials in three federal Ministries, four Government IT agencies, the National Electoral Commission, Human right commission and National Assembly. The key finding of the research is that the transparency of social media usage can enhance political participation such as freedom of expression, freedom of association, election monitoring and citizens/government relationship. Based on these findings, the study suggested innovate way of exploiting ICT for political participation through implementation of FrontlineSMS mobile phone application and community radio.

Keywords

Social media, democracy, Nigeria, communications

Investigating and Prosecuting Cyber criminals in Nigeria: Developing a novel approach to Investigation.

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Abstract

Cybercriminals in Nigeria commonly known as “419 scammers”; a word coined from the Nigerian criminal code that penalize people from obtaining under false pretence cost the Nigerian consumer \$13.5 billion dollars in losses in 2012 (Sesan et al). Despite efforts by the Nigerian Government to tackle it through the activities of law enforcement agencies (LEA), cybercriminals continue to operate to the detriment of the country. Therefore, a novel approach to investigation technique that balances the current challenges to investigating and prosecuting cybercriminals should be researched upon. Rather than focus on the negative impact and the economic cost of cybercrime, this study seeks to do explore the use of open source intelligence (OSINT) as a tool and technique in investigating cybercrime. The main aim would be to research and develop an approach or framework that could be used within the Nigerian context to curtail the activities of cybercriminals. The study will use qualitative data through interview as a primary source of data because the nature of the study requires collection of original data from the relevant stakeholders in Nigeria such as Law Enforcement Agencies (LEA), Members of Parliaments and Internet Service Providers. There is relatively few or no research done on OSINT methods used to investigate cybercriminals in Nigeria which has led to a huge gap of knowledge between the research community and policy makers. Pursuing a research study in the field of OSINT in relation to cybercrime activities in Nigeria would add knowledge to the ever evolving scope of cybercrime. It would also enable policy makers, investigators and prosecutors to be more knowledgeable of international best practices which would impact positively in the discharge of their duties.

Keywords

Cybercrime, Investigation, Prosecution, Open Source Intelligence, Nigeria

Exploring the Nature of Innovation in Small Firms in Nigeria

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Abstract

Literature regarding innovation is dominated by a Western perspective where the concept and its academic discussions originated. Because of this dominance innovation is often conceptualized as emanating from certain inputs (e.g R&D) and assuming the availability of certain resources (e.g skilled personnel and financial resources) - thereby implying a universal trajectory of innovation. However, an important challenge to researcher on innovation in developing countries is to distil literature, dominated by Western perspective of the concept, to capture the intricacies of the concept and empirically test it in a different context – developing nations. While several studies have been carried out on innovation in developed nations, empirical study of this concept has thus been scarce in the developing nation, particularly Nigeria. Existing studies have adopted wholesale Western operationalization of the concept, which has virtually no relevance to developing countries context. This study intends to bridge that knowledge gap by contextualizing innovation to developing countries. In this explorative study the grounded theory methodology is adopted. This is to enable generation of descriptive and explanatory theory and development of theoretical account grounded in empirical data. This is particularly important where a concept is to be examined in a new context. Initial findings indicate that innovation appears to be cloning of imported or multinational firms' products and the motivation for this is the relatively unaffordable price of imported/multinational to the target class, people at the bottom of the pyramid. However, the data establishes that these processes are heavily influenced by internal and external business eco system within this context.

Keywords

Innovation, Developing countries, Small firms, Grounded theory, Eco system

Exploring loyalty card programmes effects on consumers within the UK retail gambling industry

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Abstract

Over the last ten years, the proportion of retail organisations engaging in loyalty schemes has risen significantly (Wood, 1998; Davies, 1998, Byrom et al., 2001) with some 40 million cards in circulation. Research also suggests that nearly 95% of UK consumers have at least one loyalty card with 78% being members of two or more programs (Meyer-Waarden et al., 2009; 2013; Cary, 2013).

Despite extensive research into the benefits of Electronic Loyalty Schemes, studies in the field of loyalty programs still remain rare and incomplete with the exceptions of (Hypermarkets & Supermarkets, Sharp and Sharp, 1997; Fuel retail industry, Wright et al. 1998; Tourism & Airline industry, Martín et al. 2011; Apparel clothing industry, Du Toit and Cant, 2012) and, there remains a gap in the real effects of loyalty programs on consumers specifically within potentially harmful retail experiences such as the retail gambling industry.

Through a social marketing lens, this study therefore seeks to critically explore loyalty programs' effects and determinants on consumers with specific reference to the UK retail gambling industry. The research is aimed at advancing the area by examining dynamic post-reward effects on consumer behaviour that were or are still in a continuous loyalty program or scheme. By rethinking existing narratives, the paper will argue that there is a relationship between loyalty programs and effects such as dependency, problem gambling and even harm spread among consumers engaged in loyalty programs in the gambling industry.

Keywords

Consumers, Customer Relationship Management, Effects, Gambling, Loyalty programs

Design Factors-Customer Behaviour Relationship: The Mediating Role of Emotions and Cognition

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Abstract

Although the role of retail environment in general in affecting customer behaviour is highly acknowledged by marketing scholars, the mechanism of the effect is still a promising area of research. This working paper presents a conceptual framework to investigate the effect of the design factors of a mall's shopping environment on customers' behaviour in the context of Jordan. With the stimulus-organism-response (SOR) model as a backbone, two competing mediation scenarios for emotion and cognition in this effect are posited. According to the first scenario, customer emotions and cognition are depicted to work independently in channelling the effect of design factors on customer behaviour, suggesting a one-step parallel mediation. In contrast, in accordance with the cognitive theory of emotions, this effect is posited to flow through a cognitive-emotional order of mediation, suggesting two-step sequential mediation. Accordingly and supported by the relevant literature, a conceptual model comprising nine research hypotheses is developed to be empirically tested in a further work. In order to test the suggested models, a questionnaire survey using mall intercept was administered to 1417 respondents in total. A dataset of 1028 valid responses obtained from a conveniently selected sample of mall customers is carried forward to the data analysis. Using AMOS-graphics, the data will be analysed following the two-step approach, according to which the measurement model is validated first and then the structural model is examined.

Keywords

Design factors, customer emotion, customer cognition

An exploration of the shifting fields of family and business: how Bourdieu's sociological theories can help us to understand family firms

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Abstract

This presentation consists of the literature review, research design, pilot study and preliminary results from the first 18 months of a three year PhD research project. The purpose of the research is to understand the extent to which Bourdieu's sociological theories of doxa, fields and habitus can be used to explore the concept of "familiness". The research goes on to explore how these aspects of "familiness" help or hinder innovation. The family businesses selected are those from the manufacturing sector of Greater Manchester. The research will assist scholars by identifying how sociological theories relate to innovation and therefore survival in family businesses. This research will ultimately contribute to policies supporting the longevity of family businesses in the Greater Manchester.

Keywords

Bourdieu, family business, innovation, manufacturing

Health Sciences

Why are myoelectric prostheses difficult to control?

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Abstract

Over recent years myoelectric prostheses (or so-called 'bionic hands') have been a familiar sight in the news. These devices allow users to control prosthetic hands through electrical (myoelectric) signals generated when muscles of the residual limb contract. The most modern prosthetic hands provide the user with a large range of grips, but despite advances in prosthetic hand design users still find these devices hard to control, and rejection rates are high.

Research by Saunders demonstrated that the introduction of uncertainty has highly detrimental effects on a user's ability to control a myoelectric prosthesis. It has also been established that delays in electro-mechanical systems make control difficult. Uncertainties are inherent to the prosthesis control chain, introduced, for example, through EMG signal acquisition via an often poorly fitted socket. Delays between intention (EMG signal creation) and action (prosthesis movement) are also inherent to myoelectric control, introduced by signal processing and inertia of the electro-mechanical components.

Modern prosthetic hands offer the potential to be highly functional, however if users cannot easily control them, widespread acceptance remains unlikely. I hope to characterise each aspect of the control system in order to establish the main causes of uncertainty and delays, as well as assess users' ability to control their EMG signal. It is my hypothesis that subjects who show poor ability to control the EMG signal and whose prosthesis controller can be characterised by high levels of uncertainty and delays, will demonstrate low levels of skill in using their prosthesis.

Keywords

Control, delay, EMG, skill, uncertainty

Mammography screening: factors affecting participation in the Lagos state program

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Abstract

Breast cancer is the most common cause of death among women worldwide. The WHO predicted that the incidence of breast cancer in developing countries would increase by 70% in 2030. Recent research has shown that there is an increase in the incidence of breast cancer among women in Nigeria. However, evidence has shown that most women that are eligible for mammography screening have not been participating at the free mammography screening program in Lagos state, Nigeria. This study aims to explore factors affecting participation in the mammography breast screening program in Lagos state, Nigeria. These factors would be used to provide solutions that would improve the mammography breast screening program participation.

The qualitative research methodology is the most appropriate approach, as it provides in-depth and rich information on the participants' views. Furthermore, few studies have been conducted on similar participants (that is, women in developing countries) to explore factors affecting participation in mammography screening program. Therefore, the author has moderate knowledge on the topic but more information might be generated from the study. The ethnographic approach may be the most appropriate for this research because it is used to study human behaviour and culture within distinct societal groups. The interview and focus group discussion data collection methods might be the most appropriate approach to gather data from this women due to the nature of the research questions. It is also a way of ensuring that the data generated is credible, by overcoming any inherent bias of choosing a single data collection method. The researcher intend to use the transcripts, and field notes to discover the major themes that describe the group's culture.

Keywords

Breast cancer, Breast screening, Mammogram, Mammography screening, women's participation

The role of the user in mammography machine design

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Abstract

Mammography is a way of detecting or eliminating breast cancer. The literature surrounding pain and discomfort associated with mammography is extensive. Factors which influence the women's experience have been found to include compression, communication and demeanor of the radiographer and the machine itself. A negative experience of mammography could deter a woman from subsequent screening, which could result in missed cancers. Therefore, it is vital that interventions are put in place that reduce the pain and discomfort felt by women.

Relevant mammography specific patents and literature will be critically reviewed to examine the role of the users, women and radiographers, in the design and development of mammography machine interventions. Patents and literature in which the mammography machine has been developed or redesigned highlight a highly engineer-biased approach. It is likely due to the prominent roles of engineering and medical physicists a large amount of the literature is deductive and quantitative in nature.

The presentation will address the issue of improving the experience of mammography by redesigning the equipment, with special attention to changing the way in which engineers and researchers view the role of the user in the process of redesign. It is argued that a qualitative, together with a traditional engineering approach to designing mammography machines will enable a more comprehensive understanding of the user perspective, which could in turn result in equipment that is easier to use and improves the woman's experience.

Keywords

Experience-Based Design, Mammography, Medical Equipment Design, User Involvement

Normalisations of muscle activity during gait in healthy adults

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Abstract

Introduction and aims: Normalisation is electromyography (EMG) processing to reduce variability. Different methods are available with no particular consensus on which normalisation to use or how to evaluate them [1]. This study aims to compare the effects of different normalisation schemes: peak, mean and maximum voluntary isometric contraction (MVIC) on inter-subject variability indicated by standard deviation (SD) and intra-subject, inter-session variability indicated by standard error of the measurement (SEM) of the EMG profiles recorded using surface and fine wire (FW) sensors.

Method: 9 healthy adults (age 35 ± 6 years, 4 females, height 1.67 ± 0.10 m, weight 71 ± 12 kg) gave consent to participate in the study. FW EMG of tibialis posterior (TP), tibialis anterior (TA) and medial gastrocnemius (MG) and surface EMG of TA and MG were recorded simultaneously during a MVIC task on a dynamometer and during walking at a self-selected speed following published guidelines [2,3]. SD and SEM were calculated between-participants and between-sessions.

Results: Mean and peak techniques reduced the SEM/mean from non-normalised signals in both conditions. The SD/mean calculated from MVIC caused higher variations (SD and SEM) when using surface sensors.

Discussion: Mean and peak values were effective to reduce inter-subject variability and the intra-subject variability between sessions. MVIC in this experimental setting was not as effective and in surface EMG it increased variability. Therefore, it would be recommended to use peak or mean for normalisation for normative database used in clinical gait analysis and intervention studies in healthy participants. However, they may not work well for some pathological groups where the magnitude of the signal is one of its important features.

Reference

- [1] Burden, AM, et al., 2003;13:519.
- [2] Chapman, A.R., et al., 2010. 20(1): p. 108-117.
- [3] Murley, G.S., et al., 2009. 19(2): p. E69-E77.

Keywords

Electromyography, muscle activity, lower limbs, normalisation

An Action Research approach to facilitating the integration of best practice in the Assessment and Management of Diabetes Related Lower Limb Problems in India

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Abstract

Context

India has a diabetes population that is growing and alongside this, the incidence of limb threatening foot problems is increasing. Foot health care provision does not yet meet this demand. In one locality in India, clinicians had an unstructured approach to foot health assessments resulting in poor adoption of evidence based guidelines from the West and a persistence of serious foot complications.

My research

Researchers explored the current issues and barriers related to achieving successful outcomes to diabetic foot complications in India. This was achieved by engaging clinicians in taking ownership of the problems and facilitating them through an action research cycle to identify solutions to action change in clinical practice. The methods of data collection were focus groups, observations, individual conversations and the use of modified Delphi method to achieve the individual objectives of each stage of the action research cycle. The data were analysed using a thematic framework.

Findings

Based on the participant's experiences and opinions, key themes were identified with the potential to inform the changes needed in clinical practice. Participants unanimously agreed that a formalised process of foot assessment should be developed and implemented. There was the perception that existing assessment tools did not take into account the local cultural, organizational and professional needs and there was a lack of ownership of any potential solution to the problem. Therefore, the final objective of this work was to facilitate the ownership, development and implementation of a foot health assessment tool for use in the Indian context.

Keywords

Diabetes; Focus groups; Foot health assessment; Participatory action research

Molecular Ecology & Conservation

Chromatophore changes in the brown shrimp: An exciting demonstration of a colourful research topic

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Abstract

The ability of animals to change their colour is an ecologically important behaviour. The wonderful variety of colour patterns shown by animals such as chameleons and cuttlefish for predator avoidance, mating and hunting are well known and fascinate many people. Much less studied are those colour changes in crustaceans as the brown shrimp (*Crangon crangon*). Besides providing us with the understanding of the biological processes behind those changes, the study of the chromatophores of the brown shrimp enables us to test the effects of stressors on its ability to change colour and thus indirectly on their influence on its ecology.

I will demonstrate the ability of the brown shrimp to change its colour and introduce the audience into several interesting topics that can be studied with this model. A combination of live animals and microscope images will be used to present scientific results in a stimulating setup to grasp and hold the attention of the public.

Keywords

Crangon crangon, Chromatophores, Colour change

Sharkwaters: a novel environmental DNA approach for biodiversity assessment and monitoring

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Abstract

As top predators, sharks are an essential part of marine ecosystems, but they are now globally subjected to harvesting rates that are widely deemed to be unsustainable. Relative to teleost fish, sharks grow slower, mature later and produce fewer young, leaving them particularly susceptible to overfishing. Conservation of these charismatic animals is necessary to restore and maintain healthy ecosystems; this represents a challenge to scientists and managers worldwide.

Currently established methods for investigating and assessing shark biodiversity and habitat use are laborious, invasive, costly, biased and generally resource-intensive. The use of environmental DNA (eDNA) represents a novel, non-invasive and rapid method for collecting biological samples from large portions of the environment, without the necessity of capturing animals.

Here we illustrate the development of molecular and operational tools to assess shark biodiversity through filtering, extraction and subsequent targeted sequencing of residual DNA from seawater samples. Through validation of the method using alternative independent survey data tests from mesocosms, we discuss the substantial implications of shark eDNA assessment for ecological monitoring, spatial planning and fisheries management.

Keywords

eDNA elasmobranch

Effect of salinity on the depuration rate of heavy metals in the brown shrimp (*Crangon crangon*)

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Abstract

Despite vast amounts of research on the bioaccumulation of heavy metals, there is little knowledge about their depuration, especially in crustaceans. The brown shrimp (*Crangon crangon*) is a commercially important species in Europe, known to migrate seasonally between the brackish waters of estuaries and the saline waters of the northern Atlantic and Mediterranean. For certain metals, the osmoregulatory system of the shrimp might allow more permeability in higher salinities and thus a higher depuration rate than in lower salinities. Determining the effect of salinity on the depuration of metal pollutants by *C. crangon* is not only important for fisheries, but also for aquaculture and ecotoxicology.

C. crangon were caught in the upper Mersey estuary, which is historically one of the most polluted areas in Europe. They were kept without feeding under three different treatments: a control tank with water and sediment from the natural habitat at 13 psu; a low salinity tank with clean water and sediment at 13 psu; and a high salinity tank with clean water and sediment at 26 psu. The depuration of these animals was monitored during 10 days for the following time points: t0, t12, t24, t48, t72, t96, t120, and t240 hours. For each time point, two individuals from each tank were sacrificed by hypothermia. Trace metal content of each shrimp was then analyzed using Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES). Results will be presented to discuss the effects of salinity on the depuration ability of brown shrimp in the context of conservation.

Keywords

Crangon, depuration, heavy metals, salinity

Three-dimensional post-glacial expansion and diversification of an exploited oceanic fish

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Abstract

Despite the striking physical and environmental gradients associated with depth variation in the oceans, relatively little is known about their impact on population diversification, adaptation and speciation. The pelagic redfish, *Sebastes mentella*, exhibits depth-associated patterns of substructure in the central North Atlantic, with a widely distributed shallow-pelagic population inhabiting waters between 250 and 550m depth and a deep-pelagic population dwelling between 550 and 800m.

By sequencing and genotyping *S. mentella* samples caught between 2006 and 2013, at different depths, across the North Atlantic, we show the existence of two strongly divergent evolutionary lineages, with significantly different distribution patterns and dwelling at different depth layers. Overall, we cast new light on the role of depth in generating biodiversity in the oceans, and consider the practical implications of such findings.

Keywords

Approximate Bayesian computation, depth; population structure; redfish; *Sebastes*; speciation

Uncovering the flaws in EU fish labelling legislation

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Abstract

Having the longest shoreline in the EU, one would guess that most fish sold in the UK were from its own shores and continental shelves, but surprisingly most fish in the UK are imported. According to EU legislation all fish sold for human consumption must have a label indicating, amongst other things, the common and scientific species names. Failure to appropriately label fish products can lead to endangered species being sold, along with fish that can be harmful to humans. Additionally, each EU member state creates a list with species that can be sold on its market and by which common name. While recent research in supermarkets and fish mongers indicate that compliance to legislation is increasing, there still remain weaknesses in the seafood trade market. Within this study we specifically focused on several multicultural groceries and butcher stores in Manchester and Liverpool, and genetically identified frozen fish products that were only coarsely labelled in such premises, using the COI mitochondrial bar-coding gene and available reference databases. Our results were then compared to the government's official species denomination list. Out of our sixteen samples, five were simply labeled as "frozen fish", two were not on the official list, and two were found to be poisonous when consumed by humans. With these results we ask: do you really know what you're eating?

Keywords

DNA bar-coding, Ethnic food shops, Mislabeling

DNA Barcoding reveals the truth at seafood restaurants

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Abstract

DNA barcoding is a well-known and well used method for species identification. It allows the identification of an unknown sample, derived from a small piece of animal tissue, when morphological features have been removed. When fish reach the consumer it is mostly beyond morphological characterisation and therefore at risk from fraud. Within this study we aimed to assess the level of seafood mislabeling within raw fish restaurants. Tuna and eel samples were collected from restaurants in Northern England, as they are a popular choice on sushi restaurant menus despite the critically endangered status of the European eel and Bluefin tuna. The barcoding technique allowed us to identify which other eel and tuna species are being sold to meet consumer demand, as legally all species belonging to the genus *Thunnus* and *Anguilla* are allowed to be sold under the same common name. Results showed that three different species of both tuna and eels are being sold. Among the tuna samples bigeye and albacore were the main species found and two samples sold as 'tuna' returned as bluefin. The three species of eel included European, Japanese and American eels. Bluefin tuna and European eel are severely overexploited and concealing the species under one common name prevents consumers from making an environmentally conscious choice.

Keywords

DNA barcoding, restaurants, fraud, conservation

Physics, Material Science and Mobile Network

Complexity in nonlinear Fabry-Pérot cavities: reaction-diffusion optical systems and spontaneous spatial patterns

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Abstract

Alan Turing's now-celebrated analysis published in 1952 [Phil. Trans. Roy. Soc. London B 237, pp. 37-72 (1952)] successfully explained, in mathematical terms, the origin of pattern and form in Nature. His ideas on morphogenesis are truly universal, equally valid for describing emergent phenomena in chemical reactions as they are for explaining vortex creation in fluids and spatial structures appearing spontaneously in the cross-section of laser beams. Turing framed his mechanism for pattern formation in terms of a system's level of stress crossing a critical, or threshold, value. Above threshold, the uniform states of reaction-diffusion models can become susceptible to arbitrarily-small background fluctuations. Feedback (intrinsic nonlinear processes) drives winner-takes-all self-organization into a finite-amplitude pattern characterized by a single dominant scalelength. Well-known examples include hexagons, honeycombs, squares, stripes, rings, spirals, and vortices.

This presentation will consider a laser source exciting a simple Fabry-Perot (FP) cavity that comprises two partially-reflecting planar mirrors between which is sandwiched a thin slice of diffusive Kerr-type material. Nonlinear FP cavities are notoriously difficult to analyse due to the subtle interplay between so many different physical phenomena: diffraction, diffusion, counterpropagation, time delays, and a range of cavity effects (including mirror losses, periodic pumping, and mistuning). However, the thin-slice model permits considerable progress to be made. We will present a theoretical analysis uncovering the threshold instability spectrum for predicting the emergence of Turing (static) patterns. A survey of results will also be given from simulations evidencing the FP cavity's innate capacity to generate both simple (single-scale) and fractal (multi-scale) patterns.

Keywords

Complexity in nonlinear Fabry-Pérot cavities, reaction-diffusion, optical systems, spontaneous spatial patterns

Electronic and optical properties of reduced graphene oxide

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Abstract

Graphene has received considerable attention in recent years, owing to its many remarkable material properties. As it is semi-metallic in nature modification of its electronic structure is required for application to photonic devices, such as solar cells. Oxidation of graphene is one method that can be used to effect this. Using first principles quantum mechanical simulations, we investigate the electronic and optical properties of reduced graphene oxide (rGO) at various levels of oxygen coverage.

At full coverage, we predict fully oxidised graphene to possess a wide electronic band gap, making it transparent to visible light and therefore of use as a transparent electrode in photovoltaic solar cells (PVSCs). However, the energy gap is decreased as the oxygen coverage is reduced. Importantly, our calculations show that the gap can be tuned to absorb light in the visible and infrared parts of the spectrum. Interestingly, for rGO structures where the symmetry of fully oxidised graphene is preserved, the relationship between level of reduction and gap is a simple exponential one. Our analysis predicts strong optical absorption, meaning that rGO can potentially be used as the active medium in PVSCs.

Keywords

Density functional theory, graphene oxide, photonics

Assessment of disproportionate collapse for tall timber buildings

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Abstract

Failure of building components subject to extreme loads is understandable; but concern arises when this initial damage triggers failure of other elements leading to a disproportionate collapse, characterised as 'domino' failure. Unlike the case for concrete and steel where guidance is readily available, the main guidance on timber construction to satisfy collapse tolerances is derived from a single six-storey test frame building. The prescribed recommendations become unrealistic, unfeasible and often extremely expensive for cross-laminated timber framed structures with greater than 6 storeys and different proportions. The current lack of guidance constitutes a setback if timber has to be used for creating a low carbon skyline in the future.

This research focuses on practical techniques and strategies to improve safety of tall timber buildings, giving engineers greater control over the failure behaviour of connections between different members of the structure to create safe failure mechanisms during accidental load events. By only allowing certain failure mechanisms, impending collapse becomes predictable and will be signalled by gross, yet stable deformation or excessive cracking which will indicate the onset failure. This research will culminate in design guidance, in the form of structural bulletin that will serve as a foundation from which engineers can build upon in order to avoid 'domino' failure. The methodology consists of digital modelling simulating failure mechanism of the building and laboratory experiments to validate the outcomes using industry sources materials and sub-frames.

This presentation highlights the importance of safely using timber to create the skylines of our future in direct response to the increase in urban populations and the corresponding reduction in availability in natural resources. It illustrates and identifies methods for overcoming the risks associated with disproportionate collapse for tall framed timber buildings; and finally shows predicted failure mechanisms with associated computer simulations and validated physical testing to overcome these limitations.

Keywords

Timber, disproportionate, collapse, tall building

Reliable Spectrum Sharing Management for Cognitive Radio Networks

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Abstract

Cognitive Radio Network (CRN) is a promising network that proposed to improve the utilization of wireless spectrum by enabling the unlicensed (secondary) users to reuse efficiently the underutilized licensed spectrum with the following two conditions: (1) harmful interference to licensed (primary) users must be avoided, and (2) optimum Quality of Service (QoS) must be provided to its users. However, spectrum sharing among CRNs operating the in same place presents significant challenges. This paper comprises two major contributions; firstly, it proposes a Novel CRNs management framework, namely CogMnet that regulates the operation of centralized CRNs. CogMnet aims to ensure the reliability of CRNs' spectrum sharing and to avoid overcrowded CRNs scenario. Secondly, it proposes CRNs Admission Control algorithm in order to demonstrate the effectiveness of CogMnet by determining the maximum allowed CRNs in any location. Simulation results and comparisons are presented to demonstrate the performance of the proposed algorithm and framework. To the best of our knowledge CogMnet is the first framework that aims to regulate the operation of CRNs under regulators' supervision. Furthermore, CRNAC is the first algorithm in the literature proposes for CRN admission decision making. Moreover, overcrowded CRNs scenario has not been addressed before.

Keywords

CRNs; CRNs management; QoS; Spectrum Management; Spectrum Sharing

Increasing the energy efficiency of Ultra WideBand (UWB) enabled Mobile Ad Hoc Networks (MANETs) by optimising MAC protocols

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Abstract

A Mobile Ad-hoc Network (MANET) is formed by the connection of wireless devices without the aid of third party intervention, existing network infrastructure or applications. Many ideas and resources have been proposed to overcome some of the research challenges in MANETs but still many issues are left unsolved. Research work reveals that Ultra WideBand (UWB), a relatively new technology, when integrated with MANET at different layers of the network, will reduce some of issues of MANETs in comparison to narrowband technology. UWB technology provides a method of transmitting a high frequency signal over a large amount of Radio Frequency (RF) spectrum whilst at the same time utilising minimal amounts of power in both the transmitting and receiving nodes. .

The most common and challenging issue in MANETs is the conservation of power. In particular, protocols such as Media Access Control (MAC). Although, algorithms, models, and untested hypothesis has been proposed to enhance MAC protocols with respect to overhead delay, Quality of service and localisation, a lot still needs to be done. Our research work will investigate the state of the art in MANETs under UWB with specific attention made to the MAC protocol. Based on the summary of existing work we have conducted here at the University of Salford, an algorithm will be developed, tested and verified, in order to optimise the performance of MANETs at the MAC layer. It is proposed that the algorithm will be developed in the QualNET network simulator, and then verified analytically using MATrix LABORatory (MATLAB). A comparison with existing MAC protocols will then be made and a significant contribution to knowledge proposed.

Keywords

MANET (Mobile Ad hoc Network), UWB (Ultra WideBand), Medium Access Control (MAC), Energy conservation

Location-Based Services for Mobile Network by Clustering Distributed Databases

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Abstract

Location Based Services (LBS) are services that are provided to the user according to the user's location. They are developing rapidly in the mobile and IT fields. LBS has a variety of applications that can be offered to organizations such as government, emergency service, commercial and industrial organizations for example, traffic information, tracking and finding directions

The components of the LBS needed to secure an end to end service successfully are a mobile terminal, positioning system, communications network, and service and data provider. In normal systems, a third-party company is the data and service provider and the communication network used to transfer data and user requests to the data and service provider is the internet. Therefore, if the user is offline, the LBS cannot be completed and the mobile operator cannot exchange data with the data and service provider when the internet connection between them is unavailable.

In the recommended solution to solve these problems, it is proposed that the connection between the user and the mobile operator uses the voice channel instead of the packet channel, and a database for the mobile operator is added so the operator becomes the data and service provider for LBS. The main advantages for this proposal are that the traffic on the packet channel will be reduced and the end to end service for the LBS will always be secured, even if the internet is unavailable.

Keywords

Location-Based Service, Mobile networks

System Capacity Enhancements in LTE-A Heterogeneous Networks

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Abstract

Heterogeneous Network is a promising solution to increase the spectral efficiency and the system capacity of LTE-A mobile networks by deploying small-cells within the coverage of the Macro-cells, in addition to enhance the cell-edge performance.

In this paper, many challenges and possible solutions have been outlined to enhance the performance of LTE-A networks using heterogeneous deployment. Dual connectivity is a potential solution to increase system capacity and to overcome the mobility robustness issue in such deployment. Lean carrier can provide further capacity enhancements by reducing the signaling overhead which leads to better resources utilization, in addition to using dynamic TDD for local area coverage using frequency-separated scheme.

Using higher carrier frequencies for lean carrier in small-cell layer is a good choice to achieve higher bandwidth and spectrum availability, while macro-layer can use the legacy carrier to provide mobility anchor and system information for all legacy and Release 12 mobile terminals.

Keywords

HetNet, CRE, ABS, Dual Connectivity, Lean Carrier

Workplace 1: Employability; Recruitment; Wellbeing

Graduate transitions - opportunities and obstacles

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Abstract

In recent years there has been an increasing focus upon graduate employability, particularly now that many students will leave university with significant debts due to the rise in tuition fees. Universities are under pressure to give every student the best possible opportunities to graduate with, not only a good education, but also a portfolio of transferable skills.

Greenwood (2015) identified the lack of research into reasons why students may, or may not, be proactive in seeking out the chance to develop their employability through activities such as volunteering, work placements, international experience and pursuits which develop the 'know-who' and the 'know how' to find, and secure, appropriate employment. His research suggested that they don't see the benefit or that they don't have time because they feel they need to focus upon getting a good degree classification above all else.

This research will build upon existing studies, following individual students from North-West 'new' universities beyond graduation, to understand the lived experiences of their transitions and how they construct and reconstruct their future career and employability narrative throughout this time.

The study seeks to inform students and the professionals who work with them throughout and beyond their university career by exploring barriers – real and perceived – and supporting factors which can help Salford students to achieve their full potential. The presentation will conclude with some tips as to how current research students might start to prepare for their future careers.

Keywords

Careers, Employability, Graduates, Students, Volunteering

The creative student's perspective on employability

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Abstract

This paper reveals findings from a small-scale study which sought to discover what employability means for a group of students from creative disciplines who are close to the end of their university career. In an uncertain creative sector job market, how do they view their future career prospects? Using a focus group methodology areas of contention and agreement are drawn out revealing a cohort of students whose career ambitions are aligned to intrinsic motivations and values, and who have high expectations of what their university should provide in terms of employability support. They express many hopes and fears, and confidence levels about their futures vary considerably. Recommendations are made about what can practically be done to support students in relation to employability, and I argue that elements of career development theory which have had little attention in many discussions of employability may be of practical value in increasing the sophistication of career and employability learning opportunities provided to students, both within and outside of the curriculum.

Keywords

Career theory, career adaptability, creative disciplines, employability

The role of HRM in identifying and removing barriers for women returning to the workplace after child-birth

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Abstract

Almost one half of the UK's jobs are undertaken by women with 80% of them going on to become mothers (Office for National Statistics, 2014). Yet, research carried out by (House of Commons 2013, Women Business Council 2014, TUC 2015) reveal that up to fifty thousand women a year cannot return to work due to discrimination by their employer, with some told they cannot continue in their role on a part-time basis (S. Kanji , 2011). Some women are forced into roles with less responsibility where it is harder to gain promotion, whilst others are effectively constructively dismissed (ACAS, 2013).

Existing research (by Janus 2012, NCT 2014, M. Paludi 2014, and Stidham et al., 2015) focuses on barriers women face in transition from Maternity leave to returning back into the workplace. Identified barriers include; work-life balance, lack of flexible working arrangement, inaccessibility to suitable part-time work and others. Yet, there remains a gap in research on the role of Human Resource Management (HRM) that is responsible for the management of people within organizations focusing on policies and systems (CIPD, 2015), in removing these barriers for women returning to workplace.

This study examines HRM's role in identifying and removing barriers for women returning to the workplace after Child-birth and it will contribute towards existing knowledge by questioning implementation and usefulness of current HR policies to support women in these circumstances. Drawing on primary research in HR practice and experiences of women re-entering the workplace, the study will argue that new and improved strategies need to be adapted by HRM to remove on-going barriers that women encounter.

Keywords

Barriers Child-birth, HRM, Women, Workplace

Using IT to address issues arising from the deployment of a multinational nursing workforce

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Abstract

This research examines the factors that promote or impair effective collaborative working in a highly multi-cultural healthcare setting. The principal focus will be on nursing. In order to address this aim, a methodological strategy was devised employing a mixed-methods case study approach. The power of case study is that it permits the assimilation of multiple perspectives on a phenomenon, and is therefore amenable to both qualitative and quantitative methodological approaches (Yin, 2009). The results that can be extrapolated from this particular approach are likely to be more robust as they are taken from various—rather than a single—viewpoints (Mills Durepos and Wiebe, 2010). Both questionnaires (quantitative) and semi-structured interviews (qualitative) will be used to address the objectives: 1) Assess the meaning of culture and multi-culture, 2) Identify effective and ineffective collaborative working, and 3) Identify the factors (facilitators and barriers) that affect multi-cultural collaborative work within Saudi hospitals. The questionnaire will be based on the findings of the literature review. The interview questions will be based on the findings of the questionnaire. It is hoped that the results of the research will inform government strategies and policies around multi-cultural working.

Keywords

Collaborative working, healthcare setting, multi-culture, facilitators, barriers

Exploring the potential for social enterprises to positively impact on employee health and wellbeing

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Abstract

Interest in social enterprises has grown rapidly in the UK during recent years. In 2002, the New Labour government launched its first social enterprise strategy, Social Enterprise: a strategy for success, and government has since maintained its enthusiasm for social enterprises playing a significant role in society. Social enterprises use market-based strategies to achieve social goals, i.e., like charities, they have social aims, but, like businesses, they seek profit – but unlike businesses, they reinvest this profit either in the organisation itself or the community they serve. While much has been written about them as a potential solution to a range of policy problems, little has considered what it is like to work for these organisations. Research in related fields, such as voluntary sector organisations, suggests these organisations might provide good quality work environments that positively impact on employee health and wellbeing. Work quality is an influential determinant of health and a healthy working population is vital for the economy. Working age ill health is a costly problem for employers (£9 billion per annum) and the State (£13 billion). Faced with ever-increasing health budgets and an ageing population, government must consider innovative solutions to improving the health of working age population, especially in the context of an economy emerging from recession. This study explores the potential for social enterprise to positively impact on employee health and wellbeing, reporting the findings from 22 qualitative interviews with social enterprise employees working in Greater Manchester. The findings suggest they provide good quality work environments that positively impact employee health and wellbeing.

Keywords

Health, quality of work, social enterprise, wellbeing

Work-stress: what's the problem?

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Abstract

Psychosocial working conditions, such as excessive demands, lack of control or manager support, have been consistently linked to negative psychological health outcomes. However, no two organisations are the same, so how do employers identify the key issues in their organisation? This study examined conditions in a large public sector organisation, and their relationships to psychological health of employees to identify the key stress-risks. Contextually, the research takes place against a backdrop of ongoing 'austerity measures' and these findings are based on a cross-sectional survey collecting both quantitative and qualitative data self-report data from employees (n = 1,424). Quantitative measures were used to assess several key stress-risk factors identified by previous research, in addition to employee perceptions about work, job insecurity and indicators of psychological health. Qualitative data came from open-text questions asking respondents to comment on positive and negative stress-related aspects of work. Both types of data highlighted similar psychosocial factors, with workloads being particularly strongly implicated, but the different perspectives they contributed highlights the unique insight that each may add. For example, although the amount of work was a factor, qualitative data suggested the issue was not so straightforward, and also highlighted the impact of austerity. Both types quantitative and qualitative data identified the prominence of similar stress-risk factors, enabling some confidence in their conclusions. However, the complementary perspective provided by each suggests it would be unwise to assume that either – by itself – is sufficient.

Keywords

Stress, wellbeing, work

Business: Organisations; Environment; Systems

Organizational Perceptions of Environmental Performance

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Abstract

Organisations exhibit pro-environmental behaviours in an attempt to improve environmental performance; however, environmental performance is complex and multidimensional (Hertin et al, 2008). As organisations have differing operations and interactions with the environment, formal definitions are difficult to generalise creating subjectivity in the interpretation of environmental performance (Bellesi et al, 2005; Hertin et al, 2008). Furthermore since organisations seek pro-environmental behaviour for diverse reasons they are likely to have varying views of the meaning of environmental performance, and will approach performance improvement differently. Research on environmental performance has been inconclusive, with previous studies revealing variations in its meaning and interpretation (Bellesi et al, 2005; Hertin et al, 2008). Understanding differing organisational interpretations of environmental performance will help to correctly ascertain the impact of pro-environmental behaviours, creating clarity in the approach to environmental performance measurement.

This paper critically analyses perceptions of environmental performance, with a view to determining how best to align specific organisational perceptions with performance measurement. Through interviews and open questions, organisations' views are characterised by analysing qualitative data derived from respondent opinions of the meaning of 'environmental performance'. Results show that organisations have distinctly different views of environmental performance, interpreting it in the light of varying subject themes. 'Environmental impact consciousness', 'environmental efficiencies' and 'social pressures and influences' emerged as the most prevalent themes within which environmental performance is interpreted.

Keywords

Environmental performance, improvement, measurement, perception

Utilising cross-functional teams to achieve marketing and operations integration for delivery priority

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Abstract

In today's manufacturing environment, due to the complexity of products, and progress of technology, companies are forced to be more responsive to the pressure of dynamic markets through developing, producing and delivering products to their customers rapidly and before competitors. As a result, marketing and operations integration has increasingly received great attention from many academics and practitioners due to its essential role in satisfying customer expectations. Despite the importance of this interface, empirical research on how to achieve and develop the integration is still limited when compared with conceptual work. Therefore, this study comes as an attempt to narrow this gap through the present model by which the researcher investigated why and how to manage the marketing and operations relationship effectively in order to be more market oriented. This model consists of four phases namely the need (reasons for integration), the method (cross-functional teams), the development (potential problems), and the achievement (delivery priority). This comprehensive formative construct represents a strategic imperative for successful performance because it based on the fit between strategy (the method), structure (cross-functional integration), and environment (the competitive priority). Empirically, due to the need to develop the performance of the Iraqi public industry sector, two Iraqi public textile companies were chosen as multiple case studies to conduct this study by using semi-structured interviews and direct observation to gather valid data.

Keywords

Delivery, integration, market, orientation, teams

Implementation of 3D Printing: A Supply Chain Perspective

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Abstract

Additive Manufacturing (AM), or “3D Printing”, also called the ‘Third Industrial Revolution’, allows companies and individuals to “print-out” solid objects layer-by-layer based on access to 3-dimensional computer data. Several authors have pointed out that AM has the potential to reduce the number of stages in the traditional supply chain and to fundamentally revolutionize manufacturing operations and supply chains. Evidence suggests that AM technology as a driver of supply chain transformation it can achieve precision, speed, affordability, and materials range. Therefore it has the potential to redesign products with fewer components and to manufacture products near the customers.

Production applications of AM technologies can be found mainly in aerospace, automotive, medical, and consumer goods. Although that according to the literature a number of companies are already using AM technologies they face particular difficulties in the implementation process. As some studies have shown, AM implementation is disappointingly absent, especially in relation to supply chain. But in order for organisations to truly reform their supply chains, implementation of AM is required. Hence an investigation on the main AM implementation factors with particular impact on supply chain designs need to be explored.

This research investigates the impact of AM implementation factors on supply chain paradigms with the overall aim of developing an AM implementation framework. It is carried out through a case study research approach combined with background theory on advanced manufacturing systems along with the supply chain paradigms. An initial AM implementation framework will be presented.

Keywords

Implementation, 3D Printing, Supply chain

Challenges of Emiratisation

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Abstract

In keeping with the government aim of institutionalizing the process of labour nationalisation in the United Arab Emirates (UAE), otherwise known as Emiratisation, more efforts are being made to place Emiratis in the private sector in view of the declining number of jobs available in the public sector. Guided by the theory of self-determination (SDT), in the context of Emiratisation, the study explores both social and work environments with the purpose of determining whether the existing conditions – in the context of Emiratisation – tend to encourage or discourage Emiratis when it comes to seeking or staying in jobs in technical firms.

The study presents an examination of the intrinsic motivation (IM) of Emirati jobseekers to participate in the technical/vocational-oriented workforce in the private sector. It aims to develop certain measures that will enhance the drive to seek a job. The workforce development perspective was mostly derived from the context of Emiratisation – the labour nationalisation programme of the UAE. Other complementary determinants – consisting mainly of demographic and socioeconomic variables – were gathered in order to establish whether they had an influence on an applicant's drive to become employed.

As a research stance, the qualitative method was chosen due to the in-depth, rich data the researcher aimed to acquire and analyse. In administering the main study, two types of research instrument were employed – written questionnaires for the employed and unemployed Emiratis, and survey questions (structured, semi-structured and unstructured) administered in face-to-face interviews with non-Emirati employers.

Keywords

Emiratisation, Nationalisation, Motivation, SDT, UAE

The role of social media in recruitment

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Abstract

Following the explosion of professional and social networking media in the previous decade, there is simply no denying the ubiquity of social media, and its penetration into almost all facets of everyday life. But, what does this mean for businesses and the practice of Human Resource Management (“HRM”), and more definitively what is the role of social media platforms in the recruitment process? Anecdotally, the use of professional and social networking media as a tool in the recruitment process has become widely prevalent in businesses on both sides of the Atlantic. However, in academic circles there is a particularly evident paucity of empirical research which explores the processes and procedures individuals/organisations employ in their HRM and recruitment practice. Consequently, this paper seeks to explore the nature and extent to which social media is being utilised for recruitment purposes, probing how extensive it is, who carries it out, what platforms are accessed, what information is sought, how is it collated, to what use the information is put, how organisations justify their practice, and what consequences there are of such practices. Utilising a qualitative methodology, the paper explores, and interprets the meanings, those individuals/organisations directly involved with the use of social media in recruitment, attach to their experiences. Among others, an early emerging theme from this research has been centred on issues associated with concerns from HRM professionals regarding the digital divide in applicant demographics. The paper concludes by examining the early findings in more detail and suggests areas for further research.

Keywords

HRM, Recruitment Process, Recruitment, Social Media

Financial Inclusion: The Role of Financial System and Other Determinants

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Abstract

Based on institutional theory, this study investigates the role of financial system in financial inclusion and the other determinants in shaping this issue. The design of the study takes account two lacunae in our current understanding of this topic. Firstly, despite that the financial inclusion/exclusion literature is voluminous, it is surprising that relatively little research has been carried out on the effect of financial system on financial inclusion, given its significant role as one of the major factor associated with this matter.

Secondly, besides financial system, empirical evidence on other financial inclusion determinants is relatively lacking and far from conclusive. Notably, contradiction signs and significance levels are commonly observed. Using the standard regression approach invariably involves identification of the average behaviour of countries, and therefore does not measure diversity across countries.

In response of these two major issues, this study employs empirical research methods, namely cross-sectional pooled regression and quantile regression method to analyze sample consisting of 49 countries, drawn from Financial Access Survey (FAS, 2011), World Bank (2007) and Global Financial Inclusion (Global Findex) database. The indexes of financial inclusion are constructed and financial system classification procedure is developed for the analysis of the financial inclusion determinants.

Keywords

Financial inclusion, financial system, institutional theory

A Study of Critical Factors that Impact Information Systems Projects'

Outcome: A Case Study of Kuwait

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Abstract

The problem of the existence of significant differences in the outcomes of Information Systems projects is a global phenomenon, and the IS projects in the State of Kuwait is no exception. The goal of all parties involved in IS projects – managers, technical team, external agents, consultants and users in either the public or private sector is to successfully deliver the project on schedule, within planned budget and with the highest quality. IS projects are commonly influenced by either success factors that support project parties to reach their planned goals, or failure factors that either postpone or prevent project completion. These together form the critical factors that influence the outcome of the implementation of information systems (IS) projects.

This work arises from the need of determining the factors that have a constructive influence on the IS projects and has been the focus of extensive research in the last two decades. This study aimed to identify the critical factors that influence the success/failure of the implementation of information systems (IS) projects in the State of Kuwait. It focuses on the critical factors that impact the IS projects' outcome from the perspective of an academic institution in the governmental sector (Kuwait University).

This research examines four success criteria that consist of eighteen project factors according to the literature and framework of McLeod and MacDonell (2011). On the basis of the expected results, a conceptual framework would be constructed based on the abstracted and synthesised perspectives of the types of factors that affect project outcomes in the State of Kuwait. This study will also attempt to fill the gap in the existing research literature that covers the success factors of IS projects in the State of Kuwait.

Keywords

Financial inclusion, financial system, institutional theory

Arts and Media: new media; politics; historical voices; poetry

Online Collective Action in Non Democratic Settings: The Case of the Saudi

Women Drivers' Campaign and Teachers Campaign

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Abstract

There has been a growing literature around the role of online technologies in fostering collective action in democratic countries (Bennett and Segerberg 2012, 2013; Bimber et al 2005). However, studies in non-democratic settings have tended to focus on high profile but often relatively short term mobilisations. Longer-term online activism and campaigns outside liberal democracies have remained relatively under-researched and difficult to analyse. My thesis, therefore, seeks to examine some of the existing assumptions around collective action, (derived largely from experiences in liberal democratic countries), in a country with no tradition of collective. It does this through a case study examination of the Women's Right to Drive Campaign, and Teachers Rights campaign in Saudi Arabia.

In particular, therefore, the research examines the role of Internet in three areas: (a) mobilising support for campaigns; (b) shaping the organisational structure of collective action; (c) disrupting opportunity structures for social justice campaigns.

In order to answer such questions, the thesis draws on two types of data: firstly, extensive interviews with campaigners and International journalists and secondly, social network analysis.

Provisional results indicate that Internet technologies have created a new space, allowing campaigners to express themselves without significant disruption. Though, social and political context play a key role in shaping campaigns more what than what technology dose. It has also proved a useful tool for countering media hostility and negative coverage.

Why Cyber War is not War

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Abstract

There is a large body of academic writing which argues that there is such a thing as cyber war and that this has happened, is happening, and will keep on happening. However, this presentation will argue that these cyber attacks, such as the targeting of Estonia's governmental websites in 2007, are not cyber war. It will show this in a number of ways. To begin with it will look at how war is defined. This argument will be established by looking at theorists of war most notably Carl Von Clausewitz. It will illustrate that for something to be war, it must have a political motivation, it must involve an act of force, and that there must be a level of threat which would move the act of force to an act of war. It will then move on to show some of the ways in which people have looked to define cyber war. It will however, argue that these definitions of cyber war do not work because the attacks do not have all the elements of war. This is because for an attack to become an act of war, it needs to have a such level of threat caused by the action to move it to an act of war. This has been lacking, and when this was not the case, a traditional war was planned making the attacks not cyber war. From this, the presentation will show that instead of these attacks being war they are just attacks.

Keywords

Cyber, Theories, War

Changing Political Cultures in the Trade Unionism 1931-1951

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Abstract

This study is an AHRC funded collaborative project between Salford University and the Working Class Movement Library (WCML). The project seeks to investigate and analyse, both diachronically and synchronically, the political cultures within major British trade unions affiliated to the Labour Party (1931-1951). The trade unions' in-house journals, written by and for trade unionists, which are held at the W.C.M.L., provide a rich source of largely unexploited material.

Research into trade unions has typically focused on the industrial side of their work, pay and working conditions, industrial disputes, and their official doctrine and formal policies, as expressed through conference speeches, resolutions and voting behaviour. In contrast this study focuses on the morphology of the ideology and ethos of the different unions and their membership, looking beneath the official policies in order to ascertain their common-sense understandings and unconscious and unquestioned received wisdom, which may have been invisible to the participants, but is exposed with the passage of time. There is a particular focus on revealing the 'surplus meaning' within the material, especially elements of socialist political culture(s), and how this relates to dominant strands of socialist thought, Labour Party policy, and wider contemporaneous debates. The impact of context on the morphology of ideology and the evolution of narratives is analysed through the 1930s depression, the rise of fascism, WWII, the first majority Labour Government with its nationalisation and social welfare policies, and the Cold War.

Keywords

Ideology, labour, politics, trade unions

Public relations and peace building in the Niger Delta of Nigeria

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Abstract

The discovery of oil in commercial quantity at Oloibiri in Rivers State of Nigeria in 1956 was in the hope of many, a door to prosperity for all oil associated stakeholders in the Niger Delta though the process of extraction meant socio-economic dislocation to the oil rich communities. The distribution of the oil wealth raises the concern of the oil rich communities over the state of infrastructural neglect, environmental degradation and denial of access to primary sources of livelihood in the oil rich communities. Despite the claim by the government and oil producing companies to having separately and collectively promoted different forms of public relations programmes in the region, the agitation from the oil producing communities has been on the increase often expressed in diverse form of hostilities. It is against the foregoing background, that this study is stimulated to evaluate the public relations programmes of the government and oil companies to establish if they have in reality contributed to a mutually beneficial relationship or otherwise. Relying on the benefit of a focus group of 20 and survey of 300 respondents, built on symmetrical and balance theories, this study seeks to prove that the persistent lack of equitable distribution of oil related wealth will continue to frustrate the process of long term peaceful co-existence among oil stakeholders in the Niger Delta.

Keywords

Public relations, peace-building, stakeholders, publics, balance theory

Conversing with the Past

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Abstract

The literary critic Mikhail Bakhtin proposed that “writing about a culture that is temporally distant must never be . . . to regard it as . . . a closed circle.” Rather, in Bakhtin’s view, “each unity . . . enters into the single process of the developing human culture.”

Henry Smith, the historical character at the centre of my research, was a 16th century philanthropist. His culture and era have long gone, but his legacy remains and is still dynamically operative. Amongst his contemporary beneficiaries are destitute asylum seekers, linked to his Will by a bequest intended “for the use of the poor Captives, being Slaves under the Turkish pirates.”

Whilst Henry’s legacy lives on, his story has been neglected for over two hundred years. In a lively dialogue with the man himself, I shall demonstrate the value of entering another’s particular sphere of communication, not merely to see his world through his eyes, but as a creative device to facilitate his reintroduction into the developing human culture.

Bakhtin acknowledged the wisdom of immersion in the historical culture, but suggested that this viewpoint is incomplete; that the writer, though acknowledging herself as the outsider, should not see this as a negation of creative understanding. I will propose that my “process as practice” dialogic exchange may not only serve to sharpen the writer’s perceptions of history, but may also reveal new questions, new depths of understanding from within her own historical particularity, that can be carried forward into her writing.

Keywords

Asylum, dialogue, historical, voices

Dolly-A Voice of Innocence and Truth

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Abstract

Dolly Mountain spent eighty-four-years in Lancaster Moor Asylum after giving birth to an illegitimate child, in 1910, she was just sixteen. Lancaster and the National archives holds the key to valuable new information that has been hidden away for a century. How many innocent voices were left unheard?

I have examined photographs which have taken me back into her past: asylum life, and the relationship between the photograph and the text.

My original research investigates, and highlights the process of fictionalisation and what it can do that 'factual' writing cannot.

Weaving seamlessly between each section of my creative work, I will show glimpses of Dolly's life that has a flavour of the asylum neatly sewn into the hem of her smock, and worn on the soles of her shoes.

Turning the light back on in Dolly's world, I present a narrative that is both informative and creative, capturing a past, and a voice that was never heard.

A 'representative event' in Dolly's life was when she was running away from her father after he had given away her baby: a creative piece that shows displays of emotion.

Creative pieces and poetry will record milestones in Dolly's life and will be read as part of my presentation, portraying elements of research that I have already undertaken.

Keywords

Asylum, Voice, Innocence, Truth, Biography

Bound to Home: Childhood Memory of Landscape and Domestic Domain in Cathy Song's Poetry Collection, Frameless Windows, Squares of Light

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Abstract

In her second poetry collection, Hawaiian-born, Chinese-Korean ancestry and Asian American woman poet, Cathy Song, draws the relationship between landscape, domestic domain and childhood memory. Specifically, she employs vivid visual images of landscape, domestic domain and voices of a child speaker with an adult consciousness to communicate the idea of a child who always finds himself bound to home during his attempts to escape trial. Compared with her first poetry collection *Picture Bride*, I argue that Song's second poetry collection, *Frameless windows; Square of Light* is no longer nourished by her Asian cultural elements and identity. The speaker represents both outdoor and indoor setting with fewer cultural poetic devices to describe the path between home and the escape trial. In this light, I analyse the theme by scrutinizing the images of places, objects and tones in selected poems. In fact, Song has touched only the surface detail of her Asian cultural heritage. Home in Song's *Frameless Windows, Square of Light* is always a place to come back to; it is closed, yet it remains remote from the cultural material possessed by the poet herself as an Asian American.

Keywords

Poetry, memory, ethnicity, lanscape, domestic domain

Biological Science

Genetic and epigenetic variation in bovine TLR genes

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Abstract

Mammals possess toll-like receptors (TLRs) which are major defenders of our innate immune system. Ten TLRs have been identified in the bovine innate immune system that play a crucial role in recognising invading, disease causing, pathogens. Several studies have shown that genetic variations in TLRs can be associated with outcome of disease. Identification of these genetic alterations at specific loci within the mammalian TLR gene may help to enhance knowledge on an individual's resistance/susceptibility to infectious diseases such as trypanosomiasis. Our study was aimed at investigating genetic and epigenetic variation of bovine TLR9 gene using novel molecular approaches based on hemi-nested PCR. A total of 72 *Bos indicus* samples with known trypanosome infection status were used for the study. Two novel hemi-nested PCRs targeting two bovine TLR9 CpG Islands were developed to derive genetic and epigenetic DNA sequence data. Nine polymorphisms were found. Three SNPs which perhaps could be genetic markers for distinguishing between bovine species were identified. The study showed no significant association between SNPs and trypanosomiasis ($p = >0.05$). Our results confirm the methylation of bovine TLR9 gene and identified CpG-SNPs (2256 and 2865) which removes a C-G site and perhaps could alter DNA methylation as potential epigenetic markers for bovine TLR9 gene. Also, it reports the significant correlation between CpG Island SNPs ($p = <0.05$, all cases), suggesting possession of one Island SNP is a predicting tool for possession of the others. By extension, the results of our findings could be applied to investigate other diseases associated with bovine TLR9 gene.

Keywords

Trypanosomiasis, PCR, toll-like receptors, polymorphisms

The involvement of the bone marrow microenvironment in chemotherapy resistance in acute lymphoblastic leukaemia

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Abstract

Acute lymphoblastic leukaemia (ALL), the most common childhood cancer, is treated clinically through a combination of drugs such as steroid hormones and drugs that induce DNA damage, with each working through different molecular pathways to induce cell death. Despite a high successful treatment rate in ALL, drug resistance and toxicity remain a problem. It has been hypothesised that the bone marrow microenvironment plays a role in resistance to chemotherapy. To this end, properties of the microenvironment were simulated in vitro and chemotherapy was mimicked by treating ALL cells with dexamethasone and etoposide. Through this, we have identified several key mediators of cell death and survival such as Beclin (mediator of autophagy) whose expression levels are altered through the chemotherapy treatments. Crucially, we have identified that the bone marrow microenvironment exerts a repressive effect on RIPK1, the key mediator of a recently identified cell death pathway necroptosis, in addition to affecting other genes that determine cell fate. In summary, the microenvironment enhances drug resistance in ALL cells, whilst varying combinations of chemotherapeutic drugs and conditioned media have a differential effect on the proteins involved in the cell death and survival pathways.

Keywords

Cancer, Etoposide, Glucocorticoids, Leukaemia, Resistance

Isolation and characterization of medicinal compound from *Phyllanthus*

niruri L

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Abstract

In this study, we have explored the pharmacological properties of *Phyllanthus niruri* L which is widely known as herbal plant with various medicinal activities. To provide an overview of the pharmacological effects of the various crude extracts, a series of biological test was conducted to observe the anti-malarial, anticancer, and antiplatelet effects. The result demonstrated that the water and methanol extracts expressed the highest potency in inhibiting Plasmodium falciparum strain K1 growth, with a half inhibitory dose (IC₅₀) of 1.6 µg/ml. As anticancer, methanol extract were found to effectively prevent the proliferation of leukemia cell (MOLT4) and lung cell carcinoma (COR-123). The IC₅₀ were 42.21 ± 4.98 µg/ml and 48.92 ± 0.52 µg/ml, respectively. Interestingly, all of crude extracts did not show any toxicity towards normal fibroblast cell line (3T3). With regards to antiplatelet properties, methanolic extract showed a strong inhibitory effect on platelet aggregation. At a dose of 250 µg/ml, 50% (v/v) methanol extract inhibited 98.0±1.1% of platelet aggregate formation. The antiplatelet activity of *Phyllanthus niruri* L was further explored in this study. By the aid of bioassay-guided isolation protocol, the study has isolated at least four fractions from the methanolic extract which demonstrated potency in preventing platelet aggregation to take place in-vitro. One of the isolated compounds was assigned as corilagin. To elucidate the mode of action of the inhibitory effect, a proteomics approach was applied. And finally, as the concluding result from this study, we have proposed a mechanism of action of corilagin which involves the total alteration of the multistep platelet signalling cascade during platelet activation and aggregation events.

Keywords

Antiplatelet, Corilagin, Natural Product, *Phyllanthus niruri*

Determining the Effect of Arsenic on Micronutrient and Protein Content of Rice

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Abstract

Rice is a common staple for over half of the world's population. It is a cereal of choice by most people, especially in South and South-East Asia because of its nutritional value. Rice is a source of protein and essential trace elements such as iron (Fe), zinc (Zn), manganese (Mn), selenium (Sn), cobalt (Co) and copper (Cu). This is particularly significant in areas where there is insufficient production of major protein sources like meat, fish and eggs. Deficiencies or imbalances of these nutrients are risk factors for several diseases of public health importance. According to recent studies, rice contains high levels of arsenic (As) in comparison with the other common cereals. A study carried out by Williams et al. revealed a significant decline in Se, Zn and Ni with increased As concentration in rice. Therefore, in addition to the possible health effects which could occur from chronic As exposure from rice and rice-based products, the nutritional potential of rice is also questionable. Hence, it is vital to carry out further research to establish the effect of As contamination on the nutritional value of rice. Essential trace elements in different rice varieties will be identified and quantified using the Inductively coupled plasma mass spectrometry (ICP-MS). A spectrophotometric assay will be used to determine protein concentration in rice. This short study will form part of my PhD research on the topic - Is rice safe? Analysis of effects of arsenic in rice on human health.

Keywords

Arsenic, Micronutrient, Protein, Rice

Food or water? Accumulation of arsenic by *Crangon crangon*

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Abstract

Under natural conditions exposure to contaminants can take place via different possible routes, including water intake and food ingestion. However, the availability of contaminants to an aquatic organism depends not only on its concentration but also on its chemical nature, physical state, and whether the source of exposure is the surrounding water or the diet. The brown shrimp, *Crangon crangon* is an ecologically and commercially important species. We investigated its arsenic accumulation, dosing the water or the food to determine the most important route of exposure. Shrimp were collected from a naturally contaminated area in the Upper Mersey estuary and exposed to two different treatments, under lab conditions: 1ppm arsenic dosed saline water (15psu) with clean food and 1ppm arsenic dosed food in clean saline water (15psu). Three shrimp were sacrificed randomly on day 1, 2, 4, 8 and 16. Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) was used to measure the concentration of arsenic accumulated by the shrimp within the period of dosage. The combined effect of arsenic accumulation by the shrimp on other trace elements was investigated. Fourier Transform Infrared (FTIR) spectroscopy was conducted to determine if the periodic accumulation of arsenic has any effect on the biochemical composition of the shrimp tissue. Results will be presented to discuss the most significant route of arsenic exposure, the effect of arsenic on other trace metals and the potential use of FTIR as a detection method in this species. Implications for management and conservation will also be discussed.

Keywords

Accumulation, Arsenic, *Crangon crangon*, FTIR, ICP-OES

Acoustics, IPTV and Software Engineering

Automatic Speaker Recognition in the presence of Non-Trivial Noise

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Abstract

In the last two decades, Automatic speaker recognition has been an area of considerable research due to its wide use in various areas such as telephone banking, remote access control and surveillance. In spite of the notable development in the field of speaker recognition, there are many limitations and challenges with existing methods and techniques. One of the major challenges associated with the applications of speaker recognition in practice is the so-called “Channel Mismatch” problem, which is caused by the discrepancy between the speech transmission channels in the enrolment phase and testing phases. Noises are known to be significant causes of the channel mismatch and it has been identified that non-trivial environmental noises and their variations are high up in the list of challenges. These varying noises can in turn lead to mismatch between the corresponding tests and the reference model for the same speaker which is found to adversely affect the performance of speaker recognition systems. Reliability of speaker recognition is crucial as it is often used as a forensic or security means. This paper is presented from a systematic study into the behaviour of automatic speech recognition system in noisy environments: A current state-of-the-art speaker recognition system was first implemented and trained. Validation testing was carried in emulated noisy conditions with controlled signal to noise ratios. Various noise types were considered, and statistical relationships between recognition rate and signal to noise ratios have been established. The findings can be used to predict the performance of speaker recognitions systems in real-world applications and help better make decisions and judgements. Future work includes (1) adding noisy samples in enrolment phases and (2) applying speech cleaning in testing phases. These are likely to lead to more robust speaker recognition system for critical applications.

Keywords

Clean Speech, Additive Background noise, Robust Speaker Recognition, MFCC, GMM-UBM, MSR Toolbox

Automatic Speaker Recognition System in presence of Reverberation Conditions - Implication of Reverberation on System Performance

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Abstract

Speaker recognition techniques have been developed into a fairly mature status over the past few decades through continuous research and development work. Existing methods typically use robust features extracted from clean speech signals, and therefore in idealised conditions can achieve very high recognition accuracy. In real-world applications, such as security and forensics related ones, reliability of recognition is crucial, meanwhile limited speech samples and adverse acoustic conditions, most notably noise and reverberation, considerably degrade system performance. This work is presented from a study into the behaviour of typical speaker recognition systems in reverberant retrieval conditions. Following a brief review, a speaker recognition system was implemented using the MSR Toolbox by Microsoft. Validation tests were carried out with clean speech and the speech contaminated by reverberation of varying degrees. The image source method was adopted to take into account real acoustic conditions in the spaces. Statistical relationships between recognition accuracy and reverberation times have therefore been established. Results show that reverberation time and direct to reverberation ratio can both affect recognition accuracy. The findings may be used to estimate the accuracy of speaker recognition and help better determine the likelihood of a particular speaker. Future work may include the use of de-reverberation algorithms and cepstral domain liftering techniques to mitigate the impact of reverberation on system performance, leading to more robust speaker recognition in adverse acoustic conditions.

Keywords

Clean speech, GMM-UBM, ISM, Reverberation, Robust Speaker Recognition, MFCC, MSR toolbox

Perception Analysis on Soundscape Reproduction with 2D Ambisonic System

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Abstract

Ambisonic playback system, especially on a horizontal plane (2D) is considered to be ecologically valid to reproduce outdoor soundscape based on Guastavino's study. Although 2D ambisonic reproduction system offers much simpler speaker set up and is considered to reproduce outdoor soundscape better than the 3D ambisonic system, the application of this system to reproduce outdoor soundscape has not been widely studied.

Three experiments were performed to analyse the validity of the ambisonic playback system on a horizontal plane: listening test in a listening room in Manchester, listening test in a recording room in Indonesia, and in situ Soundwalk in Manchester City Centre. The validity of 2D ambisonic system was analysed using semantic differential analysis.

Furthermore, the data from laboratory experiment was compared with the data from in situ experiment. Analysis from in situ experiment shows three reliable soundscape dimensions: Calmness/Relaxation, Dynamic, and Communication. The data from both two laboratory experiments indicate two reliable soundscape dimensions: Calmness/Relaxation, and the combination of Dynamic-Communication. The similar result of both laboratory experiments in Manchester and Indonesia shows that the lack of previous experiment of the space does not affect the perception of soundscape reproduction. The differences result from laboratory experiments and actual space indicate the difference of perception between soundscape reproduction and actual soundscape. In conclusion, contrary to Guastavino's study, 2D ambisonic reproduction system gives a different perception of soundscape than the perception of actual space.

Keywords

Ambisonic, semantic differential analysis, soundscape

Perception of Quality in Music Production

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Abstract

When we listen to songs from our music collection, we tend to know which we like more than others and we tend to know which we feel sound good and which do not. However, what is not always clear is the rationale behind this decision, or if other people would agree?

While the audio quality of various reproduction systems, such as loudspeakers and lossy audio codecs, has previously been investigated, little is known about the quality-perception of a musical audio signal itself. This research investigates this perception of quality, in music recordings. By examining the listener's sensitivity to, and preference for, various changes in audio production one can learn what might need to be done to maximise the perceived quality. This has implications for the design of various audio systems, such as loudspeakers, audio codecs and mixing consoles as well as current research in the area of intelligent automated systems for mixing music signals.

This presentation will showcase a number of findings from the previous 18 months of research in this area; how is quality perceived in our music collection and are we more likely to enjoy music that is high-quality? Can the same song be made into a 'happy' mix and a 'sad' mix by the mix-engineer? In what ways do 101 different mixes of the same song differ? From these investigations, the nature of our appreciation for music recordings begins to be untangled.

Keywords

Acoustics, Audio Quality, Digital Signal Processing, Music Cognition, Perception

Improving Electronic Programme Guides in IPTV Systems

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Abstract

Internet Television (IPTV) offers a new contribution to TV viewing habits by providing the users with live and Video on Demand (VoD) services which could be transmitted to the users to be displayed by an Internet connected TV, personal computer, laptop, tablet or smart phone. However, this multiple channel, multiple source and multiple platform world brings new challenges in terms of how users can find programmes of interest and ensure that these can be watched on their viewing device. Whilst electronic programme guides (EPG) do exist, these are limited to a fixed set of channels and a single platform and therefore a new approach is needed to realise the true potential of tomorrow's IPTV systems.

This research offers a new approach to integrating multiple media content resources regardless of their source such as terrestrial channels, satellite channels, Internet and content libraries, to produce a truly generic EPG that is also tailored both to the user and their viewing device. A new software architecture is proposed that can sense contextual and environment features, interface to multiple channel sources, translate content meta-data into a standard format and employ a search algorithm that integrates user preferences with social networks and viewing history to produce a more precise viewing recommendation.

An implementation of our EPG is currently being developed using a combination of Matlab, PHP code and XML files to create a prototype system for evaluation. To date the EPG system has been shown to handle content from both YouTube and the BBC iPlayer.

Keywords

Electronic Programme Guide, IPTV, Recommendation System, User Context

Investigation of the factors affecting software maintenance in E-commerce companies in Jordan

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Abstract

Software applications play an important role in e-commerce companies and the significance of software systems and their maintenance cannot be ignored. To improve software maintenance process, a comprehensive understanding of the different factors involved in software maintenance in e-commerce companies is necessary.

A preliminary study has been conducted in order to gain an insight of software maintenance issues facing e-commerce companies in Jordan and also to obtain further details of the main study requirements, such as participant numbers.

This study adopts interpretivist philosophy and qualitative research approach. The study investigates the factors affecting software maintenance in six E-commerce companies in Jordan. Moreover, to examine the phenomenon from multi views, each case study was divided into two groups: group A represents employees who work in software maintenance; group B represents senior management of e-commerce companies. The total is 15 participants, 9 participants from group A and 6 participants group B.

The data was collected from participant companies using semi-structured interviews as a main source and document data methods. Also, the qualitative data is analysed using NVivo software application.

The preliminary findings of the study revealed that there is an absence of systematic approach regarding work in software maintenance in e-commerce companies in Jordan.

Keywords

Software, software maintenance, e-commerce

Social care, health care and user experience

A client focused perspective of Counselling for Depression (CfD)

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Abstract

CfD is described as a manualised form of psychological therapy designed for counsellors working within the Improving Access to Psychological Therapies [IAPT] programme. This study focuses on the client's perceptions of CfD. Firstly; the study explores CfD from the perspective of the client. Secondly it will inform the counselling profession of what is taking place in this therapy as perceived by the client. As no previous study has considered CfD from a client perspective this study gives voice to the client enabling them to convey their understanding of what they perceive is effective therapy. In addition, this study will make an original contribution both to the knowledge base regarding CfD and its effectiveness and to the professional practice of counselling.

Clients receiving CfD complete a Helpful Aspect of Therapy questionnaire after each counselling session then attend a semi-structured interview when sessions have concluded. This is a qualitative study using Interpretative Phenomenological Analysis because the ideographic aspect values each individual narrative and the contribution each makes towards a larger account from a small group of people sharing their experience of the phenomena being studied.

Preliminary findings show that clients perceive this model of therapy as helpful. They were able to work through their issues in a safe therapeutic relationship where often the therapy is described as "amazing". Negative elements reported relate to environmental aspects and a dislike of the administration at the start and end of therapy.

Keywords

Client Perspective, Counselling, Depression, Effective Therapy, IPA

The Impact of Psychiatry Ethnocentric Origin on the Provision of Mental Health of Black People in the UK

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Abstract

Background: The psychiatry ethnocentric origin has influenced the provisions of mental health of black people living in the UK. Research showed that black people experience inappropriate system of diagnosis and treatment as well as cultural insensitivity of professionals.

AIM: The aim of this paper is to explore the effect of psychiatry's ethnocentric origin in the provision of mental health for black people in the UK.

Method: Relevant literature search was undertaking.

Results: The existing researches indicate that racism in the origin of psychiatry have influenced the provision of mental health of black people in the UK. For example, several studies between 1960s and 1970s showed that immigrants from Africa, Asia and Caribbean were excessively diagnosed with schizophrenia. The 2005 census found that black people are two or three times more likely to be diagnosed with schizophrenia and admitted to psychiatric unit than the general population. A recent report found that mental health services for many young people from black minority ethnic group in the UK are fragmented.

Conclusion: Several researches have indicated that the ethnocentric origin of psychiatry has impacted on the provision of mental health for black minority ethnic group in the UK. Thus, for the provisions of mental health to be free of racism, understanding of diversity in race and culture is crucial.

Keywords

Psychiatry, mental health, universalism

The extent and impact of mental health professional stigma on people with mental illness in Saudi Arabia

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Abstract

This research examines the extent to which mental health professionals, whilst also addressing the gap in knowledge of these phenomena, still hold stigmas against the mentally ill. The primary aim of this study is to identify the extent and impact of stigma, as held by mental health experts, against people with mental health problems. The study will focus on mental health experts involved in providing mental health care in Saudi Arabia. The definition of stigma used for this research will be based on the theories of Goffman). In order to address the proposed research questions, a methodological strategy has been devised, via the use of a mixed-method approach. This is relatively common within medical research, and it utilizes a mix of both qualitative and quantitative data collection approaches and analytical techniques (Bryman, 2006). In regards to the quantitative approaches, two tools were used to assess stigma; the Emotional Reaction to Mental Illness Scale and the Attribution Questionnaire-Short Form (AQ-SF) the focus group discussion was the tool used for the qualitative aspects of the study. The survey was set up to collect information about mental health professionals in Riyadh city (KSA). The number of participants used for the quantitative study was 50, and the number of participants used for the qualitative study was 5. The reliability of the two scales was examined and evaluated by measuring their internal consistency using SPSS and Nvivo 10 tools. The findings of this research confirm that professional healthcare providers do still hold stigmatic sentiments regarding mental illness and those with mental conditions. In spite of campaigning for the awareness of mental health, there has been little change in public perceptions, and the quality of mental health care services is not improving in Saudi Arabia. These results will be used to underpin the development of mental health care services in Saudi Arabia, and to highlight the importance of MOH within mental health care services.

Keywords

Mental health professionals, stigma, people with mental health problems

Widening inclusion for gay women foster carers - an essential step forward

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This literature review attempts to explore the psychological, political and societal influences and barriers facing gay women who wish to become foster carers. In this review I have focused on three areas of interest which have emerged as separate but intertwined themes, which can result in intersectionality serving to exclude lesbians and bisexual women from applying and being accepted as foster carers. I have discussed the emergence of Independent Foster Agencies in order to introduce an element of social policy to the review. This section examines the economic, market - driven aspect of fostering provision and, in the drive to place children at the lowest price how this can result in less diversity of carers. Secondly, I explored studies linking higher incidence of mental illness to gay and bisexual women. This has potentially raised negative stereotypes amongst policy makers and social workers alike, seriously affecting the chances of successful application to fostering agencies. Thirdly, I examined evidence relating to child development in lesbian and gay families, and whether perceptions of gender identity development in children could affect perceptions of social workers and managers during the assessment process. Finally, I have discussed methods of foster carer assessment, combined with historical perceptions of LGBT parents and how this, it can be argued, exacerbates the shortage of quality foster care placements for children and young people.

My presentation will focus on the economic aspect of independent fostering provision; an area which is increasingly significant in terms of local authority financial restraints.

Keywords

Carers, Foster, Gay, Lesbian

Developing an effective school-based intervention to address adolescent wellbeing, self-esteem and aspiration in order to facilitate healthy lifestyle choices with respect to alcohol consumption – a review of the literature

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Abstract

The increasing trend in alcohol consumption and its significant health implications is of worldwide concern (Rehm et al, 2009). In the UK, despite a recent decline in overall quantities of alcohol consumed, consumption remains high in a proportion of young people (NHS, 2010) which has implications for school engagement and long-term health and wellbeing; children in the UK are identified as having one of the lowest wellbeing scores amongst wealthy nations (UNICEF, 2007; Viner, 2013). International systemic review evidence demonstrates that school interventions can be effective at preventing/reducing alcohol consumption. The Chief Medical Officer's annual report (2013) cites adolescence as a critical time for intervention, and early interventions to address social and emotional wellbeing are deemed cost effective by NICE (2013). The aim of this research is to develop, trial and evaluate the effectiveness of an intervention to encourage young people to adopt a more responsible attitude towards alcohol. The intervention will address issues of self-esteem, aspiration and decision making and equip young people to make healthier life choices. Key components shown to be effective in previous studies including those using motivational interviewing - a therapeutic intervention employed by Educational Psychologists to elicit pupil commitment to behaviour change (Woods et al, 2014) - will be incorporated into a universal school programme. This presentation will describe the literature review process that was conducted and discuss how it supports the rationale for the resultant intervention. Positive outcomes from this research could yield long-term health, social and economic benefits to the wider society.

Keywords

Adolescent, alcohol, education, intervention, wellbeing

Measuring Satisfaction of Care in people with Dementia

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Abstract

“A life worth living”, “I’m still here”, “I am me” are just a few terms you hear associated with books or events relating to people with dementia. They are examples of how people with dementia are gradually becoming more empowered and involved in activities that are specific to them, such as, advisory groups, policy discussions, service developments, research, awareness-raising campaigns, and national and international alliances (Litherald, 2014). However, when it comes to the care that people with dementia receive there is still a lack of understanding of the level of satisfaction the person with dementia has of it.

Aim: To identify methods that can be used to measure levels of satisfaction in people with dementia in relation to the care they receive.

Objectives: To gain an understanding of literature around methods that are used to measure the satisfaction of people with dementia.

Method: A systematic research development process

Keywords

Dementia Measurement, Satisfaction

Decision making by healthcare professionals when considering end of life care for heart failure patients

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Abstract

The introduction of the Gold Standards Framework in end of life care (GSF 2010) was developed to provide a systematic approach and deliver quality care for patients who had less than 12 months to live. The GSF (2010) aim is to enable every patient to have a 'good death' and in their place of choice. Despite this framework there still appears to be groups of patients who diagnosed with a long term/palliative condition whom still do not access the end of life pathway and the services they require to support themselves and their families at the end of life (Boyd et al 2011). Evidence suggests that one of these groups is patients diagnosed with New York Heart Association (NYHA 1994) stage three and stage four heart failure. A number of studies have focussed on the patient only but very few studies have explored decision making by both healthcare professionals and the patients in the acute care setting regarding end of life care for heart failure patients.

This study uses a grounded theory method with the aim to explore and understand the process of decision making by healthcare professionals when managing the care of patients diagnosed with NYHA stage three and stage four heart failure. The aim of this study was to explore what impact a delay in decision making had on both the patient and their families at the end of life.

Preliminary findings suggest that the transitioning of patients from acute care to palliative care is not happening and that may be for a number of reasons a) reluctance by some doctors to initiate end of life pathways for fear of litigation (legacy of LCP), b) 'not wanting to give up on the patient'. d) lack of application and understanding of government guidance not being applied in practice.

Power, Place, Food, Methodologies

Symbolism, Authority and Power; An Ethnography of the Police Uniform, Equipment and Subculture

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Abstract

Police officers are distinctive and unique actors in public spaces. They experience a peculiar familiarity with wider society: they often do not personally know the citizens in the areas they patrol but everyone knows that they are part of the police institution by their uniform. Every feature of their presence has been deliberately and rigorously designed in an attempt to ensure their appearance causes no misunderstanding whatsoever of their occupational social identity. As an unambiguous marker of occupational status, the uniform is significant in lending the actions of its wearer acceptable and appropriate.

The research examined the role of the uniform in policing experiences and working practices. The relatively recent development of the role of PCSOs under the Police Reform Act 2002 has generated a new dynamic to policing in England and Wales. Very little, if any, research has been conducted on the role of the uniform for PCs, PCSOs, senior ranks, and those in non-uniform roles; and certainly not in terms of their experiences with different roles in community policing. Furthermore, the relationships between genders, uniform and policing has not been explored with regards to specific ranks. The uniform for police officers will be investigated in terms of gender and rank. It has become clear by a review of the literature that policing staff face different experiences in terms of their uniform based on their varying roles and ranks; various insignia, clothing and equipment can all potentially change their perception (and others perception) of the uniform.

Keywords

Community policing, neighbourhood policing, police, policing, police uniform

The psychological impact of neighbourhood regeneration and the role of place attachment

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Abstract

Neighbourhood regeneration is an important policy focus across the EU and there are currently numerous on-going projects across the continent (Colantonio & Dixon, 2011). The current research aims to explore the potential psychological impacts of neighbourhood regeneration on local inhabitants. Not just providing shelter and a sense of safety, the home is of emotional significance and is interrelated with identity, social networks and enables a sense of belonging. Research has shown displacement from a place of attachment to lead to a stressful period of transition involving a sense of grief and loss, as well as a period of mourning (Brown & Perkins 1992, Fried, 2000). The current research will be conducted in the Pendleton area of Salford, which is currently undergoing a long-term, £650 million regeneration project (Salford Council, 2012). Studies of neighbourhoods and communities have highlighted the significance of the role that the physical environment plays in life and how the inhabitants of the existing community cope with the changes to their socio-spatial environment should be taken into consideration (Bailey et al., 2012; Fried, 2000). The proposed project will employ a mixed-methods approach, exploring the role of place attachment in adaptation to place change and the impact on mental health and wellbeing. Working with the Pendleton Together team, and linking with the Public Health team within the local authority, this inter-disciplinary study will examine the impacts that regeneration is having and help to inform the development plans as they unfold over the next 15 years.

Keywords

Place Attachment, Mental Wellbeing

Investigating the impact of urban agriculture: a case study in Wythenshawe

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Abstract

In Urban Agriculture (UA) lies the potential to bring food production closer to the point of consumption, to contribute to urban food security, strengthen community cohesion and to improve the mental and physical wellbeing of those involved. Whilst proponents cite assumed social benefits of formal UA, there is still much to be explored regarding the way in which the practice is perceived and experienced by its participants. As urban food projects proliferate across the UK amidst austerity-induced council cutbacks, it is important to consider not only how these imposed ventures affect the people they are intended to help, but also to unravel the motives and methods of those who manage the projects.

Real Food Wythenshawe (RFW) is an example of such a project and was awarded £1 million by the Big Lottery to pioneer the practice of UA in Wythenshawe, South Manchester. The project, which is run by staff at the Wythenshawe Community Housing Group, seeks to encourage the people of Wythenshawe to grow and cook fresh, healthy and sustainable food and has stimulated the development of several UA activities across the area. This research will adopt a case study approach to seek an in-depth appreciation of how residents of Wythenshawe perceive and interact with growing sites that have been developed or restored by RFW. It also aims to explore the ambitions of the team who designed the project and the motivations driving its implementation.

Keywords

Food security, Urban Agriculture

Lived experiences and 'surplus food redistribution': methodological considerations

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Abstract

I present my plan for an ethnography of 'surplus food redistribution' (SFR) in Greater Manchester. I suggest ways to engage empirically with the question of whether SFR constitutes a 'win-win' solution to hunger and waste, as part of my wider PhD exploration of the so-called 'paradox' of high levels of food waste and growing evidence of hunger and food poverty in the UK. Research will compare different organisations' practices: the acquisition, cooking and distributing of surplus food, as well as their conceptualisations of 'proper' eating, food 'values' and food poverty. These activities will be placed in a context of wider concerns over the sustainability and justice of global food systems, poverty in a neoliberal state and the 'Right to Food' critique of food charity. Research will attempt to attend to the (under-researched and under-theorised) affective, sensory and material aspects of food and eating. The presentation will focus on reflexive ethnographic method and tools from participatory action research as means to engage with the empirical, discursive and contextual understanding of the lived experience of those participating in surplus food redistribution.

Keywords

Food waste, food poverty, eating, surplus food redistribution, sustainability, social movements, sensory ethnography

Using Focused Ethnography to explore maternal movement during labour

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Abstract

Labour and childbirth can be interpreted as a chain of inseparable intertwining elements, one of which is the emotional significance of the experience. A holistic view which places women at the centre of care and values women as a whole person and most significant within the labour and birth process (Davis-Floyd, 2001).

With the majority of births in the UK taking place in hospital it this places birth within a medical institution, governed by the medical model of care (Davis-Floyd, 2001). A hierarchy of social order exists within medical institutions dominated by a patriarchal ideology, which embeds the superiority of objective scientific exclusivity and knowledge (Foucault, 1963). The organisation and culture within the NHS are responsive to political and financial influences, which drive the availability of services offered (Deery, Hughes & Kirkham, 2010). Placing birth within the hospital environment has removed women from experiential and instinctive knowledge of birth (Kitzinger, 2001) with the expectation for women to assume the passive patient role immobilised on a bed (Jowitt, 2014).

Maternal movement during the first stage of labour is a natural aspect of labour behaviour which is available to most women (Jowitt, 2014).

How knowledge around movement is acquired, structured and justified by women, midwives and obstetricians and how this knowledge informs their beliefs around movement is unclear in the literature.

Using focused ethnography, my project shall address this and be explored through a feminist lens. My presentation will demonstrate why my chosen methodology is appropriate for this project.

Keywords

Methodology, Focused Ethnography, Maternity care, Feminist theory, midwifery

The effect of collectivism on family meal social interaction behaviour

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Abstract

The aims of this paper is to investigate the association between collectivism and family meal social interaction behaviours, identify the key determinants of family meal social interaction behaviour, and develop a model to guide those involved in marketing and product development. The data was collected using observations and one-to-one semi-structured interviews from a sample of 20 Sierra Leonean families living in the four provincial headquarter towns of Bo, Freetown, Kenema and Makeni. The data was analysed using thematic analysis and the main findings highlight that Sierra Leonean families displayed collectivist behaviour when interacting socially at the dinner table at mealtimes. The main factors that influence meal social interaction include conformity, ethnicity, reference groups, religion and social class. The results also highlight variations in meal social interaction based on the income of the family and a variation between Muslims and Christians with regard the type of food considered appropriate for consumption at the dinner table. It was concluded that the meal social behaviours of families have positive and negative effects on family structure and dynamics and especially on the way in which children are socialised into adulthood. The study recommends further research to address the gap identified by the research.

Keywords

Conformity, ethnicity, reference groups, religion, social class

Business and Built Environment: Facility Management, Construction and Manufacturing

Social Interaction Processes in Advancing Efficient and Sustainable Facility Management

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Abstract

The objective of my research is to find out the interactive mechanisms and patterns of institutionalization which affect people's behavior in buildings. The context of this research is the efficient use and sustainable facility management in educational buildings.

Buildings and their functional use is a strategic core function of organizations, especially in the field of education. Bringing human-building interaction into focus helps us to understand more about our physical environment's impact on our society. From the technology and facility management point of view the main object is to understand more about people's social behavior and its impacts on the use of buildings.

I will be applying theories, as well as qualitative research methods, used in the field of social sciences. I am building my theoretical background based on sociological approach to science and technology studies, as well as institutional organization theories; both based on social constructionism theory. Data will be collected using theme interviews and narrative methods. As a possible method for analyzing discourses, content analysis using categories could be used. However, I'm aware of some possible limitations and non-functionality, as well as more common contexts that this method is usually applied in.

Economic and ecological efficiency and sustainability are the target and fundamental reason and legitimacy of the research. However, these aspects are not the focus of the actual research, but merely considered as self-explanatory ambitions in the field of facility management. The Aim of the research is to find new information for developing tools and processes that help facility management to obtain these targets.

Keywords

Educational buildings, facility management, institutionalization, interaction, sustainability

Barriers to the Effective Implementation of TQM in the Nigeria Construction

Industry

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Abstract

Implementation of Total Quality Management (TQM) in the construction industry promises several benefits such as more repeat clients, reduced rework, improved employee job satisfaction, higher productivity, improved budget performance, improved schedule performance, better chances in bidding process with pre-qualification, increased market share, etc. However, there are several barriers to the extensive deployment of TQM in the Nigeria construction industry. The construction industry is different from other industries in many aspects such as one-of-a-kind product requirement, longer production process, temporary workforce, number of key parties involved, lack of effective teams, etc. It is commonly believed that TQM cannot be successfully implemented due to these peculiarities and Nigeria as a country is not left out. Moreover, many construction companies consider quality programs as an extra cost because of the fact that they are not totally aware of that the cost of non-conformance to quality is much higher than that of operating a quality programme. With the aim of giving this proposition a stronger empirical meaning, six key principles of TQM are used as a benchmark. This paper aims to investigate the barriers to the effective implementation of TQM in the Nigeria construction industry.

Keywords

Total quality management, implementation, construction industry, barriers, Nigeria

Innovations in construction cost management

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Abstract

There are various methods used in managing construction cost, some of these methods are just emerging in the construction industry while some have been in use over the years. Cost management methods such as target costing, value management, life cycle costing and traditional method of cost control which include estimating, budgeting and interim valuations are some of the known methods for controlling cost in the construction industry. over the years, due to the challenges of cost and time overruns, project delays, litigation and claims during construction projects, some construction firms have adopted new method such as intranet-based cost controlling, building information modelling and kaizen costing have been adopted. This study intends to assess the effectiveness of these new cost management methods in the various countries where it has been used. This assessment will be based on existing literature in the areas of construction cost management. This presentation will also delineate cost management methods used in different construction industries around the world. This presentation also intends to compare the feature of these emerging cost management methods with the older ones along in terms of merits, effectiveness and drawbacks.

Keywords

Cost, cost management, construction cost, methods

Issues of Market Orientation to be Handled in Saudi Construction Industry

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Abstract

Following the oil boom that made massive wealth for the country in the last decade, Saudi Arabia started developing non-oil-manufacturing industries like construction and real estate. In 2011, Saudi Arabia had the second highest real estate and construction project value in the GCC (Gulf Cooperation Council), worth £136.2 billion, constituting 35.0% of the total construction and real estate projects. Most of these projects are being executed by Saudi construction companies.

An observation of the Saudi construction environment supports considering a relationship between a market orientation and the performance of these companies. In fact, companies are increasingly realizing the usefulness of marketing in winning customer responses. Hence, given today's highly competitive business environment, market orientation is essential for the survival of any company.

Furthermore, several studies show a strong positive relationship between a market orientation and organisational performance and a number of attempts to assess a market orientation in different industries around the world has been made. However, very few attempts have taken place in the context of Saudi Arabia.

The aim of this paper is to examine the applicability of market orientation in Saudi Arabian construction industry.

The results show strong reasons to apply market orientation to measure the degree of market orientation within Saudi construction organizations.

Keywords

Market Orientation, Construction Industry, Saudi Arabia

GIS-based Pavement Maintenance Management Model in the UK

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Abstract

Roads are representing a major long term infrastructure investment. A well managed and maintained road stock is therefore fundamental to the safety and availability of the road network as a whole.

In carrying out pavement maintenance management functions, Local Road Authorities face growing pressures arising from inadequate budgets and greater accountability, when many of the existing roads have reached the upper limits of their design life spans while being subjected to increasing and unprecedented traffic loading.

There are many factors that influence the decision making process in pavement maintenance management, including funding and prioritisation decisions, and hence an efficient approach is vital to ensure optimisation and a satisfactory trade-off between conflicting factors.

The main key output of this research will be the development and testing of a GIS-based pavement maintenance management model to support decision making in pavement maintenance management.

The most significant factors influencing decision making in pavement maintenance management are established through a nationwide questionnaire survey, which is undertaken within the UK Local Authorities' practicing road managers.

The case study approach was adopted, based on Surrey County Council's roads practice within the UK, for obtaining the vital pavement maintenance scheme data that will be used in testing and validating the GIS-based decision support model.

Interviews were also conducted within different Local Road Authorities nationally and within the case study to verify existing pavement maintenance management practices.

Keywords

GIS, Maintenance, Management, Pavement

A Knowledge Management Framework to bring Collaboration and Partnering among Construction Supply Chains in the Context of Lean and Agile Process

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Abstract

Extensive studies in the construction sector and its supply chains and Lean and Agile Thinking shows there is a general lack of awareness and understanding about the roles and contributions Tacit Knowledge plays in collaborative and integrated approach in Construction Supply Chains and Lean and Agile process. There is paucity of empirical research within this area, especially, in the context of Transfer and Share Tacit Knowledge in Lean and Agile Processes.

There are several challenges indicated by other studies; fragmented supply chain, lack of trust and commitment, lack of partnering and collaboration and lack of efficient process. It is against this backdrop that this study aimed at developing a framework of Transfer and Sharing Tacit Knowledge within the context of Lean and Agile processes.

A systematic research methodology is adopted to collect quantitative data from respondents within the UK construction industry. Further, Frequency, Non-parametric and Spearman's Correlation Analysis tests are run to analyse the data. Following that, a systematic interpretive approach is adopted to make interpretations of data analysis.

This presentation kick-offs, with the poses the real world problems within the UK construction industry and current practices to overcome those. Further this exposes interesting facts about application of Lean and Agile thinking in Construction supply chains. Moreover, highlights the challenges and critical success factors to Transfer and Share Tacit Knowledge in Lean and Agile Construction Processes. It concludes with determinations of this research.

Keywords

Lean and Agile Construction, Construction Supply Chains, Transfer and Share Tacit Knowledge, Knowledge Management in Construction

Managing Change and Innovation in Lean Manufacturing Implementations on Automotive Firms

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Abstract

Since lean management systems has been widely accepted and applied in worldwide manufacturing companies. Basically, Lean Manufacturing (LM) concepts focus on low risk of improvement on their emphasis of reducing waste in the production lines. However, the low success rate of lean transformations on promoting innovation and change management in many countries has given a cause for concern. Applying LM to an organization often implies difficulties in promoting innovation that involve high risks and dramatic changes. This paper presents change and innovation on LM by Malaysian automotive sectors. A qualitative study was used. It was found out that these automotive sectors have been practising LM and are eager to implement the newly developed model of Lm to cater for Malaysian Automotive Industry.

Keywords

Lean Manufacturing, Innovation, Organisational Change, Qualitative Study

Civil Engineering and Ecosystems

Mitigating the Environmental Implications of Drilling Operations in Unconventional Shale Reservoirs

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Abstract

Drilling unconventional reservoirs are often challenged with issues such as shale hydration and bore hole instability which are associated with drilling fluids. Disposal and management of the preferred conventional diesel oil based mud used have been a major concern to the petroleum industry.

One of the ways to mitigate these problems is to formulate an environmentally friendly Invert emulsion drilling fluid substituting the conventional diesel oil with vegetable oils. This is in a bid to reduce the detrimental effects on the environment and cost of disposal while maintaining technical competence.

This study examines the rheological, stability and filtration properties of a vegetable oil based Invert emulsion drilling fluid with the following oil-water ratios: 60/40, 70/30, 80/20 and 90/10 while simulating down hole conditions at high temperature and pressure of about 120°C and 100 psi to determine any changes in the fluid properties. This will be comparing with the properties of the conventional diesel oil based fluid which is highly toxic to ascertain the possibility of replacing diesel oil based fluid with vegetable oil based fluid.

The experimental data will be correlated against pre-existing rheological models to predict the drilling fluid behaviour.

Keywords

Drilling fluid, Environmental compatibility, Invert emulsion

Piled Foundation Embedded in Sandy Soil with Cavities

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Abstract

Unlike most structural materials, soils behaviour is regarded as complicated. These soils have to be dealt with sensibly in order to use the structures built on them safely. One of the most common problems is the presence of cavities in the soil, which can be divided into two types; natural and man-made cavities. Natural cavities are due to water flowing (the gypsum dissolve) or the extinction (dry set) of some seas or water areas. Artificial cavities are due to the vault (oldest) building or underground piping maintenance.

Sudden failure of structures founded on such soils is normal to happen due to differential settlement caused by the formation of cavities before or after full load application.

Moreover the sudden changes of water table levels lead to the rapid dissolution of the gypsum into the soil mass, which extensively affect their maximum strength; cracks develop within the walls and roofs of the buildings.

The present study investigates (both experimentally and theoretically) the influence of cavities in the vicinity to buildings founded on piled foundations. As the presence of cavity affects the bearing capacity and settlement of such foundations, it was decided to carry out a research that can explore these aspects using a specific technique in order to create cavities in a model laboratory experiment positioned adjacent to the piles at different distances from the pile centreline and different depths from the soil surface. The behaviour of piles embedded in sandy soils with cavities under oblique load has been carried out. This study was an attempt to shed the light on a very important issue that most soils share. Results obtained by this research could have a big impact on the design procedure for piled foundation on such soils.

Keywords

Pile, Foundation, Soil, Cavity

Seasonal assessment of vertical-flow constructed wetlands treating domestic wastewater contaminated with hydrocarbon

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Abstract

The global population increase accompanied by a sharp increase in urbanization, and industrial and agricultural land use has resulted in a tremendous increase in the discharge of a broad range of pollutants including petroleum hydrocarbons to receiving watercourses. This has caused harmful impacts on the different components of the water environment. Wetlands are a sustainable and cost-efficient technology to treat large quantities of contaminated water, particularly in regions where land costs are low. The aim was to compare the impact of different design (aggregate size) and operational (contact time, empty time and chemical oxygen demand (COD) loading) variables on the long-term and seasonal performance of vertical-flow constructed wetland filters contaminated with two dosages of diesel spill. The results show that the filters contaminated by hydrocarbon performed worse in terms of COD and BOD, but considerably better regarding nitrate-nitrogen removal. No filter clogging was observed. The wetlands system shows a good performance regarding total petroleum hydrocarbon (TPH) removal.

Keywords

Aggregate, biochemical oxygen demand, chemical oxygen demand, diesel, domestic wastewater, pollution, reed bed, seasonal variation, suspended solids, sustainable water management

Experimental Study Of The Performance Related Properties Of The Asphalt Concrete Modified With Hydrated Lime

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Abstract

It has been recognized that there are many different types of the factors affecting the performance and durability of asphalt concrete pavement, including the service conditions, such as: the variation of temperature from mild to extremes and the repeated excessive axle loading as well as the inadequate quality of the raw materials. All of these when combined together are going to accelerate the occurrence of distresses in the pavement such as permanent deformation and fatigue cracking. The use of additives is one of the effective techniques adopted to improve pavement properties. It has been found that hydrated lime might be one of the efficient additives because it is widely available and relatively cheap. This paper presents an experimental study of the hydrated-lime modified asphalt concrete mixtures. Five different percentages of the hydrated lime additive are investigated, which was used as partial replacement of the conventional limestone filler. The concrete mixtures are designed for the application of three pavement courses, i.e. Surface or Wearing, Leveling and Base, Tests are conducted to evaluate the resistance to plastic flow and the fatigue permanent deformation at three different temperatures. The experimental results have showed an expected improvement on mechanical properties for all the designed asphalt concrete mixtures.

Keywords

Asphalt concrete, Additives, Hydrated lime, Mineral filler, Permanent deformation

Modelling Traffic Behaviour at Motorway Roadworks Sections with Narrow Lanes Using Micro-Simulation

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Abstract

Narrow lanes at roadwork sections as well as those labelled as “Smart motorway” sections are now commonly used. The purpose of using these narrow lanes is to significantly improve the overall capacity under the assumption that three narrow lanes, for example, have a significantly higher capacity than two full width lanes. This may be the case when using the default values of industry standard micro-simulation models, such as S-Paramics, to measure the overall capacity of an extra added lane even if narrower lane widths are in use. However, observations from roadwork sections with narrow lanes revealed that there is some noticeable difference in the behaviour with narrow lanes compared with normal width sections at the approach to roadworks (as well as within the work zone), especially when heavy goods vehicles (HGVs) are present. This could affect the capacity and safety levels at such sections. Field observations from the UK suggest that drivers on narrow lanes could be divided into “avoiding” and “hesitation” behaviours of passing HGVs in the adjacent lanes resulting from some turbulence on traffic operation. To evaluate the effect of such turbulence, field data were analysed and a new micro-simulation model was developed. The model has been calibrated and validated with field observations. Initial results suggest that lower capacity values were obtained compared with those from S-Paramics. The results from the newly developed model give more confidence that this model can be considered as a step closer in representing real life observations.

Keywords

Roadwork, narrow lanes, micro-simulation, modelling

Ecosystem Services of Carbon Sequestration

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Abstract

There has been substantial research on soil carbon budget/dynamics in many habitats including estuarine floodplains. That research has focused on the processes affecting storage of organic carbon using the bulk soil organic carbon method of determination. However, little attention has been paid to the fact that soil organic matter is made up of several pools each with a different degree of stabilization, which means current models of carbon sequestration as an ecosystem service are limited.

This research will quantify the potential for functional soil organic matter pools with specific turnover rates (the active, intermediate and passive pools) and places soil carbon sequestration in an ecosystem services context. This will be based on the following objectives: assess potential carbon sequestration, assess stabilization of soil organic matter with heavy metal, assess microbial biodiversity (pathways of organic matter decomposition leading to soil carbon accumulation), evaluate the impact of land use (salt-marsh to grazing salt-marsh) on carbon dynamic and make recommendations. This will lead to transition to low carbon pathways for reduce carbon emission, and increased attention to carbon sequestration as an ecosystem services.

The study will be conducted in the Upper Mersey Estuary. What makes this research interesting is that the study site is heavily contaminated which will allow the generation of new knowledge which will improve our understanding of how different soil organic matter pools influence the amount of carbon sequestration over time.

Keywords

Carbon dynamic, sequestration, salt-marsh, contamination, SOM Stabilization

Assessment of ecosystem services in a socio-ecological system: A case study of the Upper Mersey Estuary

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Abstract

For many years, the understanding of natural and social systems was studied separately. However, research is now moving from a reductionist view towards a more holistic one, looking at the interactions between humans and the natural environment.

This research project aims to explore connections between humans and ecosystems using the concept of ecosystem services and to evaluate critically the relevance of those ecosystem services in socio-ecological systems.

Based on a case study in the Upper Mersey Estuary (UME), this research project addresses the incorporation of ecosystems into a social environment. The UME offers good potential to understand the current connectivity of habitats, the potential to improve this, and therefore, create an example of wildlife conservation based on adaptive management.

The research will use qualitative research methods to collect information on the relevance of ecosystem services from a selected group of experts and the public. These data will be collected within the second half of the first year of the research.

This particular presentation will contain the findings from the literature review, focusing on the critical evaluation of the concept of ecosystem services as a relevant concept to assess the impact in a socio-ecological system. Further, the proposed methods for the data collection will be presented and placed in context with the research aim and objectives.

Keywords

Adaptive management, ecosystem services, socio-ecological system

Data Mining, Image Processing and their Medical Application

Image analysis and decision making for the Achilles Tendon

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Abstract

Today, ultrasound imaging plays a crucial role in medical imaging technologies. Ultrasound imaging is shown to detect important details in Achilles Tendon (AT) pathology when used in clinical investigation.

Speckle noise is considered one of the most common noises affecting the ultrasound images. It deteriorates the image, hiding much valuable information and complicates the biometric measurements. Thus, there is a critical need to develop a software model to detect changes in the brightness and the thickness of the AT ultrasound images and decide whether they are normal or abnormal.

The proposed application focuses on developing an automated system platform. Generally, systems for analysing ultrasound images involve four stages, pre-processing, segmentation, feature extraction and classification. In each stage various algorithms are used to determine the most suitable one for the AT ultrasound images.

The task of the pre-processing stage is to reduce speckle noise without destroying the important features of AT images for diagnosis. The goal in the second stage is to locate the suspicious areas by subdividing the image into component regions. Different algorithms will be applied on AT images and the results will be estimated to know which one is more suitable for this kind of image. In the third stage the researcher intends to compare different feature extraction techniques and adapt the most successful one to extract the most prominent features. In the final stage the classifier used the extracted and selected features to categorize the images into normal, abnormal or inconclusive.

Keywords

AT, Image Processing, Speckle, Ultrasound

Automated segmentation and visualization of tumours in MRI brain scans

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Abstract

Medical image processing now has a key role in clinical practice and diagnosis. The main objective of this study is to develop algorithms identify tumours in MRI brains scans. This follows from earlier work by the author which has been concerned with identifying abnormal brain scans by comparing the differences in the image statistics in the two hemispheres of the brain. The approach being taken to locate and visualize the abnormalities, usually tumours, combines genetic algorithms (GA) with the active contour based segmentation technique. The process involves generation a hundred cubic regions of randomly varying sizes in corresponding regions in the left and right hemispheres of the brain, and these are moved during the iterations of the GA towards the region of maximum dissimilarity between the two hemispheres. The region represents the approximate position tumor in the brain, and the centre is chosen automatically as a seed point for active contour based segmentation in the particular MRI slice. Subsequently, a 3-D description of the tumour is obtained, which can then be used to visualize the tumour, and also calculate its volume. The achieved accuracy of finding the tumour in each slice was 95% in a dataset of 88 patients provided by the MRI Unit in Al-Kadhimiya Teaching Hospital in Iraq.

Keywords

Computed Tomography (CT), Genetic Algorithm (GA), Magnetic Resonance Imaging (MRI)

Application of Deep Learning to Sign Language images

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Abstract

Image classification and regression is a very interesting area in computer vision, and for benchmarks the results that are obtained using Deep Learning techniques are very impressive. Computer interpretation of the signs in a given known Sign Language is very difficult because of the similarity of the variability in the sizes and position of the fingers or hands in an image. In view of this Deep Learning may provide a practical solution to this problem.

In this project, RGB images and D-RGB (depth + RGB) images of the fingers are used for learning and classification of the letters of the alphabet. The aim is firstly, to use an image dataset extracted from three fingerspelling languages: British sign language (BSL), Australian Sign Language (Auslan) and New Zealand sign language (NZSL), and then investigate the classification accuracy of Artificial Neural Networks; and secondly to develop a Deep Learning architecture using Convolution Neuron Networks (CNN) and compare the results on exiting benchmarks.

To accomplish this work, the dataset for BSL, Auslan and NZSL has been collected from YouTube. These data were by randomly mixed and 60% of the data used for training and 40% for validation and testing. The accuracy achieved for two handed finger spelling classification was 56.202% using a stacking autoencoder with sparse autoencoder and 55.144% for a linear decoder, and 54.663% using a very simple CNN with sparse autoencoder and 67.452% for a linear decoder. In order to improve the results on these datasets, a larger network and classification accuracy of nearly 90% was obtained by a Deep Belief Network (DBN) and CNN.

Keywords

Sign language, deep learning

The Impact of Image Blurring on lesion Detection Performance in Full Field Digital Mammography (FFDM)

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Abstract

Background: Full field digital mammography (FFDM) is the typical standard for early diagnosis of breast cancer disease. The early detection of small cancer is the main purpose of digital mammographic imaging that might be lost by blurring (motion artefacts) or lead to false diagnosis. Blurring has the potential to obscure small lesions and lesions which have low contrast to background ratios; as a result clinically significant abnormalities could go undetected, this may have an impact on patient care. The aim of this project is to analyse the impact of the image blurring on lesion detection performance in FFDM using Jackknife Free Response Operating Characteristic (JAFROC). The research will evaluate the impact on lesion detection performance on different levels of image blurring.

Objective: FFDM images will be evaluated using JAFROC analysis to assess the impact on lesion detection performance. The evaluation will focus on specific cancer sizes and types.

Method: The project will comprise of several stages. First, identification of mammography images, approximately half will contain cancers and half will not. Second, images will be degraded by introducing simulated motion, of known amounts. Third, evaluation of the images, using an Free Response Operating Characteristic (FROC) methodology, to determine lesion detection performance of blurred (simulated) and corresponding non-blurred images. This evaluation will be conducted by clinicians who are trained to detect cancer in mammograms. Finally, analysis of FROC data will be conducted to assess the impact that blurring has on lesion detection performance.

Keywords

Breast cancer, FFDM, Image blurring, lesion detection performance, JAFROC analysis

Case Based Reasoning System using Association Rules Mining Approach

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Abstract

Case Based Reasoning (CBR) is an increasingly important area for research and application in the field of Artificial Intelligence. It aims to solve new problems by adapting solutions that were used to solve previous problems as an alternative to the experience of experts. CBR is an effective method for solving a problem through four typical phases i.e. retrieval, reuse, revise and retain. Retrieval is a key phase in CBR, since it lays the foundation for the overall effectiveness of CBR systems. However, a major drawback in CBR is to retrieve wrong cases that lead to wrong decision. The aim of this study is to integrate association rules as a powerful technique in data mining to enhance the performance of retrieval phase. ARs are if\then statements that assist in revealing relationships between items in dataset.

In order to resolve a CBR drawback, we develop a new strategy that suggests and motivates mining association rules (ARs) of previous cases which could considerably strengthen SBR. Quantitative dataset are used from UCI repository website as an experimental data to achieve the target of this PhD project. The proposition for this study is to answer the question of whether ARs can be integrated into CBR system. This question can be answered by adapting the pattern of ARs with the end of Retrieval phase. Experiments have conducted and results show a link between ARs and CBR end to achieve the target.

Keywords

CBR, ARs, SBR, AK, SK

Workplace 2: Healthcare and Higher Education

Degree education as an entry requirement for qualified nurses: A case study to inform nursing workforce planning in Saudi Arabia

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Abstract

Aim: To determine the implications of Bachelor degree nurse education upon future workforce planning and development.

Contribution of the study: This study will contribute to nursing knowledge and workforce planning in several ways. Firstly, the papers reviewed explore education attainment and delivery in relation to health outcome (Al-Ahmadi, 2014; Alyasin and Doughlas, 2014; Aiken et al 2014; Majeed, 2014; Almutairi 2014). There is currently little consideration of workforce policy and planning implications following the introduction of degree education as a minimum requirement. Secondly, Whilst the papers reviewed give a local or regional perspective on the nursing workforce (Almalki et al, 2011; Chan & Marrison 2000; Fochsen et al. 2006; Oulton, 2006; Gazzaz, 2009; Alamri, 2011; AlYami, 2014; Al-Makhaita et al, 2014; Aldossary, 2008) they are small scale. While such research is requiring first describing and understanding the nursing situation, the proposed study will build upon this evidence and develop national strategies and recommendations for workforce planning. The outcome will be a series of action plans to underpin future workforce planning.

Research method: Case study qualitative method is chosen as a significant qualitative research strategy, it provides a useful set of information about the minimum entry to nursing practice in Saudi Arabia.

Conclusion: the proposed study will be the first within the MOH to adopt a consultative approach that involves key nursing and policy stakeholders at the macro, meso, and micro levels of nursing. It is not clear yet what the workforce planning implications are within the respective levels of policy and practice.

Keywords

Nursing education, entry requirement, minimum degree, bachelor, workforce, policy, Saudi Arabia

Tribes and Teams: How organisational culture affects healthcare quality improvement

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Abstract

This study explored the effect of NHS organisational culture on quality improvement (QI) sustainability within one NHS specialist healthcare service, three years after commencing a 5 year Quality Improvement Collaborative (QIC) programme.

A multiple case study, mixed methods approach was implemented. The Hospital Survey on Patient Safety Culture (HSPSC) (Agency for Healthcare Research and Quality (AHRQ), 2007) was distributed to all clinical staff n= 103; interviews were undertaken with participants at the meso (management) and micro (clinical) level n= 19 (meso level n=6, micro level n=13) within the specialist service.

Findings: QICs that had not sustained their improvement described a negative, hierarchical organisational culture; conversely, the sustained QICs described a supportive and open culture and actively believed that they had influenced a cultural change within their clinical setting. Tribal cultural environments provided descriptions of culture ranging from optimal, open and transparent, to inhibitive and intimidating across the various clinical settings of the specialist service.

Impact on practice: The notion of a tribal culture suggests a self-contained community with its own rituals and practices, despite being part of one organisation. This analogy is useful when comparing the issues of implementing the spread of QI to different areas of clinical practice across organisations, and indicates the importance of acknowledging the contextual factor of culture within specific clinical areas that may enhance or inhibit QI sustainability. Understanding the impact of diverse cultures that influence the success of sustainable QI programmes, may, in turn, lead to the development of alternative views of organisational change.

Keywords

Culture, healthcare, quality improvement

Professional Development of Healthcare Workers in International Placements: What is different?

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Abstract

This study aims to identify how learning happens for healthcare professionals on international placements and what makes it different from typical learning environments. The study aims to draw upon literature across various disciplines and weave together relevant learning and knowledge transfer theories. This process began with a systematic review of academic literature to extract educational outcomes of international placements and variables that could influence these outcomes. A Delphi study was then conducted to generate consensus amongst key stakeholders regarding the core outcomes of volunteering and international placements. A psychometric tool will then be developed (using novel and existing constructs/measures) to assess the core outcomes generated in the Delphi. The developed tool will be piloted on healthcare professionals using both an independent and repeated measures design. Any variables that could influence these outcomes will be recorded so that relationships between the two can be identified.

Keywords

Assessment, international, health-professionals, learning, volunteering

Developing a competency framework to underpin the primary health care nurse's role as a health educator in Saudi Arabia. A Delphi Study.

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Abstract

Objective: To identify the views of primary health care nurses, as to the competencies (knowledge, skills and attitudes) required in order to engage in health education within the primary health care setting. Although the primary health care nurse role in Saudi Arabia has been in existence for some time, there is no competency and curriculum framework supporting these roles. This study used a consensus-building methodology with expert panels to identify competencies for health education practice within the PHC setting.

Methods: The Delphi Technique was used with a sample of sixty PHC nurses who matched the inclusion criteria and took part in a three-round Delphi questionnaire. The first round asked participants opinions about what items should be included within a health education competency framework for PHC nurses by selecting (Yes, No, Uncertain). In the second round participants ranked the competencies from (1) to (5) using a Likert scale. In the final round participants selected agree or disagree for the competencies. A consensus criterion of 60% was adopted in the study, and descriptive statistics facilitated the presentation data.

Principal findings: The expert Delphi panellists identified 45 competencies for PHC nurses to engage in health education practice, and reached consensus. These competencies were classified into three domains: knowledge (22), skills (10), and attitudes (13).

Future work: In order to consider practical application and utilisation of the competency framework, there will be an interactive workshop with a sample of 5 nurse managers invited to take part and each nurse manager participating will be asked to bring along a service user to the workshop.

The results from this study, which contains 45 items of the competency framework for PHC nurses regarding health education, will be discussed and explored in the workshop. It will take place in April when the researcher goes to Saudi Arabia.

Keywords

Delphi Technique, Saudi Arabia, competency, nurses, knowledge, skills, attitudes

The Impact of Jaycustomer Activities on the Brand Perceived Image of Jordanian Higher Education Institutions

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Abstract

In recent times, jaycustomer activities in Jordanian higher education institutions have become a phenomenon. The aim of this study is to explore the impact of jaycustomer activities on the perceived brand image of Jordanian higher education institutions, and more specifically on international students attending Jordanian universities. This study is the first of its kind in Jordan that perceives campus violence from a marketing perspective. Both practical and subjective evidence suggests that service institutions are burdened with the concept of consumer sovereignty. Moreover, research on consumer behaviour is still over-focused on the functional rather than the dysfunctional. Dysfunctional customers are here referred to as Jaycustomers, who deliberately act in a thoughtless or in an abusive manner, causing problems for the firm, employees, or other customers. For reasons of clarity, this thesis adopts the term Jaycustomer in referring to the phenomenon of campus violence in Jordanian higher education institutions. A comprehensive review of related literature provides an opportunity for this research to fill a knowledge gap by providing empirical data around the relationship between Jaycustomers and the concept of perceived brand image of higher education institutions, especially from an educational marketing context. A qualitative empirical study was conducted using face-to-face semi-structured interview techniques with 25 international students in Jordanian universities. Moreover, a pattern matching qualitative analysis was used to analyse the findings. The findings reveal different drivers behind Jaycustomers activities as well as different types of these customers, the prevalence of Jaycustomers activities and their implications for the Jordanian Higher Education sector. Furthermore, Jaycustomer activities were found to have a negative impact on the international brand image of Jordanian higher education and subsequently affect the Jordanian economy. The negative impact of the Arab-Spring and the war in neighbouring countries largely contributed to patronising Jordanian higher education institutions by international students. The outcomes of this study can generate numerous implications for theorists and practitioners in the educational marketing field. Accordingly, the results provide a foundation on which future researchers can build.

Keywords

Jaycustomer, Jordanian higher education, brand image

The future of higher education: How technology will shape teaching and learning in universities in Ghana

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Abstract

The proposed research is designed to investigate the pedagogical impact of technology on future education higher education in Ghana. Higher education's purpose is to equip students for success in life—in the workplace, in communities, and in their personal lives. While this purpose may have remained constant for centuries, the world around colleges and universities is undergoing significant change. Higher education is under pressure to meet greater expectations, whether for student numbers, educational preparation, and workforce needs, or economic development. Meanwhile, the resources available are likely to decline. New models, an intense focus on the student experience, and a drive for innovation and entrepreneurship will ensure that higher education continues to meet society's needs. Information technology supports virtually every aspect of higher education, including research and e-learning which improves digital literacy of students and sustainability, and educators need to understand the range of problems their students face so they apply IT where it brings greatest value. Creating this future will require collaboration across organizational and national boundaries, bringing together the collective intelligence of people from backgrounds including education, corporations, and government.

Keywords

Pedagogy, digital literacy, educational technologies

Performance Management Systems in Higher Education Institutions in UK: A case study of University of Salford

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Abstract

In today's competitive scenario, every organization wants to achieve effective performance of their human resources. In this regard performance management practice of human resource management provides sound basis of evaluating and developing employee performance in order to get enhanced organizational success. Higher education has vital role for developing human resource in the economic and development growth of countries. Similar to any organization, universities or higher education institutions evaluate their employees/teachers performance for effective human resource management.

Performance evaluation of faculty members in terms of their teaching and research outcomes is a primary area of concern for any university. The current research investigates different aspects of performance management systems, how performance management systems can play a role in improving the performance of faculty members and its effect on the organizational performance in higher education institutions of United Kingdom. The study will explore the performance management system of University of Salford (UoS), United Kingdom.

The aim of this study is to analyze the performance management system of university of Salford and its impact on the performance of faculty members. It will elaborate on their performance evaluation procedures and strategies and unearths the influential factors and challenges which are faced by performance evaluation system. A case study research approach has been adopted by the researcher and the University of Salford has been taken for case analysis. Research has been undertaken by the methods of interviews and questionnaires, from faculty members of UoS and results will be analyzed for the basis of discussion.

Keywords

Higher education, Performance Management System

Three Minute Thesis Competition®

Hidden discourse in the construction of digital park heritages

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Abstract

Despite the significance of our use of places and objects in the creation of heritage meaning, discourses based on the lives of an eliticised few still dominate the heritage landscape. Similarly, the iconography of heritage buildings and places may perpetuate exclusive monolithic discourses. The development of new media may offer tools to facilitate constructivist heritage access as well as the potential for personalised involvement in the creation of heritage narratives, but issues of information design and technology bias may nonetheless impose power structures on digital heritage interpretation.

This research project looks into the effects of digital heritage on the context of heritage interpretation, specifically addressing the outdoor heritage of a park space. The research adopts a grounded theory based approach and reflexivity, as well as drawing on phenomenological archaeology. This combined methodology works towards discovering heritage meanings in the participants' own terms using both interviews and visits to the park with local park users. By translating these meanings into a digital format the research aims to explore the impact on the participants of both the digital object and the development process.

Discussing some findings from interviews and field visits with the participants, this presentation will focus on the difficulties that may arise in the creation of digital heritage. This will allow the researcher to draw some conclusions on the nature of digital heritage and its role in the perpetuation of eliticised heritage discourses.

Keywords

Digital Heritage

Corporate Manslaughter - Triumph or Disaster?

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Abstract

If the Hillsborough Stadium Disaster happened in 2015, would the outcome still be the same - no prosecutions for corporate manslaughter - or would corporations be held accountable for their actions?

Legal reform surrounding corporate manslaughter in England and Wales has been debated in political and legal arenas for centuries. This debate eventually saw the introduction of The Corporate Manslaughter Corporate Homicide Act 2007, which replaced the common law offence of Gross Negligence Manslaughter. However, there is a gap in existing knowledge surrounding reasons why there were so many missed opportunities from the 1600s through to the present day where legal reform, through case law or legislation, could have occurred.

Consequently, the key research question remains: What external factors inhibited that legal reform and still leaves an impact even now? The impact of the judicial interference, the business enterprise, reliance on alternative legislation, and the role of the church has left its mark.

The research will shed new light on why the interests of corporations which "have no soul to be damned and no body to be kicked" still take precedence over the kicked victims and dishonoured souls of future Hillsboroughs and arguably will keep on doing so.

Keywords

Corporate, Manslaughter, Corporation, Reform, Impact

Making Sense of the Information Systems Use Field

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Abstract

Information Systems (IS) Use has been discussed for more than three decades. During this time various perspectives of IS Use are shown to the literature that leads to a complex picture. Thus the main research question is “How to make sense of the IS Use field?” To begin to address this question we discuss the diversity and development of IS Use perspectives as contributing to this complexity. The standard ways of understanding diversity and development of perspectives as paradigms are found to be insufficient. Also, discussion of what paradigms are in philosophy of science is controversial and is unable to address both diversity and development of perspectives in the IS Use field. This thesis argues that Dooyeweerd’s philosophy can provide fruitful understanding of these. This is briefly tested by investigating of ‘what is important’ to the authors of seminal papers. Dooyeweerd’s aspects were used to analyse the relevant texts in these papers

The findings are that i) Diversity and development of IS Use Perspectives can be accommodated by Dooyeweerd’s aspects. ii) Through Dooyeweerd’s philosophy paradigm can be defined as meaningfulness. These will give one way of making sense of IS Use field. This way making sense of the IS Use field can contribute I) to theory in IS research by identifying six paradigms that does not fit with conventional paradigms II) To Dooyeweerd research community by showing the application of it in addressing the diversity and development of IS Use perspectives. Limitations and further works are discussed at the end.

Keywords

IS Use, Paradigms, Diversity, Development, Dooyeweerd

Investigating the Factors Affecting Business-to-Consumer E-Commerce

Adoption in Egypt

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Abstract

The Arab Republic of Egypt (ARE) is still in its early stages of using Business- to- Consumer (B2C) type of e-commerce and the diffusion of (B2C) is very fragmented. This study aims at investigating and identifying the major factors that affect the intention to adopt the (B2C) type of e-commerce in Egypt and to develop and design a model that can be used in measuring and investigating the factors that are affecting the adoption of the (B2C) in Egypt. Accordingly, this research intends to contribute to knowledge in the field of e-commerce by: [1] expanding knowledge in the field of (B2C) adoption of e-commerce and usage in Egypt 2] identifying the relevant factors affecting online shopping by Egyptian consumers as there is limited and fragmented literature available that empirically tests the adoption of B2C e-commerce and the e-purchase behaviour; [3] developing a model that can be used to measure and investigate the factors affecting the adoption of B2C e-commerce.

Having reviewed the literature, it was concluded that the extended Unified Theory of Acceptance and Use Technology (UTAUT2) is the theoretical framework for this study. The constructs used in the research model are: performance expectancy (PE), effort expectancy (EE), social influence (SI), hedonic motivation (HM), facilitating conditions (FC), and habit (HT). The proposed additional constructs for this study are online satisfaction (OS), online trust (OT), online interactivity (OI) and online security (OSY). Furthermore, this study adopts a quantitative methodology to answer the research questions and test the proposed sixteen hypotheses by using a sample of 600 respondents.

Keywords

UTAUT, B2C, E-commerce in Egypt

A parametric study on natural frequency

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Abstract

Many studies have investigated the effect of seismic loads on bridges; however, there is a need to carry on analyse these structures. This paper presents the results of a modal (natural frequency analysis) of a computer model of a curved box girder bridge, with a view to using the model to predict dynamic behaviour of structures under earthquake loading. Preliminary parametric studies have been carried out to examine the natural frequencies and modes of vibration associated with this structure as is usual for transient dynamic response studies. The model has been constructed using the finite element software ANSYS and is completely parametric, i.e. the user may change span, radius, box girder section dimensions and mesh density. 3 D finite element model of concrete box girder bridge has been obtained with a shell element for modelling purposes to create the sample of concrete box Girder Bridge. The result, according to this analysis reveals that the effect of bending moment has been clearly shown with lower frequency. However, when frequencies are higher, torsion starts to show up due to using a stiffer closed (box) section. To date, parametric studies have focused on the behaviour of bridge decks with varying span, radius and curvature. Boundary conditions appear to have a significant influence on the results of the modal analysis; thus, the main aim of this paper is to discuss the findings from the program by inserting some output graphs and conclusions about the research, plus some future recommendations have been included in this research paper.

Keywords

Curved Bridges, Earthquakes Loads, Natural Frequency Analysis, Finite Element Analysis, Parametric Study

Process Techniques of Digital Mosaic for Satellite Sensors

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Abstract

The field of satellite image processing has played an important role in creating efficient automated algorithms for the detection, identification and knowledge of the terrain. Large composite images are produced by mosaicking individual satellite images, where there is a smaller overlap that can be used to identify to optimum join. A major problem with the specific images used in this study is that they were taken many months or years apart by satellite with different spatial resolutions, and not only do the colours not match, some features in the terrain are different.

The main aim of this research is to develop an automated process for blending together satellite images with these problems. The work so far has involved analysing and processing of composite images of the suburbs in Baghdad, which have been mosaicked using existing software (ENVI), and where the colour differences and spatial resolution between the separate images can be observed. The processing stages involve firstly identifying the join between the individual images automatically, and then constructing histograms of the individual RGB colour components of the regions either side of the joins are constructed using MATLAB and various techniques for matching the shapes of these histograms are being investigated.

Keywords

(RGB)=(Red,Green and Blue)

Immersive Virtual Reality Design System

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Abstract

In contrast to the well-established use of immersive 3D technologies for simulation, experiential and consumptive purposes my work enables a user to fluidly create and design whatever they can imagine directly in front of them in true 3D space. It offers a sense of immersion and realism along with a powerful toolset that intends to relegate flat 2D computer based design to history.

This is very much a cutting edge area of research in which organisations including Microsoft, Walt Disney Studios and a few Universities have published research in recent months that is close to my work. Whilst it terrifies me that my work will get pipped at the post it is reassuring to know that I am running in the vicinity of research leaders.

My work brings together research from areas of stereoscopic (immersive 3D) imaging, motion tracking, bi-manual (two handed) control, embedded systems and many other areas to form an exciting composite study across a selection of related disciplines. It considers the methodologies by which humans naturally interact with objects, how we perceive space and by what means we best design and create. It demonstrates that reliance upon flat, pseudo-3D imaging such as traditional monitors whilst designing is merely familiar rather than particularly effective.

I look forward to offering a fast paced presentation upon how we can better integrate immersive stereo 3D into the design workflow as a faster, sufficiently accurate and more efficient design solution than existing flat visualisation technology.

Keywords

Design, immersive, reality, virtual

Tree approaches for Cost-sensitive Bayesian Network algorithm

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Abstract

Bayesian Networks are becoming an increasingly important area for research and application in the field of Artificial Intelligence, and Bayesian Network learning algorithm is one of the main methods of learning from data. Bayesian networks have been widely used in real world applications like medical diagnosis, image recognition, crime risk factor analysis, fraud detection, and inference problems. In all of these applications, accuracy is not enough because there are costs which involve each decision; costs of obtaining the data and costs of misclassification when classification errors occur. For example, in a fraud detection application, there are several costs involved when the classifier predicts a fraudulent case as a non-fraudulent case. Also, fraud databases have an unbalanced class distribution which is known to affect learning algorithms adversely. Thus, one of the challenging issues in the next generation learning algorithms is making algorithms consider costs during learning from data.

This paper develops new algorithms concentrating on the view that cost sensitive decision tree learning, this algorithms called Cost-Sensitive Bayesian Network algorithm that aims to minimize the costs that are related with a prediction, and to make a trade-off between accuracy and costs. In is work, we attempt to create a new Cost-Sensitive Bayesian Network algorithms have been implemented using three approaches (distributed sampling approach, and amending formula approach, Genetic algorithm). The new algorithms are evaluated on UCI datasets and compared to four well-known algorithms CSC, MetaCost, Naive Bayes, and Bayesian Network. The results obtained by carrying out an empirical evaluation on CUI repository data sets are presented and show improvements over current algorithms in terms of cost whilst maintaining accuracy and using.

Keywords

Cost-sensitive classification, Bayesian Learning, Decision Trees

Theoretical Calculations on Lead-Based Quantum Dots for Solar Cell

Application

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Abstract

As fossil fuel reserves are depleted a shift to renewable energy sources is required. Solar cell devices offer a compelling alternative. The current (2nd) generation of solar cell devices however are highly inefficient, with a maximum theoretical efficiency of ~30%. The 3rd generation of highly efficient solar cell devices is expected to be based on semiconductor nanocrystals (semiconductor crystals small enough that their behaviour is dominated by quantum mechanical effects) also known as quantum dots (QDs).

The allowed energies of electrons in the QDs form a discrete set. The particular values of these energy levels are dictated by the physical size of the QD as well as by the constituent material. By growing QDs of the appropriate size, they may be “tuned” to take full advantage of the solar spectrum. Absorption of a photon may excite an electron from its lowest energy state to a higher state, with any excess energy being lost in the form of heat. One scheme to overcome this inefficiency is multiple exciton generation (MEG), a process whereby excess energy may be used to excite further electrons. With a sufficient number of excited electrons, electricity may be produced.

Lead-based QDs are a strong candidate for MEG due to their electronic structure, however to date have not been studied extensively. The current work uses a combination of quantum mechanics and advanced computational algorithms along with supercomputer power to assess properties of lead-based QDs of varying size, shape, and composition required for third generation solar cell devices.

Keywords

Alternative energy, quantum mechanics, quantum dot

Canine echinococcosis in Kyrgyzstan: detection, diagnosis and dynamics

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Abstract

Since the collapse of the soviet regime in the early 1990s, human echinococcosis has been identified as an increasing public health issue in a number of Central Asian Republics. Domestic dogs are considered the most common source of human echinococcosis, and therefore control strategies for human echinococcosis are commonly based upon anthelmintic treatment of dogs. Similarly, detection of the levels of infection in a community (especially during a control scheme) is commonly based upon detection of Echinococcus-specific 'coproantigens' in canine faeces using ELISA tests. Despite the importance of this testing to surveillance, little work to date has investigated how best to interpret coproantigen data. My thesis is an exploration of different approaches to interpretation of coproantigen data both before and during a control scheme, and uses data collected over a period of 28 months from an area in southern Kyrgyzstan known to be highly endemic for echinococcosis. Bayesian mixture modelling was used to transform raw coproantigen data into a score which approximates the possible worm burden in individual dogs, and multiple correspondence analysis was used to characterise the study sites and identify possible associations with canine infection status prior to the commencement of the control scheme. Multimodel inference was used to evaluate risk factors and temporal trends in infection during the control scheme, and a mathematical model of transmission of both Echinococcus granulosus and Echinococcus multilocularis was developed. These approaches increase the information gained from simple surveillance tools, and improve the evaluation and communication of control scheme efficacy and impact.

Keywords

Diagnostic testing, Epidemiology, Parasitology, Statistics, Surveillance

Great crested newts: are populations thriving in the farmed landscape?

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Abstract

Background: Great crested newts (*Triturus cristatus*) have declined across Europe due to a combination of factors including pond loss and habitat fragmentation. Consequently they are among the most highly protected animals in the UK. Although legislation protects the species against deliberate damage to their habitat it does nothing to prevent “passive damage”, such as the loss of ponds due to neglect, lack of management or natural processes.

Focus of this research: The farmed landscape in England is of great importance for amphibians including the great crested newt. Ponds provide not only a breeding habitat but also “stepping stones” for interaction with nearby populations. This study is investigating questions relating to the conservation of great crested newts on farmland including:

1. Are isolated populations showing signs of stress?
2. Are individuals able to move between ponds, or are they isolated due to poor terrestrial habitat quality?
3. How does the age structure of populations vary between habitats of different quality?
4. How big are great crested newt populations on farmland and how does this correspond to effective population size?

Research methods: Seven study sites in Lancashire, including nine study ponds, were visited in 2013 and 2014. Seven of these are on farmland and two have been used as controls. By the end of 2014:

1. Nine Populations had been estimated using capture-mark-recapture.
2. The age of over 200 individuals had been estimated using skeletochronology.
3. Eggs have been collected from 23 ponds as the basis for comparison using microsatellites.

Discussion: This study brings together different research methods in a holistic approach to the conservation of great crested newts on farmland. It is the first to investigate the age structure of populations in England and the first to investigate the effects of isolation using genetic techniques. Results of this research will be used as evidence to encourage the practical conservation of this species on farmland.

Keywords

Farmland, metapopulation, microsatellite, population, skeletochronology

Four-dimensional leaf phenology

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Abstract

Phenology has been identified as the most responsive aspect of nature to global warming, providing a significant resource with which to examine how species and ecosystems respond to shifts and variability in climate. Compelling evidence exists that the timing of UK tree phenophases is already changing as a result of a warmer climate, and earlier greening, leaf emergence, and fruiting is predicted in the future with high confidence in the 5th IPCC assessment report (released March 2014). Furthermore, the timing of budburst of Oak is an official UK Government indicator of climate change but significant challenges remain as to how to best measure changes in forests and prepare for future climatic scenarios. Terrestrial Laser Scanning (TLS) provides a permanent, three-dimensional (3D) record of forest structure and allows the extraction of more detailed, accurate, and quantitative information than existing methods on the distribution and condition of woodland canopy components. Developed by the University of Salford and Halo Photonics Ltd, the Salford Advanced Laser Canopy Analyser (SALCA) is the first dual-wavelength, full-waveform, terrestrial laser scanner for characterising forest canopies with the ability to distinguish between foliage and woody material. This study marks the first demonstration of 3D leaf area measurement to improve characterization of woodland phenology, using data acquired during systematic hyper-temporal fieldwork in Delamere Forest, Cheshire. Developments in this area may have impacts on climate science, as well as implications for land management, human health, habitat use, among many other ecosystem services.

Keywords

Forestry, LiDAR, phenology, terrestrial laser scanning

The Relationship Between 3D Biomechanical Variables Across Typical Athletic Tasks

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Abstract

Dynamic knee valgus is a combination of movements of lower limb including frontal and transverse plane motion at the hip, knee and ankle, which contribute to frontal plane motion of the knee during athletic tasks (Hewett et al., 2005). Moreover, increased dynamic knee valgus associated with PFPS during single leg squat and running tasks (Crossley et al, 2011; Dierks et al, 2008; Willson & Davis, 2008) and with ACL during landing and cutting tasks (Krosshaug et al, 2007; Hewett et al, 2005; Olsen et al, 2004).

Several attempts have been made to correlate the biomechanical variables among functional screening tests within the same population (Jones et al, 2014; Kristianslund & Krosshaug, 2013; Harty et al, 2011; & Whatman et al, 2011). However, the findings of above-mentioned studies consisted only of female athletes; therefore application of findings outside this population should be pursued with caution. In reviewing the literature, no study that has investigated the correlation of dynamic knee valgus variables in a large population during distinctly different movement tasks in healthy population.

The aim of this study is to investigate the association between dynamic knee valgus motion & loading during single leg squat, single leg landing, running, and 90° cutting tasks. This data should provide further insights into the potential poor biomechanics in causal factors linked to both ACL and PFP injuries, and thus facilitate more effective screening of individuals at increased risk of such injuries.

Keywords

Cutting, Dynamic Valgus, Single Leg Landing, Single Leg Squat, Running

Investigation of definition, clinical assessment and treatment of patient with patellofemoral pain syndrome: Delphi method study

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Abstract

Introduction: Patellofemoral pain syndrome (PFPS) is a musculoskeletal condition presenting with anterior knee pain or retropatellar pain. It is a common amongst athletes and non-athletes with incidence estimates of 60% within the athletic population and 25% within the general population.

Objective: to investigate the definitions, causes, clinical assessment and treatment options for patients with PFPS.

Methodology: A Delphi method has been used for this study. Three round studies have been conducted to reach to the consensus, open end qualitative surveys, a semi-structured interviews of qualitative data and ranking structured qualitative survey across the world utilized Survey Monkey website.

Result: Briefly in 1st round study, 29% of participants indicated that biomechanics is the primary cause of PFPS. For the assessment, pain whether localized, on testing or on flexion knee position was indicated by 32% of participants. In terms of treatments, 54% of participants indicated that exercise therapy is effective for PFPS treatment but strengthening exercise is more effective than stretching exercise. In 2nd round study, eight of ten of experts indicated that the definition of patellofemoral pain syndrome has not yet been clarified. In 3rd study, 5 of 9 of experts stated that the pain on ascending stairs or descending stairs was the most important findings related to PFPS. The retro-patellar pain is the primary symptoms of PFPS. The findings of PFPS causes were the overload-overuse following by proximal and distal biomechanic.

Conclusion: This study has reached to the consensus by experts in many aspects of PFPS.

Keywords

Patellofemoral pain syndrome, Anterior Knee pain, Causes, Clinical diagnosis, Differential diagnosis, Assessment, Treatment and Intervention

Medication Administration Errors Perceptions by Saudi Nurses

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Abstract

The study was designed to explore nurses' experience of medication administration errors in Saudi Arabia, nurses' views about the factors that may influence medication administration errors, barriers to error reporting and the strategies to promote safe medication administration.

Methods

The methodological design adopted for this study is a non-experimental descriptive mixed method. Quantitative and qualitative components were applied sequentially in two phases. These included questionnaires (N=236), and semi structured Interviews (N=19) to further explain nurses' beliefs and views on managing medication errors in Saudi Arabia.

Results

Thirty percent (30%) of nurses in the study have witnessed errors during the last year of practice before commencing the study and more than half of nurses believed that these errors were due to main three causes; high workload, pressure to complete medication quickly, and poor handwriting by doctors. Nurses were keen to report errors because of patient safety and patient rights. However nurses rated fear of punishment as the main barrier to error reporting.

Conclusion

Despite the multicultural nature of the Saudi nursing workforce, culture did not appear to have much influence on nurses views. Nurses believed that a supportive environment would encourage them to report errors and believed that education, using technology and clear guidance can reduce errors. Education and activation of Saudi code of practice for medication administration is important. Further research is also necessary to expand nurses' knowledge on the topic and provide them with tools to manage errors and assess organizational support to provide quality care services.

Keywords

Medication errors, medication administration errors, perception, nurse

Lifestyle self-management experiences of South Asians

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Abstract

Accounting for more than 110,000 deaths in England every year, heart diseases remain the biggest killer in the country (Townsend 2012). One heart attack occurs every 2 minutes, survivors of which are at an increased risk of recurrent infarction. Adopting a secondary preventive approach such as self-management has the potential to avoid further heart attacks and improve health related quality of life (British Association for Cardiovascular Prevention and Rehabilitation 2011). Reviews such as De Gucht et al (2013) have shown indisputably that lifestyle self-management, including physical activity, healthy diet and smoking cessation, alters the course of heart disease, reduces recurrences and as such is considered a key component of a cost-effective public health strategy to reduce the rising burden of this disease. Yet these lifestyle changes advised after a heart attack is not easy to accomplish as they are often entrenched and entwined in ethnocultural practices. Moreover, these patients are not consulted about what social and emotional support they would prefer to receive to guarantee a therapeutic lifestyle modification, thereby weakening their ability to choose and prioritise as well as sustain changes for better health outcomes. One way to conceptualise the necessary knowledge for reflective application is to explore self-management experience through the lens of ethnicity. Pioneering of its kind, this proposed study will use a grounded theory approach to elucidate how South Asians navigate these lifestyle changes, the findings of which will inform the development of supporting negotiating strategies by capturing concepts that crystallises the significance of lifestyle self-management.

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Keywords

Grounded theory, Heart attack, Lifestyle, Self-management, South Asian

Exploring health worker motivation in Uganda: The roles of voluntarism in embedding behaviour change

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Abstract

In the context of Uganda, the role of professional voluntarism in promoting health worker motivation and embedding behaviour change is relatively a new concept. Much of existing literature focuses on financial incentives with inconclusive findings. Hence much work is needed to interrogate the impact of voluntarism on health worker motivation and behaviour change. Against this backdrop, health care facilities across Uganda have been chosen as the basis for qualitative as well as quantitative research, with the first wave of data currently being scrutinised. Phase one of this thesis was conducted across five health facilities in Uganda and generated 38 'structured' interviews (15 males & 23 females), including 11 midwives, 12 nurses, 4 anaesthetists, 3 doctors, 1 surgeon and 7 biomedical engineers. Preliminary findings indicate that Ugandan health workers have gained 62 skills (47 clinical & 15 non-clinical) from engaging with volunteers, with positive impacts on motivation, behaviour change and service delivery. But, health workers expressed concerns in the implementation of acquired skills, with lack of opportunities (resource limitation) and hierarchies (positionality & seniority within the Ugandan Health Systems) presenting the biggest obstacles. Analysis of this continues and recommendations will be made to all stake holders including Ugandan partners, volunteers, volunteer sending organisations and sponsors such as the Sustainable Volunteering Project (SVP) and Health Education North West (HENW).

Keywords

Voluntarism, Health Worker, Uganda, Motivation, Behaviour Change, Recommendations, Stakeholders

Posters

The Association Between Hop Tests and Various Tests of Balance Performance

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Abstract

Background: In sports rehabilitation, balance testing has become a major part of outcome measurement; it is documented as an important aspect during the sports rehabilitation process. In the field of sport rehabilitation, many researchers have tried to develop both clinical and laboratory measures to identify and explain deficits after injuries. However, there is lack of literature exploring the relationship of lower limb balance performance (as measured in the laboratory) with hop tests (field test) especially with regards to the role they may have defining hop performance.

Design: A correlation study.

Setting: Undertaken in the Human Performance Laboratory at the University of Salford.

Participants: 20 recreational athletes, 11 males and 9 females, were recruited (age 33.65 ± 3.47 years; height 170.9 ± 5.87 cm; and mass 81.05 ± 15.93 kg).

Interventions: Two different tests have been undertaken on both legs:

1-Hop tests, which include horizontal hop for distance and crossover hop tests.

2-Balance tests, which include straight leg balance test (sway area), bent leg (30°) balance test (sway area), and time to stabilization from forward hop (TTS).

Main Outcome Measurements:

1-Hop tests: maximum distance when undertaking single/crossover hop for distance.

2-Balance tests: the sway area for the subjects throughout two tests which are straight leg and bent leg tests was measured. While TTS was calculated during forward hop land task.

Results and Conclusion: It would appear that performance of standard hop tests is not associated with a participant's static or dynamic balance ability. Future research is required to identify which parameters do relate to the performance of functional field tests such as hopping.

Keywords Hop tests, balance tests, sway area, TTS

Degree education as an entry requirement for qualified nurses: A case study to inform nursing workforce planning in Saudi Arabia

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Abstract

Aim: To determine the implications of Bachelor degree nurse education upon future workforce planning and development.

Contribution of the study: This study will contribute to nursing knowledge and workforce planning in several ways.

Firstly, the papers reviewed explore education attainment and delivery in relation to health outcome (Al-Ahmadi, 2014; Alyasin and Doughlas, 2014; Aiken et al 2014; Majeed, 2014; Almutairi 2014). There is currently little consideration of workforce policy and planning implications following the introduction of degree education as a minimum requirement.

Secondly, Whilst the papers reviewed give a local or regional perspective on the nursing workforce (Almalki et al, 2011; Chan & Marrison 2000; Fochsen et al. 2006; Oulton, 2006; Gazzaz, 2009; Alamri, 2011; AlYami, 2014; Al-Makhaita et al, 2014; Aldossary, 2008) they are small scale. While such research is requiring first describing and understanding the nursing situation, the proposed study will build upon this evidence and develop national strategies and recommendations for workforce planning. The outcome will be a series of action plans to underpin future workforce planning.

Research method: Case study qualitative method is chosen as a significant qualitative research strategy, it provides a useful set of information about the minimum entry to nursing practice in Saudi Arabia.

Conclusion: The proposed study will be the first within the MOH to adopt a consultative approach that involves key nursing and policy stakeholders at the macro, meso, and micro levels of nursing. It is not clear yet what the workforce planning implications are within the respective levels of policy and practice.

Keywords

Degree education, entry requirement, qualified nurses, nursing workforce, Saudi Arabia

Employment status and sustainability, and person's work ability among Chronic Kidney Disease patients receiving Haemodialysis in the Kingdom of Saudi Arabia

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Abstract

Functioning at work can be impacted by individuals' health conditions. Chronic kidney disease (CKD) patients undergoing Haemodialysis (HD) are more likely to have a reduction in their ability to work in an effective and efficient manner. As a result, helping workers to sustain their employability and maintain productivity is important and a challenge. This study seeks to explore employment status, individual's work ability and employment sustainability among CKD patients undergoing HD. The research will generate a deeper understanding of who, what, why and how HD patients continue to work, or not, alongside managing a long-term condition. Four key objectives for this study include (1) to determine the employment status alongside demographic characteristics of HD patients (2) to examine the facilitators and barriers to work and sustained employment for HD patients (3) to investigate the relationship between individuals' ability to work, sustain work, availability of work and characteristics of HD patients (4) to explore the application of the Capabilities Approach theory to explain and offer new insight as to how the facilitators and barriers may affect work ability and employment sustainability among HD patients. The study will take place in the largest two dialysis centres (urban and rural area) in Riyadh province, Saudi Arabia and the target populations are HD patients in working-age, 18 to 65 years old. The study uses a cross-sectional mixed-methods sequential explanatory design, combining the qualities of both quantitative and qualitative approaches to uncover the best available data to gain a better understanding of the research problem.

Keywords

CKD, Haemodialysis, Employment, Capabilities Approach

Emotional Intelligence as means of enhancing leadership styles among Faculty members in Nursing College of Health Science in Hail University, Saudi Arabia

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Abstract

Background: The global increase in the need to strictly manage organizations effectively call for additional traits in leadership to enable enhanced organizational performance. Emotional Intelligence (EI) has been identified among the suitable approach in which leadership capability could be enhanced. This review considered nineteen studies, which included descriptive, systematic reviews and opinion based papers in USA, UK, Hong Kong, European Countries, South Korea and Australia to establish the research relationship between emotional intelligence and leadership styles; these were through careful analysis reduced to fifteen. The review aims to utilise the findings in extending the applications to Health Colleges in Saudi Arabia to cater for the existing leadership lapses in order to provide better organizational outcomes.

Objective: The objective of this review is to assess the relationship between emotional intelligence and performance outcomes in USA, UK, Hong Kong, Australia, South Korea as a means of implementing similar applications in the Saudi Arabian Health colleges for enhanced leadership outcomes.

Method: Twenty articles were carefully selected from COCHRANE, OVID, Science direct databases based on the year of publications and study relevance guided by the inclusion and exclusion procedure within 10 years.

Results: The results were obtained in this review based on synthesis of arguments from both descriptive and systematic reviewed papers. Two major findings were made: Emotional Intelligence has been successfully employed in increasing performance outcomes across different regions such as USA, UK, Hong Kong, European Countries and Australia. Also, the emotions can be understood to be used among employees for measurement of performance, although gender variability may play an important role in emotions. This review has shown the feasibility of achieving enhanced performance by adopting emotional intelligence strategies across employees in the Nursing college of Health Sciences, Saudi Arabia.

Conclusion: The success rate of achieving enhanced performance outcomes in USA, UK, European Countries, Australia, Hong Kong and South Korea using emotional intelligence has equally shown the potential of achieving similar results in Saudi Arabia despite unreported cases of emotional intelligence applications in Saudi Arabia prior to this review.

Keywords

Emotional Intelligence and Leadership style, Leadership style and effectiveness, Behaviour and emotions

The impact of a school-based, nurse-delivered asthma health education

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Abstract

Background

In Saudi Arabia, more than 2 million people complain of asthma: 13% being aged 6-10 years. This makes asthma one of the most common illnesses among children in Saudi Arabia (Al Frayh et al 2001, Alamoudi 2006, Ministry of Health 2010). Little has been explored about children's ability to learn more about their own asthma in Saudi Arabia.

Aims

The study was designed to assess the impact of a school-based, nurse-delivered asthma health education programme on asthmatic children's knowledge and attitude towards asthma, quality of life, anxiety level, and school absenteeism.

Methods

A quasi-experimental, non-equivalent group, pretest-posttest design was used. The education programme was developed from existing evidence. The Paediatric Asthma Quality of Life Questionnaire, Spence Anxiety Tool, Asthma Knowledge Questionnaire, and Asthma Attitude Questionnaire were employed for data collection in 2013. Intervention (n=130) and control (n=98) groups were drawn from 10 schools in Hail region, Saudi Arabia. Both descriptive and inferential statistics were used to examine differences between groups.

Results

The level of asthma knowledge was increased significantly more in the intervention group than in the control group ($F=26.5746$, $df\ 2$, $p<0.001$). Attitude toward asthma was not changed by the intervention ($F=0.0490$, $df\ 2$, $p=0.9522$). There was a significantly greater reduction in the intervention group than in the control group in anxiety ($F=3.7599$, $df\ 2$, $p=0.0242$), and in absenteeism from school ($F=2.98$, $df\ 2$, $p=0.003$). Total quality of life increased significantly more in the intervention group ($F=87.6534$, $df\ 2$, $p<0.001$).

Conclusion

The asthma educational programme impacted positively on students' knowledge, anxiety, quality of life, and school attendance. However, asthma education did not change attitudes towards the condition. The results, emphasise the benefits of provision of health education directly to children. Asthma education should be integrated into the KSA national child health programme.

Keywords

Asthma, children, education

The experience of young onset dementia: emerging findings from a qualitative exploration of relational transitions and continuities in the face of a progressive condition

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International concern about dementia has been growing in recent years, with the condition being viewed as one of the major health challenges affecting the world today (Department of Health, 2015). Dementia is often considered to be a condition associated with later life; however, a recent study by the Alzheimer's Society has estimated that there are over 42,000 people with dementia below the age of 65 in the UK (Alzheimer's Society, 2014). Research into the needs and experiences of younger people with dementia and their families is currently an under-developed field of study.

Despite acknowledgement that young onset dementia is a progressive condition that affects families in dynamic and complex ways (Harris & Keady, 2009), the majority of qualitative research studies are cross-sectional and are conducted with individual participants. This poster will report on emerging findings from a doctoral research study that aims to gain a multi-dimensional temporal understanding by following families where one person has young onset dementia for a period of twelve months.

There will be a focus on the following topics: transitions and continuities in self, identity and familial relations; experiences of diagnosis; changing perceptions of temporality; the impact of political discourse on individual lives, and experiences of stigma and marginalisation. The emerging findings will be considered in relation to existing theoretical frameworks from the sociology of chronic illness.

Keywords

Family research, qualitative longitudinal methodology, young onset dementia

Exploring the effectiveness of Rogers' psycho-therapeutic model

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Abstract

The use of psycho-therapeutic interventions within prison over recent years is wide-spread. In order to improve the results of therapy, it is necessary to measure the effectiveness of the outcome. (Castonguay, 2013).

One model of therapy is Carl Rogers' (1951) person centred this includes nineteen theoretical propositions. I am interested specifically in the fifteenth proposition which concerns the condition described as significant, emotionally appropriate living from the client's perspective. This condition is a necessary requirement for the client's freedom to express themselves which is the successful outcome for the therapy.

However, the measurement of outcome concerning the above condition is difficult to gauge - in particular because of the hostile environment within prison which encourages the client to enter a state in which life is stripped of purpose and responsibility, termed by Heidegger (1927) as *dasein*.

Incarceration excludes the possibility that individuals experience and express themselves in an open manner without fear. Sartre's (1945) 'existential anxiety'.

My research method is Integrative Phenomenological Analysis (IPA). Phenomenology includes the condition noted above. For a comparison I will include Merleau-Ponty's (1945) phenomenological sense of embodiment within the world. I intend to create a new understanding between the relationship of prisoners, their environment and prison counselling. This includes understanding prisoners' awareness of time and reduced freedom of choice through their experience of anxiety (Smith, (1999).

The aim of my poster presentation is to present initial results from my literature. The depth of the literature has the potential to offer measured research.

Keywords

Anxiety, outcome, prisoners, psycho-therapy, Rogers

Effectiveness of an obesity prevention programme to improve healthy eating habits among Saudi schoolchildren aged 9 to 15

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Abstract

Study aims

To investigate the effectiveness of interventions in promoting healthy eating in Saudi children.

To explore the relationships between lifestyle factors (dietary habits, physical and sedentary activity) and the development of obesity among the participants.

Methods:

Cross-sectional field experiment

90 children (9-15) and parents

Pre-test & 3-months post-test

anthropometric measures

questionnaire surveys

interviews

3 month intervention strategy: diet & nutrition education, physical activity & lifestyle workshop. Interactive session & special dietary plan for children.

Keywords

Childhood obesity, Intervention, prevention

Determinants of Turnover Intention among Faculty Members in KSA

Universities

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Abstract

The issues associated with employees' turnover will impact on the quality of the academic outcomes and performance within any academic institution, as this issue is related to many factors, since actual turnover today has become increasingly complex. For this reason, the main goal of this study is to identify the causes and stimulators governing employee turnover intention which then lead to actual turnover. This research will concentrate on the determinants of turnover intention among faculty members at Saudi universities, and attempts to understand the phenomenon of the intention to quit among faculty members, and the factors that impact on the employees' thoughts about leaving their organizations. However, this study will also focus on turnover intention rather than on the actual turnover because the employee's intent to leave is considered to be one of the most significant indicators of actual turnover, and there is predictive power associated with this. Thus, in this paper, the researcher investigated turnover intention that is attributed to the psychological, organisational, and economic dimensions of faculty members and academic institutions. This research is based on analyzing the facts and information, where the research methodology used is the quantitative approach which was built on a questionnaire as a primary source. Furthermore, it aims to tackle the issues that intend to securitize the indicative significance and complexity of the issue according to the employee him/herself, and the organization itself.

Keywords

Employees, Turnover intention, Organisations

Library and Information Science (LIS) professionals' potential acceptance of Massive Open On-line Courses (MOOCs) as a continuing professional development (CPD) tool

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Abstract

This study explores LIS professionals' potential acceptance of MOOCs as a CPD tool, which develops competent skills in the developing educational environment of the digital era. The results will analyse the views LIS professionals have towards MOOCs, which will focus on different perceptions of librarians, library managers, and LIS academic members to support or hinder MOOCs' acceptance.

The research used the phenomenological or qualitative approach, with a positivism or quantitative approach, as both are vital in addressing the main aims, which will be combined through mixed-method. The data will be collected through an online questionnaire and semi-structured interview from LIS professionals at a higher educational institution in Kuwait, using the Theory of Unified Theory of Acceptance and Use of Technology (UTAUT).

The anticipated contribution to the research is a strategy to increase MOOC's acceptance as a CPD among LIS professionals, with suggestions to MOOCs' providers on how to design them. Additionally, these factors will be defined on LIS professionals' acceptance of MOOCs as a higher educational professional tool, particularly in the context of providing greater insight regarding Kuwait. Likewise, the potential for enhancing MOOCs as a CPD tool for LIS professional in Arabic countries (specifically Kuwait) will be ascertained, which will gain a rich insight into MOOCs' possible acceptance, together with the application of UTAUT, as this has never been explored previously in an Arabic country.

Keywords

Library and Information Science professionals, Continuing professional development, Massive Open On-line Courses, E-learning, Technology acceptance

An empirical investigation on the enables and inhibitors of resiliency in the UK food supply networks

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Abstract

Food is, of course, essential to the continuation of human life, and today's food supply networks are becoming more multifarious and vigorous. This research is being conducted on major food companies (YUM Group, Warburtons and Yearsley Logistics) that have a large market share within the food industry in the United Kingdom. According to the UK Government report on 2014, food supply networks play a significant role in the country's economy, accounting for seven percent of Gross Domestic Product, and food manufacturing is the largest manufacturing sector in the UK. It is a sector which is, therefore, making an important contribution to growth, including through expanding exports.

In more detail the aim of this study is to investigate "Resilience" as a form of Capability for Risk Mitigation within Food Supply Chains. This research will identify influencing factors that can affect Supply Chain resilience i.e. its enablers and inhibitors and their interactions. The overall goal of this study is to identify the most influential food supply chain vulnerabilities as well as the pertinent organisational capabilities, which would enable companies to bounce back in unexpected disruption scenarios.

This research uses a case study strategy. The tools for collecting the data are semi-structured interviews, none-participant observations and secondary data collections. Secondary data will be gathered through screening the company data such as internal strategy or process documents, supplier evaluation tools and supplier questionnaires or business continuity plans.

Keywords

Resilient Food supply, Risk, Theoretical framework, United Kingdom

Environment's legal protection from air pollution in Iraq and the United Kingdom

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Abstract

Through the recent years, the Iraqi environment has encountered different challenges; firstly, the illegal and non-scientific exploitation of the resources which lead to a waste of the elements in the environment. Secondly, the devastation and destruction that was caused by wars which had reflected on environment and social development. This research addresses the legal protection for the environment to prevent the damage that occurs from air pollution. In addition, this study will analyse the relationship between the law and the environment, the problems and issues facing Iraq and the United Kingdom environment. It will also examine the reasons for air pollution in both countries.

The main aim of this study is to discuss the Iraqi and British legislation, and to determine the extent to which Iraq requires special legislation to provide legal prevention and control of environmental pollution. This legislation should include preventive and remedial rules as well as the imposition of criminal, civil and administrative sanctions on offenders on the environment. In order to overcome this problem, the researcher will adopt the analytical and comparison approaches. Analysis for the law texts that dealt with this area will be adopted. Later the researcher will start to compare the collected data from both countries.

This research is expected to develop a theoretical framework which summarizes the information that will be interpreted by this research and, which consequently will contribute to the literature in various fields of knowledge, especially the field of ecology. It will also benefit the environmental protection departments in order to solve problems of the environment in Iraq and to reduce the negative effects on the sectors of social development from one side, and the people's quality of life from the other side. Finally, from the legal viewpoint it will allow to improve the overall environmental situation with special attention to air.

Keywords

Environment, pollution, protection, legislation, air pollution

Destination branding: an analytical study applied to Sultanate Oman as a tourism destination

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Abstract

The economy of the Sultanate of Oman mainly depends on its oil resources. Oman seeks to diversify its national income sources, and the authorities are paying more attention to tourism the aim of this study is to develop and improve the brand of Oman as a tourism destination. This would be obtained by examining the Omani and characteristics from the perspective of potential tourists, and the Omani tourism providers.

Destination branding assists in defining places and creating entities with strong values. A brand is a vital tool that can develop the appeal of tourist destinations and the brand can yield positive effects on the country's economy. A destination brand plays an important role in determining how people around the world identify and perceive a country. Successful destination branding helps to establish a relationship between destination branding and tourists by exploring different basic emotional needs that lead to linking the destination image with the consumer destination image.

This study will analyse the brand destination components for the Sultanate of Oman. A mixed-method approach (quantitative and qualitative) will be used to collect data from stakeholders. The images of Oman perceived by international tourists will be measured with a structure questionnaire Semi structured interviews will be conducted to collect data from key stakeholders involved in the Omani tourism management e.g. government officials, hotel managers. NVivo software will be used to aid the management of qualitative data and SPSS will be used for in the analysis of quantitative data.

Keywords

Destination brand, demand factors, image destination, tourist perception, supply factors

Exploring the relation between students' satisfaction and staff satisfaction:

Salford Business School case study

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Abstract

One of the major challenges in universities is to attract students and qualified academic staff (Paswan and Ganesh, 2009; Bernard, 2012). Due to the high competition, qualified academic staff can move to better organizations and this means that some universities will suffer from the lack of qualified staff and consequently they will lose larger part of their competitive advantage.

The relation between staff satisfaction (employees) on student satisfaction (customers) was examined in a number of studies (Jeon and Choi, 2012; Snipes et al. 2005). One of the studies in this area explored the relation between customers' satisfaction and employees' satisfaction and suggested that customers' satisfaction has positive impact on the employees' satisfaction (Frey et al., 2013). The aim of this research is to explore the relation between students' satisfaction (customers) and academic staff satisfaction (employees) and how it can be applied in the higher education service sector. Salford Business School (SBS) is used as an exploratory case study.

Through an interpretive approach, circa 50 in-depth interviews will be conducted in order to collect the data and get detailed information from academic staff and students taught by those staff. NVivo software will be used in the analysis of the qualitative data and the critical incidents that will be collected from interviews.

This study aims to contribute to knowledge through investigating this using Herzberg theory (Herzberg, 1989) and Balance theory (Heider, 1946) in different sittings.

The practical contribution of this work will help universities to identify the quality dimensions that affects students and academic staff satisfaction, which consequently can help universities to attract more students and qualified staff.

Keywords

Academic staff satisfaction, students' satisfaction