

RESEARCH STUDENTS' SUMMER CONFERENCE 2022

Programme and Book of Abstracts

**RESEARCH STUDENTS'
SUMMER CONFERENCE
2022**

**KNOWLEDGE
→ ACTION**



Middlesex
University
London

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Welcome to 'Knowledge in Action' RSSC 2022

It is a pleasure to present the Programme and Book of Abstracts for the Research Students' Summer Conference on behalf of the Chairs and RSSC 2022 Organising Committee. The Committee chose this year's theme 'Knowledge in Action' to align with our Middlesex University Strategy 2031. During the preparatory sessions for writing Abstracts, we asked the questions: What does 'knowledge in action' mean for you? and How will your research bring about change and add value to society? The participant responses showed overwhelmingly that impact was an important part of our research community vision.

We would like to express our thanks to all our doctoral students presenting papers and posters this year, the topics are far-ranging and future focused. We once again welcome delegates from our international campuses and our collaborative partner institutions. This annual event is a way to bring us together as a research community, and we have celebrated that on our websites throughout RSSC 2022.

Thanks to our speakers, Chancellor Dame Janet Ritterman, Vice Chancellor Professor Nic Beech, Deputy Vice Chancellor Professor Carole-Anne Upton, our Integrating Themes Panel and our alumni speaker Dr Clare Rees. We have a special recognition for services to the RSSC being awarded this year to Professor Hemda Garellick and Professor Richard Comley.

Finally the event could not have happened without our RSSC 2022 Organising Committee and subcommittees, with research students and staff from across the Faculties and Professional Services including the Research Degrees Administration, the Research and Knowledge Transfer Office, CAPE and our Graduate Academic Assistants. We are grateful to our Research Coordinators and Supervisors who acted as reviewers and we would also like to offer our special thanks to Chairs and Judges for this conference.

RSSC 2022 coming at the end of the Covid-19 pandemic is a testament to our resilience and potential as a research community. We hope all the delegates at this year's conference gain from the experience and the time we share together.

Conference Chairs Dr Suman Lodh and Dr Paula McIver Nottingham

The RSSC 2022 Organising Committee



Dr Suman Lodh



Dr Paula McIver Nottingham

Keynote and Panel Speakers

Chancellor, Dame Janet Ritterman

Dame Janet, our Chancellor, is a prominent academic and musician with a global reputation as a champion of the arts. She acts as a ceremonial figure-head of the University. Dame Janet has an important ambassadorial role in representing the University to external audiences to help build support for our mission.



Vice Chancellor, Professor Nic Beech

Nic is Vice-Chancellor of Middlesex University. He has held a range of senior higher education leadership roles including Vice-Principal of the University of St Andrews and Provost of the University of Dundee. He is President of the British Academy of Management, a member of the Council of the Academy of Social Sciences and a board member of London Higher and the Chartered Management Institute Race Network.

Panel Discussion and Integrating Themes

Introduced by Professor Stephen Syrett

At the centre of the new University strategy are three Integrating Themes, which have been identified as areas of focus for our global community of academics, professional services, students and alumni. Middlesex University is passionate and committed to making a significant impact and contribution to global challenges within these themes.

Equity and improvements in health and wellbeing Taking action to make healthcare better for those who need it, we aim to reduce inequalities in people's care. Beyond healthcare, we are improving physical, mental and social health and wellbeing in all parts of society.

Inclusive socio-economic development and enriching lives through culture With a belief that entrepreneurship can be key for a fair and inclusive future, we foster skills for economic participation and success to build a more equal, caring and prosperous society. We use culture and creativity to enrich the lives of individuals and communities and we contribute to organisations of all types through impactful research and knowledge exchange.

Sustainability of communities and the environment Locally, nationally, and around the world, we support people to make their communities more sustainable and fairer and to protect the environment. Globally, our expertise influences economic, social and environmental policy and practice, enabling us to create change within communities.

This panel discussion will consider these themes in greater depth, considering how they are being actively developed within university and their importance to our research student community.



Middlesex University Integrating Theme Leaders Panel

Dr Lisa Marzano, FHEA, Associate Professor of Psychology, Theme Director for Equity and improvements in health and wellbeing

Dr Lisa Marzano has been Associate Professor of Psychology at Middlesex University since 2016, specialising in mental health and suicide research. She re-joined Middlesex in 2012, having previously studied with us. Lisa co-Chaired the Psychology Department Research Ethics Committee and is Faculty Lead for Student Wellbeing and Inclusivity.

Before joining Middlesex, Lisa was a Postdoctoral Researcher at the Centre for Suicide Research and a Research Associate at Green Templeton College, the University of Oxford. She has also been a Guest Psychology lecturer at the Universities of Oxford and Brighton, and is Digital Mental Health editor of *Evidence-Based Mental Health*. Using innovative approaches, her work has had a direct impact on policy and practice, and resulted in a number of publications, research grants and knowledge exchange activities.. In 2019 Lisa was recognised by Universities UK as a “Nation’s Lifesaver” for “saving lives and making a life-changing difference to our health and wellbeing”, and received a “Lifesaver Award” from Transport for London



Professor Kurt Barling, PhD SFHEA, Professor of Journalism, Theme Director for Inclusive socio-economic development and enriching lives through culture

Professor Kurt Barling has been Professor of Journalism at Middlesex University since 2012. His journalism curriculum brings in his working life as a journalist and academic, focusing on practice and theory to prepare students for the rigours of a life in the communications industries. Kurt is a Professorial Member of the Academic Board, Chair of the University Steering Group on Race Equity and Editor-in-Chief of our Race Equality Charter Application.

Previously, Kurt worked across BBC News and Current Affairs from 1989 as a multi award-winning investigative journalist and film-maker for 25 years. His filmography and journalism include Assignment, Newsnight, The Money Programme, Today, Black Britain and BBC News. He was *Special Correspondent* in London from 2001-2015. Kurt is author and editor of four books including *The R Word: Racism* (2015) as well as multiple academic publications.

Note: Kurt has contributed to the discussions for the panel prior to the Conference.

Dr Johan Siebers, SFHEA, Associate Professor of Philosophy and Religion, Theme Director for Sustainability of communities and the environment

Dr Johan Siebers is Associate Professor of Philosophy and Religion. He Joined Middlesex University in 2013, and is an Academic Board Member. In his teaching and research he explores the meaning that communication has in our lives, and uses this understanding to create sustainable communication environments.

Johan has been an honorary visiting fellow and Associate Fellow and Research Centre Director at the Institute of Modern Languages Research, School of Advanced Study, University of London since 2005. He has worked in interdisciplinary contexts throughout his career, including seven years in global business working for Royal Dutch Shell around the world, in communication, external affairs, scenario planning and organisational development roles. His main current research project will investigate and shape the role of young people in reimagining treescapes in Britain, exploring new ways of shaping the relation between culture and nature. Johan is founding editor of *Empedocles: European Journal for Philosophy of Communication* and series editor of *Routledge Research in Anticipation and Futures*. His most recent publication is the edited volume *Working with Time in Qualitative Research* (2021).



*Acknowledgements for announcement text by Professor Sean Wellington
Deputy Vice-Chancellor, Provost*

Alumni Speaker Dr Clare Rees

Title: 'Some reflections before, betwixt and beyond research'



Clare Rees is currently the executive head teacher at Havelock Primary School, Nursery and ARP in Southall, Middlesex and the Principal Quality Partnership Lead for 64 Primary schools for the Ealing Learning Partnership. She became a Founding Fellow of the Chartered College of Teachers in 2018 and has written for the College's Impact publication. In 2020 Clare gained a Doctorate in Education. The title of her thesis was: 'An exploration into the potential of creating a coaching culture in a primary school' She is currently writing a paper with her academic supervisors summarising the findings of her research. Clare is also involved in a ResearchEd pilot exploring alternative models of accountability, where she is looking at a model of formative peer support as part of a model of school improvement.

Deputy VC Award Announcements and Closing

Professor Carole-Anne Upton Deputy Vice-Chancellor Research Knowledge Exchange & Engagement at Middlesex University. She joined the University in 2012 as Dean and Professor of Theatre. Prior to joining the University she held the Chair in Drama at the University of Ulster and was previously a lecturer in Drama and Deputy Dean of the Faculty of Arts and Social Sciences at the University of Hull. Carole-Anne has twenty years' teaching experience spanning: Directing; Space and performance; Liveness and documentation; Modern Irish theatre; French Classical Theatre; Beckett; Avant-Garde Performance; African and Caribbean theatre.



RSSC 2022 Programme Schedule and Joining Instructions



The Research Students Summer Conference 2022

The joining links are given below. If you have any

problem in joining, please contact immediately:

Luca D'Angelo (L.Danqelo@mdx.ac.uk) or Suman

Lodh (s.lodh@mdx.ac.uk)

Welcome to the RSSC 2022.

For presenters: The schedule for the session is available here:

<https://summerconferencemdx.wordpress.com/programme/>.

Please carefully note your particular session for presentation.

We encourage you to have a look at the instructions before joining the online conference on the 22nd and 23rd June 2022.

Each room on the Programme Agenda on the next page has a hyperlink of the zoom joining link. Use control key + click (windows) or click (Mac) on the link. This will allow you to open the zoom room.

Please join your relevant room at least 5 minutes before the start of the session.

For attendees: You can attend any session of your choice. Read the details of the programme here: <https://summerconferencemdx.wordpress.com/programme/>.

Etiquette for online/ virtual conference

1. For security reason, [please do not share these zoom links](#) to anyone other than your research supervisors and colleagues. *Links removed in final public version.*
2. Join your presentation session at least 5 minutes in advance. Check the schedule carefully.
3. Dress professionally.
4. Be aware of your background and present yourself as a professional colleague.
5. Present good quality slides to engage the attendees of your session.
6. Mute your microphone if you are not speaking.
7. Do not eat during the session.
8. Protect sensitive information from your desktop when sharing your screen for presentation.
9. See the instruction to join the networking event using [WonderMe](#) at the end of this document.

Programme Agenda Day 1 Online Wednesday 22 June 2022

PROGRAMME OVERVIEW Day 1 Online Wednesday 22 nd June 2022					
09:15- 9:30	Welcome Dr Suman Lodh and Dr Paula Nottingham, RSSC 2022 Co-Chairs				
9:30- 10:00	Speaker Professor Nic Beech, Vice Chancellor, Middlesex University				
10:00- 10:15	Break				
10:15- 11:35	Parallel Presentations w/slides Session A (Zoom)				
	A1	A2	A3	A4	A5
11:35- 11:40	Break				
11:40- 13:00	Parallel Presentations w/slides Session B (Zoom)				
	B1	B2	B3	B4	B5
13:00- 14:00	Poster Presentations				
13:00- 14:00	Lunch and Networking Wonder.me				
14:00- 15:00	Knowledge in Action Theme Panel Dr Lisa Marzano and Dr Johan Siebers (Research Theme Directors)- hosted by Prof Stephen Syrett, Deputy Dean, Research and Knowledge Exchange				
15:00- 15:10	Break				
15:10- 16:30	Parallel Presentations w/slides Session C (Zoom)				
	C1	C2	C3		
16:30 – 17:30	Social Event (Safari browser doesn't support. Use Chrome or Firefox) Wonder.me				

Programme Agenda Day 2 Online Thursday 23 June 2022

PROGRAMME OVERVIEW Day 2 Online Thursday 23 rd June 2022					
09:15-9:30	Welcome Dr Suman Lodh and Dr Paula Nottingham, RSSC 2022 Co-Chairs				
9:30-10:00	Speaker Dame Janet Ritterman, Chancellor, Middlesex University				
10:00-10:15	Break				
10:15-11:35	Parallel Presentations w/slides Session A				
	A1	A2	A3		
11:35-11:45	Break				
11:45-13:05	Parallel Presentations w/slides Session B				
	B1	B2	B3	B4	B5
13:05-14:15	Lunch Break For Networking Wonder.me				
13:05-14:15	Poster Presentations				
14:15-15:00	Speaker Dr Clare Rees, Executive Headteacher, Havelock Primary School				
15:00-16:00	Break				
16:00-17:00	Special Thanks and Prizes Professor Carole-Anne Upton, DVC, Research, Knowledge Exchange, and Engagement				
17:00-18.00	Virtual Reception and Networking Wonder.me				

Day 1 22.6.22 Paper Oral Presentations

Day 1 Papers A1 10:15 – 11:35

Chair: Michael Traynor

Judge: Gordon Weller

1. Paper A1 10:15 - 10:35

Author/s: Michael O'Driscoll

Title: The Health and Social Care Act 2012 and the Health and Care Act 2022: New Public Management to New Public Governance and privatisation?

Department: Nursing and Midwifery

2. Paper A1 10:35 - 10:55

Author/s: Rahaman Mohammed

Title: Becoming a Social Worker: Learning Social Work Practice in the Placement Environment.

Department: Social Work and Mental Health

3. Paper A1 10:55 - 11:15

Author/s: Adetunji Ademola

Title: Interoperability of Electronic Health Records: Addressing Challenges

Department: Computer Science

4. Paper A1 11:15 - 11:35

Author/s: Malti Varshney

Title: Seeing the unseen: a network practitioner's perspective on the fusion of networking and governance for a pragmatic response to a public health emergency

Department: MProf/DProf TD

Day 1 Papers A2 10:15 – 11:35

Chair: Nicky Payne

Judge: Anthony Mangiacotti

1. Paper A2 10:15 - 10:35

Author/s: Gabriel Ngalomba

Title: Lived Experiences of the Sub-Saharan African migrant women in the United Kingdom who experience perinatal mental illness.

Department: Social Work and Mental Health

2. Paper A2 10:35 - 10:55

Author/s: Penny Brown

Title: Exploring the Experience of Psychotherapists Offering Dance Movement Therapy Online: An Embodied Artistic Inquiry

Department: Psychology

3. Paper A2 10:55 - 11:15

Author/s: Lisa Champion

Title: Exploring how psychotherapists experience their self appearing in their therapeutic work

Department: Psychology

4. Paper A2 11:15 - 11:35

Author/s: Tanaka Mapfumo

Title: What are nursing staff perceptions towards restrictive practices in Men's Medium Secure Wards?

Department: HSCE MProf/DProf

Day 1 Papers A3 10:15 – 11:35**Chair:** Xiaohong Gao**Judge:** Alejandra Gonzalez Baez**1. Paper A3 10:15 – 10:35****Author/s:** Almaas Ali**Title:** Metrics to measure level of collaboration in a co-located educational environment**Department:** Computer Science**2. Paper A3 10:35 – 10:55****Author/s:** Syeda Bushra Ali Rizvi, Anne Elliott, Tim Evans and Rhonda Cohen**Title:** Development of a National Physical Activity Strategy for the multi-ethnic population of the United Arab Emirates (UAE) to counteract the prevalence of chronic diseases – a mixed methods study**Department:** Sports Science**3. Paper A3 10:55 – 11:15****Author/s:** Aarti Bhandari**Title:** The Impact of Psychological Factors on Consumer Buying Behaviour Towards Animal-Cruelty Based Products**Department:** Marketing**4. Paper A3 11:15 – 11:35****Author/s:** Aditya Santokhee, Juan Carlos Augusto and Lindsey Brodie**Title:** Engineering Higher Quality Intelligent Environments: A Multi Case Study Approach**Department:** Computer Science**Day 1 Papers A4 10:15 – 11:35****Chair:** Nico Pizzolato**Judge:** Rand Raheem**1. Paper A4 10:15 – 10:35****Author/s:** Saeed Oluwadipe**Title:** Investigating Household Recycling Barriers in Westminster City**Department:** Natural Science**2. Paper A4 10:35 – 10:55****Author/s:** Mohammed Ibrahim Khan**Title:** Environmental Performance and Corporate Lobbying**Department:** Accounting and Finance**3. Paper A4 10:55 - 11:15****Author/s:** Shabih Fatima, Juan Carlos Augusto and Ralph Moseley**Title:** Gamification For Healthier Lifestyles-User Retention**Department:** Computer Science**4. Paper A4 11:15 – 11:35****Author/s:** Nawa Sakanga, Juan Carlos Augusto and Lindsey Brodie**Title:** Quality Traceability for User-Centric Context-aware Systems in Intelligent Environments**Department:** Computer Science

Day 1 Papers A5 10:15 – 11:35**Chair:** Liang Liu**Judge:** Aaron Lawson**1. Paper A5 10:15 – 10:35**

Author/s: Ahmed Eissa, Xiaohong Gao and Xiaochun Cheng
Title: Annotating Online Or Offline Video Footage Using Text Applying Deep Learning Techniques
Department: Computer Science

2. Paper A5 10:35 – 10:55

Author/s: Farida Eid
Title: Therapists' Experiences of Helplessness
Department: Psychology

3. Paper A5 10:55 – 11:15

Author/s: Belinda Donn
Title: A structural existential analysis of the experience of employees who have received workplace counselling: An exploration through the four worlds of existence.
Department: Psychology

4. Paper A5 11:15 – 11:35

Author/s: Cariona Flaherty
Title: Critical Thinking in Nurse Education: Exploring critical thinking from the nurse lecturers' perspective
Department: MProf/DProf TD

Day 1 Papers B1 11:40 – 13:00**Chair:** Paula Nottingham**Judge:** Gabriel Sutton**1. Paper B1 11:40 – 12:00**

Author/s: Anneke Prins, Diane Purchase and Dirk Wildeboer
Title: An investigation of the effect of mutations in lipopolysaccharide (LPS) of Salmonella Typhimurium on the colonization of microgreens
Department: Natural Science

2. Paper B1 12:00 – 12:20

Author/s: Meghan Luton, Helen Allan and Herminder Kaur
Title: Deaf women's experiences of maternity and primary care: an integrative review
Department: Nursing and Midwifery

3. Paper B1 12:20 – 12:40

Author/s: Nancy Veerayen
Title: Evaluating Student Satisfaction in a Higher Education Institution using Appreciative Inquiry
Department: Education

4. Paper B1 12:40 – 13:00

Author/s: Michael Davies, Nimai Parmar and Nic James
Title: The Influence of Event Data on Physical Output: A Case Study of an English Premier League Football Club
Department: Sports Science (recorded)

Day 1 Papers B2 11:40 – 13:00**Chair:** Giulia Pecorella**Judge:** Meri Juntti**1. Paper B2 11:40 – 12:00****Author/s:** Bisi (Matthew) Adewole**Title:** Assessing the international Criminal Court's complementarity in relation to Situation in Georgia**Department:** Law**2. Paper B2 12:00 – 12:20****Author/s:** Najat El Mahdy**Title:** Exploring Human Resource Management Practise through the Qatar HR Forum; framing the influence of 'Tharaba' culture and the development of Qatar-Centric competencies for HR Professionals practising in Qatar**Department:** MProf/DProf TD**3. Paper B2 12:20 – 12:40****Author/s:** Stephen Owusu Addo**Title:** Determination of refugees status and protection by states in the context of climate-changed induced displacements.**Department:** Law**4. Paper B2 12:40 – 13:00****Author/s:** Mahensingh Deonaran**Title:** Legal Professionals' and Lay Views on the Credibility of Expert Forensic Witnesses**Department:** Psychology**Day 1 Papers B3 11:40 – 13:00****Chair:** Anthony Mangiacotti**Judge:** James Kenworth**1. Paper B3 11:40 – 12:00****Author/s:** Dominique Rivoal**Title:** The development of a somatic Relational Filmmaking Practice**Department:** Media and Performing Arts**2. Paper B3 12:00 – 12:20****Author/s:** Godfred Asamoah**Title:** Supporting People Diagnosed With Schizophrenia Living In The Community And Their Families: The Ghanaian Experience**Department:** HSCE MProf/DProf**3. Paper B3 12:20 – 12:40****Author/s:** Lukman Sharif**Title:** An Alternative Approach to Information Security Awareness Training to Reduce Human Errors**Department:** MProf/DProf TD**4. Paper B3 12:40 – 13:00****Author/s:** Steven Wells**Title:** My Work Here is Done?**Department:** Psychology

Day 1 Papers B4 11:40 – 13:00**Chair:** Leandro Sepulveda**Judge:** Simon McCarthy**1. Paper B4 11:40 – 12:00****Author/s:** Temi Oyelere**Title:** Accounting and Accountability in the Nigerian Non-governmental organisations (NGOs)**Department:** Accounting and Finance**2. Paper B4 12:00 – 12:20****Author/s:** Perihan Mostafa Abdelghaly**Title:** Examining SMEs Responses to Public officials' Petty Corruption in Egypt**Department:** CEDDR**3. Paper B4 12:20 – 12:40****Author/s:** Qiong Yuan**Title:** The moderating effect of ownership structure on the relationships between AI technology adoption and firm performance: a longitudinal analysis (Panel Data)**Department:** Marketing**4. Paper B4 12:40 – 13:00****Author/s:** Andrew Peters, Nic James and Nimai Paramr**Title:** Expected Turnovers (xTurnovers) - A Statistical Model to Analyse Turnover Events in Football (Video screening with commentary)**Department:** Sports Science (recorded)**Day 1 Papers B5 11:40 – 13:00****Chair:** Anne Elliott**Judge:** Tendai Gwenhure**1. Paper B5 11:40 – 12:00****Author/s:** Shannah Anico, Lizi Smith, Laura Wilson and Emma Eyre**Title:** Does the Mayor of Barnet's Golden kilometre influence physical literacy levels in primary school children?**Department:** Sports Science**2. Paper B5 12:00 – 12:20****Author/s:** Denisha Seedoyal-Seereekissoon**Title:** An experimental investigation of the impact of positive versus negative advertising message framing, moderated by gender, on charity donation: a study in the context of anti-domestic violence campaign in Mauritius**Department:** Marketing**3. Paper B5 12:20 – 12:40****Author/s:** Mahnoor Yaqoob, Ramona Trestian and Huan Nguyen**Title:** Network Performance Prediction for B5G Networks with Graph Neural Network**Department:** Design, Engineering and Mathematics**4. Paper B5 12:40 – 13:00****Author/s:** Praveer Towakel, Huan Nguyen and David Windridge**Title:** An examination of multi-modal fusion for an FMCW radar and RGB-data**Department:** Design, Engineering and Mathematics

Day 1 Papers C1 15:10 – 16:30**Chair:** Nico Pizzolato**Judge:** Angela Scollan**1. Paper C1 15:10 – 15:30****Author/s:** Kate March**Title:** Feel Her Pain Project: Emerging Research Insights (Video screening with commentary)**Department:** Media and Performing Arts**2. Paper C1 15:30 – 15:50****Author/s:** Sindu Prasad**Title:** Graduate Employability : A Multiple Stakeholder Investigation in the UAE**Department:** Education**3. Paper C1 15:50 - 16:10****Author/s:** Chitisha Gunnoo**Title:** Reviewing Assessment in the Information Age in Post Covid Mauritius**Department:** Education**4. Paper C1 16:10 - 16:30****Author/s:** James Phillips**Title:** Jesus in Islam - In What Ways are Contemporary Muslim Authors Writing to the American Public Representing Change in Relation to Classical Muslim Understandings?**Department:** Law**Day1 Papers C2 15:10 – 16:30****Chair:** Christophe Viavattene**Judge:** Giulia Pecorella**1. Paper C2 15:10 – 15:30****Author/s:** Maxine Stephenson**Title:** A CRT- informed exploration of current mentoring practices within education of Black Caribbean Males (BCMs)**Department:** Education**2. Paper C2 15:30 – 15:50****Author/s:** Ewa Dalek-Trudnowska**Title:** Corporate Social Responsibility Tax as a response to progressing job automation**Department:** Law**3. Paper C2 15:50 - 16:10****Author/s:** Diana Francis and Ignatius Ekanem**Title:** Microfinance and Financial Inclusion: Role of Microfinance in Development of SMEs in Tanzania.**Department:** MLO - Management Leadership and Organisation**4. Paper C2 16:10 - 16:30****Author/s:** Mai Mahmoud, Georgios Dafoulas and Noha Saleeb**Title:** Factors Affecting the Deployment of Learning Analytics in Developing Countries: Case of Egypt**Department:** Computer Science

Day 1 Papers C3 15:10 – 16:30

Chair: Paula Nottingham

Judge: Neha Nathaniel

1. Paper C3 15:10 – 15:30

Author/s: Sailendra Ramanna, David Windridge and Santosh Tirunagari

Title: Detection of Alzheimer's EEG Signals using Constrained Singular Spectrum Analysis and 1D-Local Binary Patterns

Department: Computer Science

2. Paper C3 15:30 – 15:50

Author/s: Chelsea Bland, Xuesong Wen and Britta Stordal

Title: Investigating the effects of EZH2 inhibitors on targeting epigenetic changes in head and neck squamous cell carcinoma

Department: Natural Science

3. Paper C3 15:50- 16:10

Author/s: Di Di Cui and Xiaohong Gao

Title: Early detection of oesophageal cancer through colour appearance models

Department: Computer Science

4. Paper C3 16:10- 16:30

Author/s: Chris Cleave

Title: How do people heal their minds in everyday life?

Department: Psychology
Social Work and Mental Health

Day 1 22.6.22 Poster Presentations

13:00 – 14:00 Zoom

Chair/Organiser Gordon Weller

Judges: Leena Robertson, Huw Jones, Dandan Han, Vida Midgelow, Elda Nikolou-Walker

Day 1 Poster Presentations 13:00 – 14:00 Zoom		
1	Dora Vidalina, Song Wen, Lucy Ghali and Nick Kassouf	The effectiveness of EZH2 inhibitors in treating Human papillomavirus associated cancers and associated pathways Department: Natural Science
2	Alexander Korotkov	Design of virtual reality to prepare people with special needs for common life situations Department: Computer Science
3	Fasila Pallinalakam, Hemda Garelick and Dirk Wildeboer	Developing a professional platform in support of Medical Technologists in the United Arab Emirates and creating a Toolbox for Educators Department: HSCE MProf/DProf
4	Maria Chifa, Gemma Reynolds and Fabia Franco	The impact of home musical activities on language development in infants born prematurely Department: Psychology
5	Herbert Mwebe	A qualitative discussion with Mental Health Nurses (MHNs) exploring views of their role and experience of undertaking cardiometabolic risk monitoring in inpatient mental health settings Department: HSCE MProf/DProf
6	Megan Karnes	Equity and improvements in health and wellbeing: Impact of environmental health interventions on wellbeing of people with hoarding behaviour (PwHB). Department: HSCE MProf/DProf
7	Geili Elsanousi, Tuan Le, Huan Nguyen and Xin-She Yang	The Road Map to Smartwave Using Digital Twin Department: Design, Engineering and Mathematics
8	Luke Hands	Leading and managing change in the mental health of the construction industry. Department: HSCE MProf/DProf
9	Aaisha Al Shehhi, Penny Duquenoy and Gordon Weller	Development of user orientation toward digital culture within a national government strategy; a case study of UAE e-government Department: HSCE MProf/DProf
10	Andrew Sumaní	Towards a theological pedagogy of hospitality in Malawi Department: Law
11	Irena Ceko Marko, Kate Maguire, Elda Nikolou-Walker, Carmel Clancy and Betsy Thom	An Autoethnographic Exploration of Addiction in Albania: a country in transition recorded Department: MProf/Dprof TD
12	Obinna Iwuchukwu	Rethinking Construction Waste Management Practices: A Case for Integrating Sustainable Environmental Management and Circular Economy Model Department: HSCE MProf/DProf
13	Stephen Egahi-Ojo Agada	Ushering the Virtual Age: Understanding the factors which influence the adoption of Virtual Reality Shopping Applications Among Generation Y and Generation Z. Department: Computer Science

Day 1 22.6.22 Abstracts for Papers

Day 1 Papers A1 10:15 – 10:35

1. Paper A1 10:15 – 11:35

Author/s: Michael O'Driscoll

Title: The Health and Social Care Act 2012 and the Health and Care Act 2022: New Public Management to New Public Governance and privatisation?

Department: Nursing and Midwifery

The National Health Service (NHS) of the United Kingdom enjoys extremely high levels of public support and despite widespread opposition to private sector involvement this continues to grow, as a prominent aspect of new public management (NPM). In 2010 a right/centre right coalition government introduced plans for the greatest ever top down reform of the NHS, which became the Health and Social Care Act 2012. A decade later, the Health and Care Act 2022 has been passed into law. This model of the NHS which this legislation supports explicitly rejects some key aspects of NPM such as competition between private providers, stating aims such as co-operation, collaboration and integration.

Through a combination of literature review and policy analysis, This paper addresses two research questions. Firstly whether the change between these two pieces of legislation is consistent with a move from new public management to new public governance archetypes and secondly, why this matters for the NHS's performance and future direction, particularly in terms of privatisation and the aftermath of the pandemic.

2. Paper A1 10:35 - 10:55

Author/s: Rahaman
Mohammed

Title: Becoming a Social Worker: Learning Social Work Practice in the Placement Environment.

Department: Social Work and Mental Health

Introduction: This study explores the discourse that Social Work graduates from traditional university qualifying programmes are ill prepared for the world of frontline practice. The discourse on contemporary Social Work education have a narrow instrumental focus on statutory tasks in contrast to broad Social Work (Singh and Cowden 2009: 481; Higgins 2015: 11), professional autonomy and expertise. Indeed, a recent report (Scourfield et al 2021) on the fully funded national programmes introduced from 2010 to address this shortcoming revealed that those graduates experienced incongruence between their training and the realities of Social Work practice resulting in attrition from the profession.

Aims: Placement learning as a concept is often referred to by more comprehensive terms such as work based learning or work integrated learning (Billet 2009). The study aims to identify the understanding of employers and academics on what constitutes 'preparedness for practice' and seeks to identify the characteristics of a practice placement that equips the student with the required knowledge, skills, competence and confidence and to determine the extent of congruence between the HEI's judgement and the students accounts of the placement that leads to preparedness to practice.

Research methods: A qualitative methodology is adopted, with a multiple methods approach. This four-year longitudinal study utilises phronesis combined with thematic and narrative analysis for interpreting the data collected. Data will be collected from participants including stakeholders involved in Social Work education and a convenience sample from an undergraduate cohort undertaking a qualifying Social Work programme. The perceptual data of stakeholders was collected through semi structured interviews so setting a baseline

of expectations in a real-world context. Data is being collected using narrative interviews at four key points in the student's programme journey.

Initial Findings and Contribution: These findings may contribute to a better understanding of the process of becoming a Social Worker that is prepared for practice; to assuring the quality of practice placements with added value to employer stakeholders to meet workforce needs. It will likely inform the future design of qualifying Social Work programmes and the academic support offered to students being prepared for practice to meet employer requirements.

3. Paper A1 10:55 - 11:15
Author/s: Adetunji Ademola

Title: Interoperability of Electronic Health Records:
Addressing Challenges
Department: Computer Science

Electronic health records (EHR) have become integral in the delivery of modern healthcare in many developed and developing countries. The importance of EHR systems cannot be underestimated considering the benefits that they offer to the healthcare delivery process. These benefits include fast patient records access, improved preventive care, enhanced patient-physician communication and improved health care delivery. Hospitals that adopt EHRs also benefit from having centralized records and are able to comprehensively care for patients. More sophisticated EHRs also offer other conveniences and improvement in certain job functionalities in the hospital setting. The deployment of disparate EHR systems in various hospitals has resulted in the lack of interoperability of such systems.

Interoperability of EHR systems involves the electronic sharing of patient information between different systems and healthcare providers. Interoperability has various dimensions including legal, organizational, semantic and technical interoperability, however, this paper focuses on technical interoperability. Issues such as differences in application codes and the lack of common standards across disparate systems, have hindered the goal of achieving technical EHR interoperability in many countries. This paper discusses challenges to achieving interoperability of EHR systems and proposes a solution to achieving technical interoperability by developing a centralized platform that would enable disparate EHR systems to be able to communicate and exchange patient information. The proposed platform will allow data sharing and centralized storage and address both privacy and security concerns of interoperability. It also will be web-based, have an authentication process based on blockchain and incorporate intrusion prevention and detection systems as well as modern cyber security standards to protect patient data

4. Paper A1 11:15 - 11:35
Author/s: Malti Varshney

Title: Seeing the unseen: a network practitioner's perspective on the fusion of networking and governance for a pragmatic response to a public health emergency
Department: MProf/DProf TD

There is a large body of evidence on the effectiveness of professional networks to provide a neutral platform for addressing the complex problems and their governance in disaster management emergencies such as hurricanes and flooding. Despite the availability of a body of literature describing a mode of governance of the networks for disaster management, little attention has been paid to understanding the decision-making processes during an enduring infectious disease emergency as posed by the pandemic.

In general, decisions tend to be based on the data, logic and heuristics and the choice of the process is usually determined by the context. The pandemic of Covid 19 introduced a great deal of uncertainty in an already complex National Health System, requiring urgent action from policy developers. The level of emergency response needed during the

pandemic has warranted an enhanced level of joint decision making across multiple agencies.

This is a contextual study providing an account of intentionally understanding the dynamic governance process of decision-making of a network of senior actors in a complex environment. It seeks to add to the body of available knowledge on the role of networks in responding to a rising tide emergency. The guiding methodology for the study is Action Research through critical self-reflection of past and present actions (first person), using the principles of a collaborative approach (second person).

The early findings suggest that decision making in complex environments is an intricate activity. Effective governance for decision making through a network requires a dynamic interplay between the following five components :

1. Learning Attitude: creates a culture of curiosity and experiential learning to continuously improve practice
2. Alignment with strategic objectives of the rapidly evolving context for agile decision making
3. Hierarchical Leadership: plays a crucial role in creating conditions to share the decision-making power through distributed leadership
4. Coordination of the network: it is essential to provide an ongoing neutral platform for debating difficult and complex issues
5. Agency of network members: activation of their agency to make decisions

These findings will be shared with stakeholders (third person) to improve decision-making during an emergency.

Day 1 Papers A2 10:15 – 10:35

1. Paper A2 10:15 - 10:35

Author/s: Gabriel Ngalomba

Title: Lived Experiences of the Sub-Saharan African migrant women in the United Kingdom who experience perinatal mental illness.

Department: Social Work and Mental Health

Lived Experiences of the Sub-Saharan African migrant women in the United Kingdom who experience perinatal mental illness.

Author: Gabriel Ngalomba Supervisors: Professor Helen Allan & Dr Venetia Brown

Introduction: Awareness about perinatal mental illness and its available services have increased, but this has not been the case in the Sub-Saharan African migrant women in the U.K as they remain reluctant to access services voluntarily.

The Problem:

There is evidence of reluctance to accept the existence of the illness and engage with the available services, which means that health and social care professionals use compulsory treatment orders to ensure African migrant women's treatment in mental health services and the safety of their babies as little is known about these women.

Aim To explore the lived experiences of migrant African women who have suffered from perinatal mental illness from pregnancy to post birth and have used the United Kingdom's perinatal mental health services to understand the challenges.

Research methodology: Qualitative approach was used to gather Sub-Saharan African migrant women's lived experiences after using these services. I used purposive sampling and unstructured interview methods to collect data of 11 research participants. Pseudonyms were used to ensure confidentiality and for readers to follow narratives. I used Giorgi

phenomenological analysis method to analyse the recorded interviews. Descriptive phenomenology was used as my theoretical framework.

Findings:

I elicited five overarching themes of lived experiences related to:

- Perinatal mental illness and services.
- Racism and professionals' lack of urgency
- Physical health and provision of services
- Meaning of being an African woman
- Split off services and thoughts of improvement.

Expected contribution:

• More knowledge and understanding of the barriers to voluntary acceptance of the available services and how to improve services

• The opportunity for the National Health Service to review the current models of care provision to make it culturally sensitive to African women needs, more inclusive, and accessible by these women

Knowledge into Action.

Implement what women have recommended:

More professionals understanding of these women cultural needs

Presence of Sub-Saharan African women as peer support.

2. Paper A2 10:35 - 10:55

Author/s: Penny Brown

Title: Exploring the Experience of Psychotherapists Offering Dance Movement Therapy Online: An Embodied Artistic Inquiry
Department: Psychology

This timely study explores psychotherapists' experience of using dance/movement online with clients through embodied artistic inquiry. Dance Movement Psychotherapy (DMP) is an established psychotherapeutic intervention that engages clients in a creative process using body movement and dance to assist integration of emotional, cognitive, physical and social aspects of self. Eight registered dance movement psychotherapists took part in an experience-based, body-anchored interview online via video-conferencing. The interviews were transcribed and analysed using aesthetic analysis, an inductive and iterative process in which the analyst is immersed in data details and dialogues with collected data using Hervey's (2000) aesthetic criteria. The results are revealing that different electronic-devices (i.e., phones, ipads, laptops, desktop computers etc.) are used by therapists and clients in-sessions and movements are used differently with each one. In some cases, the device can become a therapeutic tool to explore movement and be used creatively, and in others simply just a platform facilitating sessions. The results will be disseminated into a research journal and a choreographed dance/movement repertoire using participants movements and demonstrations will be used at conferencing. In addition, anonymised vignettes using words from the interviews will be made in hope to use these as case study examples in future DMP training. Overall, the study recommends further investigation into online-DMP practice and recognises the need for an online-DMP training course that gives guidance for using body-based psychotherapeutic interventions and converting face-to-face practices.

3. Paper A2 10:55 - 11:15

Author/s: Lisa Champion

Title: Exploring how psychotherapists experience their self appearing in their therapeutic work
Department: Psychology

This hermeneutic phenomenological study is exploring how humanistic psychotherapists experience their self appearing in their therapeutic work. The primary researcher is a psychotherapist in private practice who is seeking to generate new knowledge about the

phenomenon of the self appearing so that it can be utilised by other practitioners who work in the psychotherapeutic space. It is hoped that this knowledge and understanding will offer a foundation from which other therapists may learn, contemplate and reflect upon their experiences of themselves in their work. This knowledge has the potential to lead to greater skills of self-reflection and an acceptance, normalising and openness to discuss and explore how the self of the therapist influences both the relational and technical aspects of their therapeutic work. In the domain of training, supervision and professional development, the study has the potential to inspire the use of more phenomenologically-oriented, experiential approaches to help therapists understand how aspects of themselves appear in their work. To date, 12 experienced psychotherapists have been interviewed using a microphenomenologically informed approach. The interviews were based on a deep exploration of a single experience of noticing their self appearing in their work. These interviews are currently being analysed using hermeneutic phenomenological methods. A second phase of the project will be to conduct a phenomenologically-informed dialogical group to explore how the emerging findings from the individual interviews may be significant in the supervision space. In this presentation, the researcher will present an overview of the project to date, and then highlight how she has been putting her own growing knowledge of phenomenology into action throughout the project.

4. Paper A2 11:15 - 11:35
Author/s: Tanaka Mapfumo

Title: What are nursing staff perceptions towards restrictive practices in Men's Medium Secure Wards?
Department: HSCE MProf/DProf

Restrictive practices due to complementary of care and security is a prevalent concerns impacting not only the recovery of individuals admitted in Men's Forensic Medium Secure Services but also the wellbeing of the staff members. Many aspects of forensic men's medium secure hospitals involve containment and control of the patients, who are considered a risk to themselves and others. The purpose of this study was to research the perceptions of Mental Health Nurses, with regards to restrictive practices in men's medium secure services. The aim was to situate the frontline nursing staff (RMN), as the primary source of knowledge to gain an understanding of the impact of restrictive practice derived from experience. However, the study excluded all staff members who are directly managed by the researcher, to avoid bias arising from power coercion.

Thirteen semi-structured individual interviews were conducted with individuals who were identified as Registered mental health Nurses (RMNs), don't directly manage within a men medium secure hospital, who have worked for at least six months. Descriptive phenomenological approach was used because not much was known about the registered mental health nurses' perceptions on restrictive practices. Data was analysed using qualitative analysis to gain insight into the seven Men's Medium Secure, wards, which supported thematic analysis. Data from interview transcripts was then linked with the findings, theories, policies and practice.

Day 1 Papers A3 10:15 – 10:35

1. Paper A3 10:15 – 10:35	Title: Metrics to measure level of collaboration in a co-located educational environment Author/s: Almaas Ali Department: Computer Science
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Collaborative learning is an educational approach involving joint intellectual efforts by students, mutually sharing understanding, solutions, meaning or creating a product. Despite the many advantages and increasing incorporation of this approach in higher education, many challenges have arisen. A challenge that originates from the assessment's methods, is identifying individual students' behaviours and contributions in a group to eliminate free-riding behaviours. Free-riding not only can make group work an unpleasant experience for other participants but also creates frustration where the same marks are awarded to all students. It is also important to note that free-riding behaviours are not necessarily due to deliberate, and apathetic attempts to contribute less than other participants but could be the results of numerous underlying behaviours such as lack of understanding of the task, miscommunications, and groups dynamics [1,2]. This research project aims to investigate and evaluate metrics identified to measure the 'level of collaboration', in a co-located collaborative educational task. This focuses on measuring a participant's and a group's communication, coordination, and performance from different physical. These metrics have been used to design thresholds for an algorithm. Currently, experimental studies are in the process of being conducted to test and evaluate the algorithm with participants.

In this presentation, the designed algorithm and system architecture of the new system proposed will be presented along with some results from earlier draft studies where metrics have been tested [3,4]. The aim is to create a change for the better, where students are fairly and transparently assessed, and tutors can use the data to intervene and best support students during co-located collaborative learning tasks.

2. Paper A3 10:35 – 10:55	Title: Development of a National Physical Activity Strategy for the multi-ethnic population of the United Arab Emirates (UAE) to counteract the prevalence of chronic diseases – a mixed methods study Author/s: Syeda Bushra Ali Rizvi, Anne Elliott, Tim Evans and Rhonda Cohen Department: Sports Science
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Lack of exercise is a major cause of non-communicable diseases (NCDs) around the world and its prevalence in the UAE is a growing concern. NCDs account for 77% of all deaths and 17% of premature deaths (30-70 years) in UAE. It is one of the fastest developing nations in the world and is a home to one of the world's highest percentage of expatriates with 200 different nationalities, thus composed of a multi-ethnic population with varying educational backgrounds, religious beliefs, and cultural practices. Designing an effective national physical activity policy for a country with a great deal of ethnic diversity is challenging. The rapid economic development, increased urbanization, and the transition to a sedentary lifestyle has given the rise in the prevalence of chronic diseases, including the world's major NCDs of coronary heart disease (CHD), type 2 diabetes, and breast and colon cancers, thus reducing Quality of Life (QoL). Regular physical activity and exercise are associated with reduced chronic diseases risk.

The first stage of this PhD study is a comprehensive investigation of academic and non-academic literature, to understand the significance of the UAE's recent history in defining levels of health and fitness in the general population together with current provision and health policies for physical activity together with the governments stated intent to make the country the healthiest in the region by 2031.

3. Paper A3 10:55 – 11:15
Author/s: Aarti Bhandari

Title: The Impact of Psychological Factors on Consumer
Buying Behaviour Towards Animal-Cruelty Based Products
Department: Marketing

There have been limited studies of consumers' preferences for animal-cruelty products. The present study explores the effects of an individual's personality traits on a consumer's intention to buy animal-cruelty-based products.

A questionnaire survey managed to collect 314 responses by adopting a convenience and a snowball sampling method for the study to collect data from individuals of the age group of 18 years or more. The data were analysed by using SPSS AMOS software. The results indicated that sadism significantly influences consumers' intention to buy animal-cruelty products. Surprisingly, materialism has no significant influence on purchasing animal-cruelty products; however, the impact of materialism on the purpose of buying was expected. Furthermore, SEM (structural equation model) analysis was conducted to explore the effects of 5-personality traits on the choice to purchase animal-cruelty products, sadism and materialism. The results indicated that openness, extraversion, and neuroticism significantly impact sadism and materialism. On the other side, there is an insignificant relationship between intention to buy animal-cruelty based products. Besides, the agreeableness personality trait has a non-significant effect on sadism, materialism and choice to purchase animal cruelty products. This research contributes to the literature on materialism with surprising results of no relationship between materialism and intention to buy. The study has a theoretical contribution to the literature on everyday sadism in academics and the marketing industry. This study could benefit companies selling animal-friendly products as consumers increasingly shift toward ethicality. Marketers need to develop more ethical plans for the company to conduct market segmentation based on consumers' personalities when trying to increase the consumer base. Finally, policymakers and NGOs can consider the results to make consumer-awareness plans for animal-friendly products and avoid a lack of awareness among the public. Another questionnaire survey will be conducted for the final study by adopting the judgemental sampling method. Knowledge can be put into action through awareness regarding animal-cruelty products in the marketing among the consumers. They take action or steps to stop buying animal-cruelty based products.

4. Paper A3 11:15 – 11:35
Author/s: Aditya Santokhee,
Juan Carlos Augusto and
Lindsey Brodie

Title: Engineering Higher Quality Intelligent Environments: A
Multi Case Study Approach
Department: Computer Science

Engineering quality intelligent environments is inherently challenging since, to date, there is little guidance on the process to manage quality during their development and to evaluate the systems post development. To address these concerns, this paper has three main objectives. First, it presents a methodology to quantitatively define, measure and evaluate the quality requirements for intelligent environments based on their system requirements. Second, a novel quality-in-use model for evaluating these types of systems is proposed. Third, we report on application of a multiple case study which investigates the impact of our proposed methodology and quality-in-use model to projects from two different contexts. The User Centered Intelligent Environment Development Process was enhanced by introducing new quality influenced activities to each of its three core stages. Quality characteristics were derived from the ISO/IEC 25000 family of standards for consistency. We observe that although more time, money and effort are required to apply the methodology, there is a reduction in the amount of regressions and rework post development. In addition, the vision of the project sponsors is translated to measurable quality characteristics which help developers assess suitability of deliverables during development. Finally, stakeholders are involved during the entire process, and this ensures that the delivered systems deliver the best value.

Day 1 Papers A4 10:15 - 11:35

1. Paper A4 10:15 – 10:35

Author/s: Saeed Oluwadipe

Title: Investigating Household Recycling Barriers in

Westminster City

Department: Natural Science

Background and purpose

The Westminster City Council (London, UK) has consistently failed to meet the annual recycling target of 50% of household waste set by the UK government. The recycling rate of the council was stagnant between 19% to 25% over a ten-year period (London DataStore, 2019). The aim of this research was to investigate the issues surrounding the low recycling rate to inform the design and the implementation of an effective waste management policy.

Methods

The research utilised quantitative and qualitative methods (mixed methods) to collect data. Applying a sequential mixed design for the resident data collection process, data were collected initially through interviews, and then a survey where the interviews helped to formulate questions for the survey. The sequential research strategy allows initial exploration works to provide insights about the complexity of the phenomenon under study (Bentahar and Cameron, 2015).

Findings and Contributions

The thematic analysis generated 8 final themes to reveal the factors affecting the council recycling rate; they were: physical factors, communication and public engagement, human factors, socio-economic factors, service constraints, policy constraints, use of incentives and environmental protection.

Despite positive socio-demographic factors and positive human behaviours, most respondents continued to face situational barriers bordering on physical factors and the level of recycling service provided by the council has affected the council recycling rate.

This work offered strategic recommendations for effective and sustainable waste management that can be applied to other urban areas. Thus, the research outcomes can be used to improve waste management practices across the UK and bring benefit to the wider community.

2. Paper A4 10:35 – 10:55

Author/s: Mohammed
Ibrahim Khan

Title: Environmental Performance and Corporate Lobbying

Department: Accounting and Finance

Previous studies have illustrated that better environmental performance reaps benefits for firms; pleasing stakeholders, adaptability to green production practices and enhancing firm reputation. However, the issue arises for firms on the opposite side of the spectrum who are poor environmental performers. Firms with poor environmental performance need to ingratiate authorities in order for their business interests to be met (i.e. to have bills passed in their favour). Firms with poor environmental performance may see lobbying as a solution; firms that find it difficult or costly to conform with environmental bills may find it easier and cheaper to lobby because if a bill pertaining to relaxing environmental regulations is passed through parliament in their favour, a firm is in automatic conformation to the law and thus cannot be penalised for non-conformity. On that account, do poor environmental performers lobby more? This empirical study will aim to research the relationship between poor environmental performers amongst large US firms and their tendency to lobby.

The theoretical framework of this study is supported by the Tollbooth and Public Choice theories. The Tollbooth theory will examine how tight and rigid regulations from authorities can actually backfire and fall due to firms having difficulty in complying with laws and thus in order to remain in control, authorities accept lobbying. The Public Choice theory will further help to understand how politicians and authorities accept lobbying if they see a self-gain.

Firm environmental performance data (measured in the form of carbon emission) was extracted from CDP (Carbon Disclosure Project), and lobbying expenditure data was derived from CRP (Open Secrets). Based on a sample of 280 US firms (amounting to 2802 observations in total) and employing panel data from 2010 to 2020, it was found that poor environmental performers lobby more. Our random effect model also shows that larger firms tend to lobby more as well as those firms that are based in a Democratic state compared to those firms in Republican states.

3. Paper A4 10:55- 11:15

Author/s: Shabih Fatima,
Juan Carlos Augusto and
Ralph Moseley

Title: Gamification For Healthier Lifestyles- User Retention

Department: Computer Science

1. Introduction

Sedentary lifestyles have become commonplace and a worldwide problem. The main reason for this is owing to minimal mobility and exercise, causing an adverse effect on human wellbeing and leading to incurable ailments such as diabetes, obesity and cardiac issues. Motivation and behaviour change is the key factor to improve well-being.

Gamification is important in the field of healthcare. It is designed to enhance user experience and focuses on user retention.

2. Problem Definition

Many applications such as FitBit, Pokemon Go and Runkeeper (**Júnior et al., 2016**) have been developed to overcome obesity but user retention is a challenge. Pokemon Go failed to keep its users engaged for long term (**Rasche et al., 2017**). Therefore, more research is required on the driving factors responsible for motivation. The aim of this research is to encourage people to increase the amount of physical activity using gamification by identifying the key factors responsible for retaining user involvement.

3. Methodology

The research is conducted using primary and secondary data. The recent journal and conference paper from Science Direct, IEEE and other databases are used to get in-depth knowledge of the topic. The process used in this study is U-CIEDP to get better insight and engagement of stakeholders and users using questionnaires, surveys, validation exercises, workshops and competitions. This research is being conducted in collaboration with colleagues from the Department of Sports and Psychology of Middlesex University.

4. Findings and Contribution

The main contribution to this research is an application developed using Unity 3D. This application is developed to attract more people into doing physical activities and to persuade users to stick to the fitness routine. Different strategies are used such as Behaviour Change Techniques (BCTs) and Self-Determination Theory (SDTs). An algorithm is created to measure the effectiveness of BCTs and SDTs. Using this algorithm, we are analysing the results of the three independent pilots conducted in Middlesex University, Unitas and Hendon School. The aim is to correlate highest overall user adherence with the app by a user with the use of specific BCTs and SDTs. This is to identify which technique seemed to make a difference in user adherence.

4. Paper A4 11:15 – 11:35
Author/s: Nawa Sakanga,
Juan Carlos Augusto and
Lindsey Brodie

Title: Quality Traceability for User-Centric Context-aware Systems in Intelligent Environments
Department: Computer Science

1. Introduction

Context-awareness is an important component of modern software systems. For example, in Ambient Assisted Living (AAL), the concept of context-awareness empowers users by reducing their dependence on others. Such systems have not been required to be quality-certified as fit for purpose. This implies a need for system quality to provide usability and be reliable. This research proposes “quality traceability of context-aware systems”, an automated approach with the capability to identify and track the quality of system responses to contexts from the capture of requirements, through to the development, testing and validation phases.

2. Aim

The research aims to develop a quality traceability approach. The proposed approach runs throughout the system development life cycle and links the captured contextual requirements, to testing and testing to validation and validation to requirements.

3. Research Methods

A quality traceability approach for user-centric context-aware systems in intelligent environments (IE) has been developed. The approach captures requirements and contexts of interest and combines them accordingly in context testing tables. Thereafter, a testing tool was developed and it automates the generation of test cases.

Parallel to the development of the testing tool, we developed a user-centric context-aware system to monitor and manage the behaviour of an individual who is prone to get into depression. The depression monitoring system is the test bed for the IE quality traceability approach.

4. Research findings and contribution

We have developed an approach for requirement and context specification that supports improved testing for context-aware systems. This approach guides the developer throughout the software development process of context-aware systems. We also provide the system overview and architecture of the IE quality traceability system.

Furthermore, we have developed a testing tool that automates the generation of potential test cases. The testing tool has been used to test the context-aware system. Additionally, the testing tool allowed the developer to select a subset of test cases from the possible combinations and automatically run tests.

The research links results of testing to the context testing tables and provides a level of fault localisation, allowing developers to test and validate the developed system.

Day 1 Papers A5 10:15 - 11:35

1. Paper A5 10:15 – 10:35
Author/s: Ahmed Eissa,
Xiaohong Gao and Xiaochun
Cheng

Title: Annotating Online Or Offline Video Footage Using Text Applying Deep Learning Techniques
Department: Computer Science

In the today's world, creating or recording a video became very easy, as all mobile devices and cameras are available to everyone. There are a lot of online videos watching platforms where everyone can watch videos under a topic of their choices such as YouTube and Vimeo. There are also video footages that are collected from the CCTV, which are been installed everywhere in this country and other countries.

Having video translated into meaningful text will help to create decisions based on the collected data from these videos, such as categorising the videos, automatically detecting

crimes from live videos, and student facial actions in a classroom to know the students' feedback on the lecture and much more.

In this research, we will investigate:

Summarising/annotating from videos algorithms to create an efficient algorithm and solution for the specific type of Intelligence analysis, by employing the suitable deep learning techniques.

It is the objective of this research to focus on the following points to address the documents search problem:

- Investigate image/video processing algorithms that could be used in this field.
- Identify the efficient image/video processing algorithms.
- Develop a prototype system to get translated data from videos using the proposed algorithms.

2. Paper A5 10:35 – 10:55

Author/s: Farida Eid

Title: Therapists' Experiences of Helplessness

Department: Psychology

Courtesy of their line of work, therapists are frequently brought face to face with the helplessness of clients as well as their own. The main aims of this research are:

- To explore therapists' own definitions of helplessness.
- To explore therapists' experiences of helplessness in their personal and professional lives.
- To explore how therapists experience any potential connection between the two sets of experiences.

Interpretative Phenomenological analysis was used as the guiding methodology. 8 participants were recruited and interviewed. The findings indicate that helplessness is experienced when participants encounter inability, uncertainty, and self-doubt/incompetence in both their personal and professional lives. The participants also evidenced helplessness in reaction to certain emotional experiences, including grief and anxiety, and employed distinct strategies in response to helplessness. Amongst these strategies are: giving-up, dissociation, pursuing further knowledge, doing, and planning. 7 domains of connection between personal and professional helplessness were identified. These areas of connection could be framed as follows:

1. Relationship with helplessness
2. Tools and techniques
3. Current helplessness
4. Similar instances
5. Similar strategies
6. Choice of profession
7. Empathy

These findings have important implications that could help inform our understanding of therapists' helplessness, as well as guide therapist training efforts.

3. Paper A5 10:55 – 11:15

Author/s: Belinda Donn

Title: A structural existential analysis of the experience of employees who have received workplace counselling: An exploration through the four worlds of existence.

Department: Psychology

Rationale: The aims of counselling in an organisational setting are performance and productivity and the role of the counsellor is to get the client/employee fit and ready to work

(Yeager, et al., 1983). Consequently, EAPs and workplace counselling programmes have been investigated and assessed primarily as types of psychological intervention (McLeod, 2010). This model ignores the humanistic factor that regular counselling in a private setting focuses on.

The existential perspective is that we cannot understand work separate from existential self; work must be viewed in terms of its relationship to the formation of the individual self and not as a separate sphere of life (MacMillan, 2009). Therefore, there is a need for these two spheres to come together to better understand the experience of the individual in workplace counselling.

Aims: The purpose of this study is to investigate the experiences of employees who received work-related counselling, which will be investigated through the four dimensions of existence (Van Deurzen, 1997, p.136). My aim is to go deep into the stories of each of my participants, to get to the core of the experience, so we can discover new ways of understanding this phenomenon of counselling in the workplace. Following the discovery of minimal information, qualitative research, and none from an existential or four worlds perspective about employee experiences, this study will attempt to add to the knowledge carried out to close the knowledge gap indicated by McLeod (2010) in his systematic review of workplace counselling research.

Expected findings and contribution: There are no other specific research methods that look at how we make sense of human existence in a world that is constantly changing. An existential perspective will bring a better understanding of how someone has experienced counselling through work, not simply in their private thoughts and feelings but also in relation to their work, family, peer group, society, culture, nature, or something beyond them, to ideas or to the universe (Van Deurzen, 2021). The study seeks to provide important information for the future development of counselling in a workplace environment, to the advantage of employees and the organisations involved.

4. Paper A5 11:15 – 11:35
Author/s: Cariona Flaherty

Title: Critical Thinking in Nurse Education: Exploring critical thinking from the nurse lecturers' perspective
Department: MProf/DProf TD

Introduction: Critical thinking is not a new concept to nursing, it first appeared in nursing literature in the early 1980s, and education for critical thinking dates back to Dewey (1910). The importance of developing critical thinking skills in nursing has heightened over the decades due to the changes in nurse education, advances in healthcare, and the complexity of patient's needs. The Nursing and Midwifery Council (2018) underpin education for nursing, and with that have placed heavy emphasis on the need for nurses at the point of graduation to be competent critical thinkers, which reflects the theme of knowledge in action. However, nurse lecturers face a number of barriers when trying to develop students to think critically such as; time constraints, content saturated curricula, heavy workloads, lack of established pedagogical approaches, and no clear definition for critical thinking.

Aim: The main aim of this research is to explore the lived experiences of nurse lecturers in relation to how critical thinking is taught and developed in undergraduate nurse education.

Methodology: A single exploratory descriptive approach was utilised.

Findings: Preliminary data analysis suggests that nurse lecturers for the most part utilise case studies, questioning, and clinical examples to support the development of critical thinking. However, there was inconsistency found with the approaches used within the classroom and understanding how these link to the development of critical thinking. Nurses

lecturer's definition of critical thinking reflected the linear nursing process, which has been criticised within the literature because critical thinking is thought to be much more than a linear process. Barriers faced by nurse lecturers include time constraints, heavy workloads, and lack of critical thinking specific training for nurse lecturers.

Day 1 Papers B1 11:40 - 13:00

1. Paper B1 11:40 – 12:00

Author/s: Anneke Prins,
Diane Purchase and Dirk
Wildeboer

Title: An investigation of the effect of mutations in lipopolysaccharide (LPS) of *Salmonella Typhimurium* on the colonization of microgreens
Department: Natural Science

In the last decade, a number of reports indicated that there is a significant increase in foodborne outbreaks caused by the consumption of fresh leafy greens known as "microgreens". This fresh produce is contaminated by *Salmonella Typhimurium*, which is a gram-negative facultative anaerobic bacterium and a common foodborne pathogen that causes Salmonellosis. LPS is a major component of the outer membrane of *Salmonella* that plays a significant role in the adherence and invasion. *Salmonella* can actively attach to plant tissues for successful colonization with one of the major factors of root exudates that leads to biofilm formation. This work aims to investigate the role of LPS and how it affects the production of root exudates by the host plant and the subsequent biofilm formation, using the wild type of *Salmonella Typhimurium* and the LPS-mutant strains. The root exudates could be released by secretion diffusion either actively or passively. The plant root exudates (RE) are secreted into the rhizosphere continuously and they can increase bacterial growth by the mechanisms of chemotaxis and biofilm formation. RE is classified into, low molecular weight organic acids (LMWOAs) and high molecular weight organic acids (HMWOAs). Here, we focused on LMWOAs because they act as the functional significance in regulating ecosystem productivity, in particular in the rhizosphere. Root exudates can serve as carbon sources and act as a signal to attract or repel microorganisms. We hypothesized that the bacteria stimulate plant root exudates to enhance biofilm formation by the production of essential compounds. Isolation of the root exudates from the control and treated plants and subjected to the HPLC elucidates the differences in bacterial attachment to the roots of microgreens. The results obtained in this study showed that organic acids are one of the potential routes for the contamination of all microgreens. The organic acids from the root exudates play a different mechanism and are related to the LPS of the *Salmonella Typhimurium*. This research work reveals the effect of LPS in the O-antigen and core region that have significance in the attachment and microbiological safety of microgreens.

2. Paper B1 12:00 – 12:20

Author/s: Meghan Luton,
Helen Allan and Herminder
Kaur

Title: Deaf women's experiences of maternity and primary care: an integrative review
Department: Nursing and Midwifery

Background: An estimated 24,000 people in the UK report using British Sign Language (BSL)

as their first language. Misconceptions about deaf culture and language mean that deaf people have less access to health information and their health literacy is lower. Deaf people's health needs go under the radar in primary care with ensuing poorer health outcomes. Deaf women's experiences of maternity care are poorly understood.

Aims:

- Explore deaf women's experiences of maternity services.

- Explore deaf women's experience of primary healthcare.
- Identify barriers as experienced by deaf women to accessing maternity care or primary healthcare.

Methods: Using Whittemore and Knafl's method for an integrative review, the following databases were searched: EMBASE, MedLine, CINAHL and Maternity and Infant Care.

After

reviewing 430 journal article titles and abstracts against the inclusion/exclusion criteria, 11 articles were included for final review. Selected studies were conducted internationally and were available in English. 10 were qualitative studies, 1 used survey design. They were reviewed using the Caldwell Framework.

Inclusion/Exclusion criteria:

- terms related to deafness excluding age related hearing loss.
- Terms related to women excluding experiences of health professionals, deaf children or deaf men only.
- Terms related to healthcare or maternity care excluding specialist services (such as breast screening) or experiences of access to education.

Findings: Deaf women avoid seeking care, have a lack of access to health information and healthcare providers, including midwives, have a lack of deaf awareness. During pregnancy, birth and postnatal periods, this can mean having longer hospital stays and more complex postnatal care needs in both the hospital and community setting.

Conclusions: Midwives working in public health can improve the experiences and overall health of deaf women and their families. Starting with health information and literacy, midwives can ensure that information is available in sign language, visual images and simplified written language. Engaging with the deaf community will ensure that health education is shared through peer interactions in much the same way as in hearing communities. Secondly, deaf awareness training will ensure sensitive communication practices and better awareness of the challenges faced by the deaf community.

3. Paper B1 12:20 – 12:40	Title: Evaluating Student Satisfaction in a Higher Education Institution using Appreciative Inquiry
Author/s: Nancy Veerayen	Department: Education

Student satisfaction is the lifeline of neoliberal higher education institutions. Therefore, research that sheds light on this unending and nebulous topic remains a priority that requires timely and innovative ways to acquire and manage a more definitive view of the global student population as opposed to importing and imposing ill-fitting or 'popular' student satisfaction research findings within a diverse student community. This study examines the notion of students' satisfaction in higher education in Mauritius.

The study used Appreciative Inquiry (A.I.) as a participatory approach to engage a broad group of students (and staff) and identify the experience of student satisfaction. Using semi-structured interviews and a case study approach allowed in-depth, multi-faceted explorations on how AI contributed to participants making their complex experiences of student satisfaction explicit and understandable. The study consisted of undergraduate students including some who held student leadership positions and staff. Initial findings indicate that students and staff acknowledge the term student satisfaction and the associated physical teaching and learning constructs needed to measure a satisfactory educational experience. But personal constructs and evaluations required supported frameworks to unveil intrinsic perceptions and to disclose 'honest' feedback about the

limitations at Tropical University Mauritius compared to Tropical University, parent university and the impact this has on student expectations and overall satisfaction. The notion of student satisfaction appears to be created by the west for the west and a pipe dream for the rest. The interim findings and contribution of this DProf study will be discussed in the presentation.

4. Paper B1 12:40 – 13:00

Author/s: Michael Davies,
Nimai Parmar and Nic
James

Title: The Influence of Event Data on Physical Output: A Case Study of an English Premier League Football Club
Department: Sports Science

The aim of this research was to employ machine learning techniques to objectively explore match-to-match variability and similarities between games within a single season for an English Premier League team. Physical performance data was collected from a singular English Premier League Team from 38 matches in the 2020-2021 Season, using a multi-camera optical tracking system. Twelve movement demand variables were included in Principal Component Analysis (PCA). Three factors were obtained and explained 85% of the total variance. Using the dimensionality reduced dataset, Hierarchical Clustering methods were employed. 5 unique clusters were labelled; Low Physical Output, High Output TIP (Team in Possession), High Demands OTIP(Team Out of Possession), High Output OTIP at Lower Speeds, High Demands TIP & OTIP at Higher Speeds and were identified in accordance with their varying distances at different movement thresholds and distances in and out of possession. K-means cluster analyses was conducted in order to allocate matches into four different categories dependent on the teams time in possession of the ball; Very High-Percentage Ball Possession Matches (VHPBPM) [64.87% ±1.87], High-Percentage Ball Possession Matches (HPBPM) [59.82% ± 2.32], Low-Percentage Ball Possession Matches (LPBPM) [49.5% ± 2.95] and Very Low-Percentage Ball Possession Matches (VLPBPM) [39.83% ±3.84]. Opposition strength was derived through k-means cluster analysis of final league standings (Very Strong = Rank 1 – 2 , Strong = Rank 3 – 11 ,Mediocre = Rank 12 – 15, Weak = Rank 16 – 17, Very Weak = 17 – 20). Alongside Match Location and Effective Playing Time, Possession ($p < 0.001$) and Opposition Strength ($p < 0.05$) were used to understand differentiations of contextual factors for each cluster. Overall, physical output differed from cluster- to-cluster. Possession and opposition strength were deemed to be significant as determinants of cluster composition ($p < 0.001$, $p < 0.05$). Future research should investigate actions that occur in and out of possession with higher granularity. Findings from the study have important practical implications for pre and post game strategies. Considerations regarding recovery should be based on understanding of match-to-match variability and matches with similar physical output.

Day 1 Papers B2 11:40 - 13:00

1. Paper B2 11:40 – 12:00

Author/ s: Bisi (Matthew)
Adewole

Title: Assessing the international Criminal Court's complementarity in relation to Situation in Georgia
Department: Department: Law

This presentation will focus on the International Criminal Court's Decision on the Prosecutor's request for authorisation of an investigation in Georgia (the situation in Georgia) issued on 27 January 2016 by the Pre-trial Chamber of the ICC. The court is a court of last resort and this connotes that National Courts have primary duty to investigate and prosecute international crimes while ICC has corresponding duty to undertake criminal proceedings where states fail in their primary duty. This presentation will discuss the principle of complementarity in respect of criminal proceedings initiated by the de facto authorities in South Ossetia. The decision raises some interesting doctrinal and theoretical

issues, such as whether an investigation or trial by non-state actors should be adequate to block investigation /prosecution by the ICC. In answering that legal question, the presentation will examine the substance of the decision and considers the separate opinion set out in that case. It will be argued that the decision in the particular context of South Ossetia (Georgia) was in line with the prevailing principles/values of the international legal order. The presentation will then show that objection to the ICC's deference to non-state actors' courts is strong. This is particularly because Article 31 of the Vienna Convention on the law of treaties demands that a treaty be interpreted in line with its object and purpose. The purpose of the Rome Treaty, it will be suggested, is to preserve state sovereignty while tackling impunity for international crimes.

2. Paper B2 12:00 – 12:20

Author/s: Najat El Mahdy

Title: Exploring Human Resource Management Practise through the Qatar HR Forum; framing the influence of 'Tharaba' culture and the development of Qatar-Centric competencies for HR Professionals practising in Qatar
Department: MProf/DProf TD

Qatarisation policy has emerged from the Qatar National Vision 2030 and has become embedded into organisations' core strategic visions. The objective of Qatarisation is to place knowledgeable local Qatars into senior professional roles to lead their country. Human Development is a core pillar of the National Vision and is an expected responsibility of each organisation and its employees. This responsibility directly impacts the Human Resource Management (HRM) function and HRM professionals developing talent in Qatar. This is a challenge due to a lack of Qatar-Centric frameworks available to HR Professionals practising in Qatar and a lack of understanding of influences on the HRM Practises.

This Doctoral Research project, influenced by social constructivism, explored the lived experiences of HR Professionals practising in Qatar who are members of the Qatar HR Forum. There were three main aims; to review HR literature while exploring the fundamental principles and context of the HR professional practise in Qatar; to explore ways HR practitioners in the Qatar HR Forum could drive and support a change in HRM practise, and to contribute to professionalising HRM Practise in Qatar.

A qualitative staged approach included surveys, interviews and focus groups to understand the complexities of HRM in Qatar. The findings show that distinctive expatriate and Qatari influences need to be considered with a new framing of how Qatari culture might influence and impact current and future HRM practises. This has been conceptualised as 'Tharaba Culture' – ثرابة, which encompasses behaviours, customs, and unwritten expectations that locals acknowledge as their culture. It is based on influences such as family ties, leadership status, expected norms and non-negotiable behaviours, engulfed in the wisdom of the respected elders formulated from tribal descent. The research further impacts practise, with a significant outcome being the development of a Qatar-Centric HR competency framework, which will provide a foundation for HR professionals to meet the unique challenges and complexities of HRM practise in Qatar.

3. Paper B2 12:20 – 12:40

Author/s: Stephen Owusu Addo

Title: Determination of refugees status and protection by states in the context of climate-changed induced displacements.
Department: Law

Not all refugees have had the best treatment in their new countries as the Refugee Convention requires. While some refugees battle with regulations set by some governments that limit the admittance of refugees, some other refugees have to deal with discriminatory attitudes from the citizens and other legal residents of the country. The government of any

state is voted in and paid tax to by the citizens and licensed residents of the state. This entitles them to the provision of basic amenities, including security protection. One of the important impact of climate change is migration. Yet, to date, climate-induced migrants are falling within what has been defined by some as a 'protection gap'. This paper addresses this problem, in the following ways, first by examining existing doctrinal and judicial approaches to refugees status determination. The paper also address the relevant actors' the identity of those deserving international protection, as well as other bearers of rights (migration hosting countries) and obligations (polluting countries). In addition, the paper address the contentious subject of definitions, concluding that the term 'climate refugees' should be encourage.

4. Paper B2 12:40 – 13:00	Title: Legal Professionals' and Lay Views on the Credibility of Expert Forensic Witnesses
Author/s: Mahensingh Deonaran	Department: Psychology

A review of the legal literature (i.e., legal conventions, criminal procedure rules and prosecution guidelines) reveal no single test or protocol in the criminal justice system for selecting expert forensic witnesses. With such a lack of unified thinking amongst legal professionals on how to select experts, it is highly questionable whether conventional admissibility standards and court safeguards provide jurors and judges with the kinds of information required to rationally assess expert opinion evidence presented at criminal proceedings. This accentuates the need for valid and reliable markers for expertise to be identified. Comparing the views of legal professionals ($n = 60$) and lay individuals ($n = 109$), the present study set out to determine the most important factors for judges to consider when assessing someone as an credible expert forensic witness. Based on the literature, participants were presented with 22 legal and non-legal "expert" criteria and asked to rate their level of importance. As well as computing the mean score ratings between the two groups, Principal Component Analysis was used to undercover dimensional patterns, whilst logistic regression was used to predict membership of the responses. In this talk, we will present the results of the survey and discuss recommendations for organizations within the legal and forensic domains overseeing the training of lawyers, judges, and forensic professionals.

Day 1 Papers B3 11:40 - 13:00

1. Paper B3 11:40 - 12:00	Title: The development of a somatic Relational Filmmaking Practice
Author/s: Dominique Rivoal	Department: Media and Performing Arts

In this presentation, I will talk about how I am focussing my investigation into the dyadic relationship between a mover and a filmmaker in its situated context to examine what may be an overlooked aspect of Screendance, in which the creative process of making a movement-focused film is explored for its transformative properties to learn about one's own relational behaviour.

My practice uses the emergent methods of Mind Clearing (Charles Berner) coupled with Authentic movement (Whitehouse/Adler) to investigate the inter-corporeal space between two movers as mediated by a camera. I will talk about my process, and how I am using the method of witnessing from Authentic movement as a method to focus the filmmaker's attention to the relational movement within the dyad.

2. Paper B3 12:00 – 12:20	Title: Supporting People Diagnosed With Schizophrenia Living In The Community And Their Families: The Ghanaian Experience Department: HSCE MProf/DProf
Author/s: Godfred Asamoah	

Schizophrenia affects one percent of the world's population, and it is also estimated that up to 50million people in the world have schizophrenia. Schizophrenia is rated among the top 20 disease burdens in the world and mental disorders are identified as a major cause of disability. Although evidence shows that a small percentage of the global population suffers from schizophrenia, its prevalence is high because of the chronic nature of the illness. Notwithstanding the low incidence of this illness worldwide, its burden on service users, families and society is colossal. The effects of schizophrenia include social isolation, a sense of worthlessness, or loss of social status due to the person's inability to perform socially assigned roles.

The aim of the study is to explore service users and caregivers' perceptions of support in caregiving.

Methodology: The study adopted a qualitative research strategy and utilised Interpretative Phenomenological Analysis (IPA). The phenomenological approach to investigating support offered in community mental healthcare enabled the service users, their relatives, and the nurses to share their lived experiences (i.e., beliefs and behaviours), and draw meaning from those experiences. The phenomenological approach provides the platform that embraces data driven study through interviewing and observing the participants during the interviews. The study purposively recruited 10 community service users living in their own homes and who have a diagnosis of schizophrenia, 21 informal caregivers of the service users, and six mental health nurses for interviewing. The interviews were audio recorded and transcribed for thematic analysis.

Study findings will be used to inform community mental health practice, formulate policies and educate both service users and their caregivers. Educating the caregivers and the service users will create the condition for their involvement, and help empower them in, the management of their mental illness.

The presentation will focus on the findings, analysis, and contribution of this research.

3. Paper B3 12:20 – 12:40	Title: An Alternative Approach to Information Security Awareness Training to Reduce Human Errors Department: Department: MProf/DProf TD
Author/s: Lukman Sharif	

Information security (InfoSec) is concerned with protecting the confidentiality, integrity and availability of information and information systems. InfoSec has traditionally been considered a technology problem with much attention often focused on technical solutions. However, technology alone cannot deal with all InfoSec risks. Research shows that an overwhelming percentage of InfoSec breaches are caused by human errors. It is ultimately the end users in any organisation that are the primary line of defence.

Whilst security breaches can be attributed to a variety of factors, inadequate user awareness training always features prominently. Awareness training programmes are often identified as a key contributor to changing user behaviour in order to achieve optimum security. However, research shows that whilst many organisations implement such programmes, security breaches resulting from human errors are still rampant which calls into question the effectiveness of existing InfoSec awareness programmes. This encapsulates the phenomenon that is the focus of this study.

This phenomenological study investigated the shortcomings in existing InfoSec awareness training programmes (vis-à-vis human errors) based on a literature survey of internationally peer-reviewed books, professional practice literature, journal papers, articles, policy documents and global security surveys. In addition, semi-structured, in depth, open-ended

interviews were conducted involving eight InfoSec academics and practitioners to understand their lived experiences and perspectives about the phenomenon in question. The research participants were encouraged to share their experiences of researching InfoSec threats and countermeasures as well as implementing and managing InfoSec awareness training programmes. The experiences shared by the participants offered valuable and practical insights into important issues surrounding human factors contributing to human errors, nature of security threats, the psychological aspects of human behaviour and factors contributing to the ineffectiveness (and effectiveness) of awareness training programmes.

Interpretive Phenomenological Analysis (IPA) was used to analyse participants' responses to interview questions in order to help answer the research question. The analysis culminated in the formation of valuable and practical guidelines, corroborated by academic, industrial, and professional practice research literature as well as my own professional knowledge and experience. The guidelines offered here will help to improve the processes and practices used to develop and implement effective InfoSec awareness programmes and can be built into future awareness programmes to reduce security breaches resulting from human errors. The guidelines will benefit a range of groups within my professional community including myself, InfoSec academics, InfoSec practitioners, organisational leaders, managers, chief information officers, chief information security officers, systems administrators, and end users. The outcome of this study contributes to the scientific knowledge and understanding of an important phenomenon and offers InfoSec researchers a springboard for further explorations into issues related to InfoSec awareness training and human behaviour.

4. Paper B3 12:40 – 13:00

Author/s: Steven Wells

Title: My Work Here is Done?

Department: Psychology

As a senior psychotherapy practitioner considering retirement, I am subjectively aware of the broader notions that there is no pre-determined retirement age or a pre-existing format or structure to guide the process of psychotherapists retiring from clinical work with their clients. This area of professional practice is under-researched and not clearly defined creating a huge potential for the knowledge, wisdom, and experience of these practitioners to simply disappear and be lost.

This research project acknowledges that knowledge exists in a variety of forms. In existing and tangible forms such as published books and articles acting as a means of retaining knowledge and in less tangible ways, such as in the minds, hearts and experiences of practitioners which is much harder to capture, but when shared and explored with others, can contribute to the creation of knowledge. Is it inevitable that this rich source of knowledge simply disappears when the practitioner retires or dies.? In what ways could it be captured and used as a resource for less-experienced practitioners.

The research project has an innovative approach to data collection and analysis and has been constructed in two parts – In the first part the participants will interact with one another exploring question posted on a private, secure bulletin board. This data will be analysed to identify themes linked to experience, knowledge and the process of retirement and legacy. Part two will explore these themes using an arts-informed methodology that will allow potential for a more subjective and meaningful exploration of individual contributions to the profession and what might be handed down, in terms of knowledge to less-experienced practitioners and the many forms this might take.

Day 1 Papers B4 11:40 - 13:00

1. Paper B4 11:40 – 12:00

Author/s: Temi Oyelere

Title: Accounting and Accountability in the Nigerian Non-governmental organisations (NGOs)

Department: Accounting and Finance

Non-governmental organisations (NGOs) in Africa and other emerging economies are facing financial challenges due to significant reduction in official development aid and other foreign donations which traditionally is their main source of funding (Arhin, et al.,2018). To remain financially sustainable, these NGOs are diversifying by sourcing funds locally from individuals and corporate organisations; partnering with private sectors, internet fundraising and engaging in commercial activities. This new funding model however has implications for the accountability of NGOs as these funders will require specific accounting information and accountability (Cordery, et al,2019).

The reclassification of Nigeria from a poor to a middle-income economy by the world bank has resulted in significant decline in foreign funding (Arhin, et al.,2018), hence NGOs are deploying strategies to continue operating. Using the stakeholder theory, the aim of this PhD is to understand what form of accountability Nigerian NGOs provide to their different stakeholders, especially the domestic ones (individual and corporate donors; beneficiaries). According to stakeholder theory, organisations have a responsibility to all its stakeholders and when there is a conflict in the interest of stakeholders; an optimal balance which ensures fairness should be pursued. In order to achieve this aim, the focus will be on answering these questions: 1. How do Nigerian NGOs discharge accountability to their stakeholders? 2. What form of accountability do stakeholders require? 3.What mechanisms are in place (both government and self-regulatory) to hold NGOs to account.

Semi-structured interviews will be conducted with a range of national NGOs and their stakeholders including NGO officials, donors, beneficiaries and regulators.

The research will help identify gaps between the current practices of NGOs in view of the existing and the information needs of the stakeholders. It will also help regulators in formulating accountability standards that will enhance trust and transparency in the sector.

2. Paper B4 12:00 – 12:20

Author/s: Perihan Mostafa
Abdelghaly

Title: Examining SMEs Responses to Public officials' Petty Corruption in Egypt

Department: CEDR

Small and Medium Enterprises (SMEs) are key driving force in developed and developing economies (Abdelbary 2019; El-Said and Zaki 2014). SMEs represents 75% of the economy in Egypt and provide above 60% of the job creation (Abdelbary 2019; World Bank 2017; El-Said and Zaki 2016). SMEs in emerging economies are said to face a set of challenges, one of which is “public officials’ corruption”. The literature has quantified corruption in Egypt and ranked the phenomenon amongst the top five challenges that threaten businesses sustainability, placing Egypt as one of the top corrupt countries in Africa and the MENA Region (Transparency International 2018), Nevertheless, SMEs in Egypt increased over the 2.5 million enterprises in 2018 (Abdelbary, 2019). The number is expected to have increased with the government new economic reform framework and national SME development programme. Nevertheless, limited research informs how small and medium-sized firms in some developing and emerging economies manage to survive and cope with the high corruption levels. Thus, this research has examined small and medium-sized enterprises in Egypt responses to state petty corruption. The research concluded some responses and new emerging themes and factors shaping corruption.

3. Paper B4 12:20 – 12:40
Author/s: Qiong Yuan

Title: The moderating effect of ownership structure on the relationships between AI technology adoption and firm performance: a longitudinal analysis (Panel Data)
Department: Marketing

From the perspective of corporate attributes, this research proposal will analyse the impact of Artificial Intelligence technology adoption on firm performance, and put forward research hypotheses. According to principal-agent theory, this research proposal introduces ownership structure as a moderating variable to study the mechanism of Artificial Intelligence technology adoption and corporate performance. Many companies are engaged in adopting AI. However, the actual adoption of AI by companies can be challenging. This study aims to understand the relationship between AI technology adoption and firm performance, as well as the potential moderating effect of ownership structure in this relationship, among public listed companies. This study will focus on 200 public listed companies from 2015 to 2022. Secondary data will be collected. The annual reports and websites of these companies will be the major source of data. This study will use SPSS statistics to test the relationships between variables. The ethical issues of this study include the potential harm to individual subjects and ownership of data. This study will avoid using data that contains identifying information and has unclear ownership. Previous studies simply explore the direct relationship between Artificial Intelligence technology adoption and enterprise performance, ownership structure and Artificial Intelligence technology adoption, or ownership structure and enterprise performance, ignoring the potential moderating role of ownership structure in Artificial Intelligence technology adoption and enterprise performance, so this study introduces ownership structure, which plays a fundamental role in corporate governance as a moderating variable (Ismail et al., 2017). It thereby enriches the theory of Artificial Intelligence technology adoption transformation efficiency and corporate governance.

4. Paper B4 12:40 – 13:00
Author/s: Andrew Peters, Nic James and Nimai Paramr

Title: Expected Turnovers (xTurnovers) - A Statistical Model to Analyse Turnover Events in Football (Video screening with commentary)
Department: Sports Science (recorded)

A major obstacle facing football analysts is evaluating a player's performance effectively and accurately (Decroos, Bransen, Van Haaren, & Davis, 2019; McHale, Scarf, & Folker, 2012) since different positions have different performance roles. Whilst previous studies have evaluated player on-the-ball actions such as shooting opportunities (Caley, 2015; Lucey, Bialkowski, Monfort, Carr, & Matthews, 2014) and passing (Bransen & Van Haaren, 2018; Power, Ruiz, Wei, & Lucey, 2017), here a framework to evaluate player's retaining possession using a novel "Expected Turnovers" (xTurnover) metric, is presented. This metric was modelled using logistic regression, and the inclusion of positional features improved the model accuracy. xTurnovers serves as a practitioner Key Performance Indicator (KPI), as analysts can identify players and teams that lose possession more often or not than expectation. Future work may include applying this model to data from different seasons and leagues, to establish the inter and intra variability of turnover performance.

Day 1 Papers B5 11:40 - 13:00

1. Paper B5 11:40 – 12:00

Author/s: Shannah Anico, Lizi Smith, Laura Wilson and Emma Eyre

Title: Does the Mayor of Barnet's Golden kilometre influence physical literacy levels in primary school children?
Department: Sports Science

Background and aim: The Mayor's Golden kilometre (MGkm) has been established as a feasible, low cost physical activity initiative, involving primary children running one km every day whilst at school, in addition to PE lessons. This has been developed in response to the rising obesity and physical inactivity levels within Barnet, London. Physical literacy (PL) has been highlighted as more important than solely physical elements such as physical activity and motor competency, to maintain a healthy lifestyle. In order to engage in physical activity for life or be likely to maintain an active lifestyle in adulthood, children should develop their physical literacy levels. Therefore, this study aims to evaluate the effects of the MGkm on PL components (physical, cognitive and affective) of primary school children who participate in the intervention for one academic year. **Method:** Two primary schools in Barnet are currently taking part (179 pupils across primary years 3-6). Baseline data collection was completed in December 2021 and follow-up measures are due to be completed in July 2022. Children's PL outcomes are assessed using anthropometric measures, height, mass (to calculate BMI), body fat percentage, waist to hip ratio, fundamental movement skill assessment, physical activity assessment (Physical), motivation/confidence questionnaire (Affective), focus groups, and well-being and lifestyle questionnaire (Cognitive). **Statistical Analysis:** Quantitative: 2X2 MANOVA to identify changes in all the above quantitative measures (Group: intervention/ control X Time: Pre/ post-intervention). **Qualitative:** Thematic analysis will be conducted using Nvivo 12 software to establish general dimensions and subsequent themes. **Results:** Baseline findings will be presented at conference. **Conclusion:** There is no research assessing PL alongside this intervention type. The research will give insight into the current understanding of PL and the MGkm intervention and could influence future resources within primary schools. Findings from this research could contribute to developing school-based tools to tackle obesity and physical inactivity.

2. Paper B5 12:00 – 12:20

Author/s: Denisha Seedoyal-Seereekissoon

Title: An experimental investigation of the impact of positive versus negative advertising message framing, moderated by gender, on charity donation: a study in the context of anti-domestic violence campaign in Mauritius
Department: Marketing

Within the sphere of social advertisements, recent studies (El-Khoury and Shafer, 2016; Shortland and Palasinski, 2019) focused on encouraging pro-social behaviours (such as seeking help; behaviour change) instead of generating donation, despite the increase in number of charities and competition for funds. Moreover, research (Chung and Lee, 2019; Muralidharan et al., 2020) demonstrated that there is an ongoing debate about which type of message framing (i.e. negative versus positive) is more effective on intent to donate. Amid negative appeals, disgust is relatively new and under-researched although it proved useful in encouraging empathy and recruiting volunteers (Allred and Amos, 2018; Hamerman and Schneider, 2018) but not donation. On the other hand, within positive framing, recent studies (Homer, 2021; Muralidharan et al, 2020) demonstrated that hope is more efficient (than appeals such as anger; guilt; solidarity; repulsion and pity) in encouraging intent to donate (Hudson et al., 2019). However, to date, there is no evidence whether hope is more effective than disgust on donation and vice versa. The study, also, considers the moderating role of portrayal of male (versus female) victims. Therefore, the aim of this study is to determine the impact(s) of using a positive (i.e. hope) versus a

negative message framing (i.e. disgust), moderated by gender, on actual donation behaviours, in the context of anti-domestic violence campaign. The independent variable of this study is positive (i.e. hope) versus negative (i.e. disgust) message framing. The dependent variable is actual donation behaviour. The independent and dependent variables are moderated by gender. An experimental design will be conducted to measure the cause-and-effect factor. Participants will be exposed to different types of advertisements on a fictive website. Each advertisement will have a donation button leading to an online survey. The experiment will comprise of a 2 (hope versus disgust) x 2 (male versus female victim) within subject factorial design. This research is expected to bring light to the ongoing debate of effectiveness of negative versus positive message-framed on pro-social behaviours (i.e. donation). Furthermore, it will guide charities who are sensitising against causes like domestic violence in improving their communication appeals and, thus, gathering more donations.

3. Paper B5 12:20 – 12:40

Author/s: Mahnoor Yaqoob,
Ramona Trestian and Huan
Nguyen

Title: Network Performance Prediction for B5G Networks

with Graph Neural Network

Department: Design, Engineering and Mathematics

Extreme connectivity, dynamic resource provisioning and demand of quality assurance in 5G and B5G networks calls for advance network modeling solutions. Network modeling enables to evaluate the subsequent performance of what-if scenarios without necessarily changing the state of data plane. Moreover, network modeling is profitable for network control and management applications of B5G such as planning, efficient recovery in case of failures and optimization. Cutting edge solutions in network modeling of end-to-end network performance can act as basis for more network automation and optimization solutions for B5G with minimum computational costs. We need functional network models that are able to produce accurate prediction of Key Performance Indicators (KPI) such as latency, overall delay, jitter or packet loss at low cost. Graph Neural Networks (GNN) have already shown great potential for network performance prediction, because of their ability to understand the network configurations. We intend to focus on further improving the generalization capabilities of GNN in relatively complex IP transport network scenarios of future generation networks. We have taken RouteNet GNN as a reference model and made improvements to existing GNN architecture. After hyper-parameter tuning for RouteNet and updated GNN, the results show that our model outperforms baseline architecture in evaluation phase. The validation losses for scenarios not seen during training phase, are significantly lower than the RouteNet.

4. Paper B5 12:40 – 13:00

Author/s: Praveer Towakel,
Huan Nguyen and David
Windridge

Title: An examination of multi-modal fusion for an FMCW

radar and RGB-data

Department: Design, Engineering and Mathematics

Recognition of human gestures is an important subject in computer science, especially in computer vision and sign language. This research area aims at interpreting human gestures with a combination of data capture, mathematical models and AI. There is much diversity in how humans perform specific gestures. While humans have a high tolerance for errors, this inconsistency makes the detection and classification of gestures more difficult for machines. This is even more complex for human-machine interactions (HMI) where the number of potential interactions with digital objects is limitless and additional factors such as overlapping, occlusion, and interpretation issues can further inhibit recognition. In our study, we propose a multi-modal fusion method for the recognition of multi-hand gestures using a frequency modulated continuous wave (FMCW) radar sensor. The FMCW radar is applied to acquire the intermediate frequency (IF) signals of multi-hand gestures to construct a

range-Doppler mapping (RDM). This RDM is then fused with RGB-image data in an architecture consisting of 3d-convolution-neural-network (3DCNN), long-short-time-memory (LSTM) and attention layers. Our proposed system can switch from early to late fusion (SVM) depending on the availability of modalities. Results obtained by the proposed approach suggest that effective fusion of radar and RGB data can be done to improve the classification accuracy of each data source significantly. The presentation will show the architecture and design of the system along with an experimental evaluation with different modalities.

Day 1 Papers C1 15:10 - 16:30

1. Paper C1 15:10 – 15:30

Author/s: Kate March

Title: Feel Her Pain Project: Emerging Research Insights

(Video screening with commentary)

Department: Media and Performing Arts

FEEL HER PAIN is a Ph.D artistic research project exploring different ways to articulate women's (endometriosis) pain experiences using artistic processes and creative collaboration. A major interest of the research involves exploring the communication, expression, and representation of pain especially in those who suffer with the symptoms of endometriosis. Through a nuanced mixed method weaving a solo arts practice with dialogic interactions and creative exchanges with collaborators, the research is guided by the following questions: What new insights and knowledge might we unearth by exploring the communication and expression of female pain, like endometriosis pain, beyond the more traditionally or scientifically accepted linguistic and numeric forms? Can unconventional modalities of communicating and expressing pain spark new dialogues and weight around the experiences of women in pain? The focus on exploring the lived body experiences of women in pain will draw much needed attention to endometriosis and other related women's health experiences marked by pain. Such topics are, surprisingly, largely absent from existing Feminist Disability Studies and Feminist (both existential and phenomenological) literature and topics that, when left perpetually unattended, will continue to inflict tangible repercussions on women's lives. Working dynamically in the intersectional space of pain studies, communication and creative expression/arts research, the project intentionally emphasises the often ignored experiences of women in pain by transcending the traditional use of words and/or other standard objective measurements and instead, placing collaborative art-making and dialogic interactions at the heart of the pain expression research. This performative presentation will share aesthetic trends, conceptual and art-making developments, and other unique female pain and pain communication insights that have organically emerged in the initial research stages.

2. Paper C1 15:30 – 15:50

Author/s: Sindu Prasad

Title: Graduate Employability : A Multiple Stakeholder

Investigation in the UAE

Department: Education

Enhancing graduate skills to attain employment remains a challenge to Higher Education all over the world. Scholars and researchers have conducted plenteous studies for the past 30 years to resolve the issues, which, by and large, results in a blame game between the key stakeholders (Employers, Academics, and graduates). One of the mechanisms to resolve the issues is to take a closer look the issues. Therefore, this Doctoral research seeks to explore a multi-stakeholder perspective on how the phenomenon of 'graduate employability' is perceived, experienced, and promoted, by the key stake holders in the United Arab Emirates. Therefore, this presentation aims to uncover the preliminary findings from the literature synthesis of Scopus indexed Journal Articles from last decade. The presentation will engage into a critical evaluation of the key themes surfaced from the literature synthesis

which are, ‘curriculum update to meet labour market demands’, unrealistic lists of demands placed by employers and lack in clarity of the term ‘employability’, ‘skills’, ‘capabilities’ and ‘attributes’ by stake holders and scholars. As a way forward, through a sequential mixed method research design, this study intends to collect primary data in the form of qualitative interviews (from faculty, Alumni and graduates) initially from three distinctively different case study universities of UAE, as well as employers of the region, followed by a country wide survey questionnaire to all stake holders who contribute to graduate employability. This will gauge the magnitude of the insights gained through the interviews. Finally points of convergence (if any) between both primary data will be compared to form meta- inferences that is thought to answer the research objective, and are expected to benefit policy makers, higher education practitioners and employers of UAE. A pilot study is planned through a small-scale implementation to prove the viability of this project.

3. Paper C1 15:50 - 16:10
Author/s: Chitisha Gunnoo

Title: Reviewing Assessment in the Information Age in Post Covid Mauritius
Department: Education

One of the most important – and impactful – components of the educational process is assessment. It is also thought to be one of the most hardest to change. However, assessment reform is becoming more apparent, particularly if it is to keep up with other theoretical, cultural, and technological changes that affect teaching and learning.

With the COVID 19 pandemic forcing many institutions to shift to online education, several universities around the world have had to invest heavily in developing online teaching, necessitating the use of evaluation mechanisms as the most effective way to assess the impact of teaching-learning processes on university students.

The notion that digital technology can aid in the transformation of education, particularly evaluation, is not new. Because of its potentially advantageous qualities or affordances, such as giving more customized, immediate, or engaging assessment experiences, new technologies and tools have long been considered as opening up new opportunities.

Indeed, with the current focus on expanding the traditional face to face assessment mode in Mauritian institutions, more research is needed to better understand how technology supports or promotes educational transformation, particularly in summative and formative assessment. We will also look at affordances that are most effective in supporting the outcomes educators envision in today's educational context, especially given the variety of existing technological tools used at Middlesex University Mauritius.

Consequently, the question whether it is necessary to mobilize a new assessment vision that takes into account the feasibility and cost of various tools and technologies, reflects an understanding of effective feedback, provides thoughtful and equitable assessment, and supports the dispositions, knowledge, and literacy needed to help students thrive.

4. Paper C1 16:10 - 16:30 Author/s: James Phillips	Title: Jesus in Islam - In What Ways are Contemporary Muslim Authors Writing to the American Public Representing Change in Relation to Classical Muslim Understandings? Department: Law/Partner
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Tarif Khalidi, a contemporary Muslim scholar, has observed that the identity of the Jesus of Islam has been changing since the canonical writings of the Qur'an and Hadith. If Khalidi's observation is ongoing as portrayed by contemporary Muslim authors writing to the American public, then Islam in America may be responding to embrace or reject the change - "knowledge in action."

This research has gone beyond previous investigations to examine Khalidi's comment in a contemporary American context and quantify the observed movement from classical understandings by author and theme. This is a text-based, qualitative research project utilizing a textual analysis process recommended by Frey, Botan and Kreps. Following Walter Schumm's measurement method, movements have been categorized thematically and assigned a category indicating degree of movement from classical understandings.

Ten thematic categories representing movement from classical understandings have been identified. This presentation will focus on two themes: 'Isā as the living revelation of Allah and 'Isā as the ultimate hope for Islam - a prophet for this time - Muslims, Christians, and Jews. The presentation will use these themes to demonstrate movement in understanding of the Jesus of Islam from classical understandings. Several factors contributing to this movement will also be offered with the implications these movements may have upon Islam in America.

Day 1 Papers C2 15:10 - 16:30

1. Paper C2 15:10 – 15:30 Author/s: Maxine Stephenson	Title: A CRT- informed exploration of current mentoring practices within education of Black Caribbean Males (BCMs) Department: Education
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This presentation proposes to investigate current mentoring practice in secondary schools for BCMs. This paper will use the case study approach to address this.

Educational institutions have been failing to meet the needs of Black children for some time (Coard, 1971). The debate surrounding the 'educational disadvantage' of BCMs within the British educational system has attracted a great deal of research attention (Rollock et al, 2015:3). The underachievement and exclusions of BCMs in secondary schools is undisputed in current academic and policy literature (OFSTED 2006; Demie & McLean 2017; DfE, 2018). The cohort has been problematised educationally and socially (Archer and Francis, 2005:166) and criminalised (Perera, 2020).

This study will research mentoring as 'knowledge in action' contributing towards improved knowledge and understanding of relevant, equitable and inclusive mentoring practice.

Mentoring in education has potential for BCMs in terms of raising achievement, aspirations and self-esteem. It exposes students to positive role models who can help with specific life skills and opportunities' (Brown, 2009:2) as well as guidance and encouragement (Rhodes, 2002:2). The narrative associated with mentoring interventions, however, tends to be as a response to 'at-risk' (Goings et al, 2017:348), 'disadvantaged' students with 'challenges' (Archer et al, 2010:17). This is specifically the case for BCMs. This deficit paradigm may sustain existing racial and economic inequities in urban schooling (Ladson-Billings and Gillborn, 2005).

There is much about mentoring to be celebrated. However, this research will approach mentoring more critically. Critical race theory (CRT) will be used to understand how race plays a part in the educational outcomes of BCMs, and by extension within mentoring practices. The design follows a case study approach utilising qualitative methods of data

collection. These methods include focus groups with BCM mentees and semi-structured interviews with mentors, mentoring leads, teachers, headteachers and/or any staff responsible for mentoring. This research proposes to use three case studies; a mainstream school, a school for pupils with emotional and behavioural difficulties (EBD) and a supplementary school to explore the mentoring experiences and perceptions of BCMs and mentors as well as the problematic elements surrounding mentoring such as how BCMs are identified and recruited.

2. Paper C2 15:30 – 15:50	Title: Corporate Social Responsibility Tax as a response to progressing job automation
Author/s: Ewa Dalek-Trudnowska	Department: Law

This is socio-legal study. The study analyses Corporate Social Responsibility (CSR) from the legal perspective. The study is limited to the legislation of the European Union. In the EU the CSR is regulated by 'soft law', that means code of conducts. However, as the development of AI systems is progressing it creates gaps in legislation that have to be addressed. The European Commission closely monitor these changes and adjust legislation accordingly, the latest is the EU Artificial Intelligence Act that has yet to be implemented. This is conceptual legal research. This project focuses on the job losses caused by Artificial Intelligence systems and asks whether there are specific notions of CSR that could be used to justify an additional corporate tax liability for those companies that implemented AI systems leading to these job losses. There are further questions regarding this matter, such as how to protect people who lost their jobs due to job automation or where the money will come from to finance such schemes. The research project proposes the CSR Tax imposed on companies that replace human workers with automation and other types of AI systems. CSR Tax offers a stable, efficient and affordable source of funding for the EU Member States that fits within its social economy market. The income generated through CSR Tax can then be distributed by the governments to unemployed people as a non-means-tested benefit in the form of Universal Basic Income (UBI).

3. Paper C2 15:50 - 16:10	Title: Microfinance and Financial Inclusion: Role of Microfinance in Development of SMEs in Tanzania.
Author/s: Diana Francis and Ignatius Ekanem	Department: MLO - Management Leadership and Organisation

The proposed research's proposal aims to investigate the role that microfinance and financial inclusion plays in Tanzania's SMEs development. The specific objective that the study seeks to explore is the dimensions of SME's operations that microfinance institutions aim to develop and the role of government in supporting microfinance institutions for SMEs' development. Also, the study seeks to explore the extent to which recent pandemic (COVID 19) and economic changes destabilize the relationship between microfinance institutions and SMEs in Tanzania.

The proposed study will adopt a qualitative research approach. This will provide rich and quality data gathering which will enable a wider understanding and knowledge (Ekanem, 2007). The study will begin with the design of research interviews which include conducting a pilot study, sampling, data collection, and data analysis. Purposive sampling and open-ended interview guides will be used to enable the researcher to summarize the aim of the research. Purposive sampling provides the researcher with the liberty of choosing the most appropriate sample (Sharma, 2017).

4. Paper C2 16:10 - 16:30 Author/s: Mai Mahmoud, Georgios Dafoulas and Noha Saleeb	Title: Factors Affecting the Deployment of Learning Analytics in Developing Countries: Case of Egypt Department: Computer Science
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Higher education institutions in developing countries such as Egypt are challenged with high enrollment student rates, crowded classes, and an inability to track the progress of each student individually, which has increased the demand to find a solution that can redeem those problems. Although the use of learning analytics is an expanding solution to support different educational challenges, from performance tracking to detecting students at risk, learning analytics' developments have concentrated on addressing solutions for developed countries. Accordingly, the discipline still requires a broader and in-depth interpretation of its contextual usage in developing countries, especially Egypt. A research model has been constructed based on literature and tested for validity and reliability. A questionnaire has been distributed to 148 university students. The study used smart-PLS to interpret and analyse the collected data. The study revealed that organisational culture, data accessibility, trustworthiness, and visualisation have a positive effect on awareness, while lack of ability has a negative effect on awareness. Both infrastructure and awareness have significant positive effects on learning analytics impact. The research indicates high learning analytics awareness and a high perceived impact on Egyptian higher education. Evidence should be provided with the collection of more insights from students, faculty members, and decision makers.

Day 1 Papers C3 15:10 - 16:30

1. Paper C3 15:10 – 15:30 Author/s: Sailendra Ramanna, David Windridge and Santosh Tirunagari	Title: Detection of Alzheimer's EEG Signals using Constrained Singular Spectrum Analysis and 1D-Local Binary Patterns Department: Computer Science
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Alzheimer's disease (AD) is prevalent amongst the elderly population. AD has a pre-symptomatic phase in which degeneration occurs but no visible symptoms are perceived. A World Health Organisation (WHO) report suggests that 47 million people live with an Alzheimer's related disorder. There is no cure for elderly patients with AD; it is therefore crucial that the disease is detected as early as possible in order to assist its mitigation. In electroencephalogram (EEG) based cognitive neuroscience, early detection of Alzheimer's syndrome can enable clinical assistance or clinical support devices to be activated prior to the onset of crippling clinical symptoms. A number of learning-based approaches have consequently been proposed for automated classification of AD EEG signals over the years, with a significant strand of progressive performance gains being obtained through decomposition-based techniques using spectral and wavelet features alongside supervised classifiers to increase classification accuracy.

In this research, we present a novel method for the detection of Alzheimer's. The proposed pipeline consists of 3 stages namely constrained Singular Spectrum Analysis (SSA), one-dimensional Local Binary Patterns (1-D LBP) and Classification (via the use of a support vector machine SVM). We evaluate the performance of our proposed pipeline on standard datasets, comparing results against the hitherto state-of-the-art approach of non-SSA based 1D-LBP, utilising F-measure performance metrics on the reference data. The results are lined up against other proposed pipelines to assess performance.

2. Paper C3 15:30 - 15:50
Author/s: Chelsea Bland,
Xuesong Wen and Britta
Stordal

Title: Investigating the effects of EZH2 inhibitors on targeting epigenetic changes in head and neck squamous cell carcinoma
Department: Natural Science

Introduction - Head and neck cancer affects both men and women worldwide with the most common type being squamous cell carcinomas. Head and neck squamous cell carcinoma (HNSCC) has an overall incidence of approximately 800,000 cases and is the 8th most common cancer type in the UK, with an infection with human papillomavirus (HPV) being a key risk factor. HPV oncogenes E6 and E7 interact with tumour suppressors p53 and Rb respectively to silence their actions and create a favourable environment for viral replication and tumour growth. EZH2, a histone methyltransferase, of PRC2 has been linked to the development of cancer, correlating with the aggressive nature, metastasis and poor prognosis in several cancer types including HNSCC. Several EZH2 inhibitors have been developed but few have been investigated in HNSCC to evaluate their potential as a chemotherapeutic agent, investigating the association between epigenetic changes and HPV associated cancers and their associated mechanisms following EZH2 inhibitor treatment.

Methods – Cell proliferation assay, MTT assay, was conducted to determine drug cytotoxicity. Apoptosis analysis using flow cytometry; immunocytochemistry (ICC) staining and western blotting for expression levels of various epigenetic markers including: EZH2, H3K27me3, and HPV oncogenes, E6 and E7. Conducted on cell lines derived from head and neck region, HN5, (HPV negative), and SCC47 (HPV16 positive).

Results – EZH2 inhibitors, GSK343 and GSK126, induced apoptosis in both cell lines ($p < 0.05$) with EZH2 inhibitors exhibiting a larger effect in HPV16 positive line, SCC47. GSK343 and GSK126 decreased expression levels of EZH2, H3K27me3 and HPV16 oncogenes, E6 and E7, following 48hour treatment in western blotting ($p < 0.05$) and confirmed by ICC staining. GSK343 appeared to demonstrate similar reductions across both cell lines in regards to each marker whereas, GSK126 appeared to be most effective in HPV positive cell line, SCC47, in reducing EZH2 expression.

Conclusions – EZH2 inhibitors demonstrated their effectiveness in reducing EZH2 and H3K27me3 expression in both HPV positive and HPV negative cell lines, SCC47 and HN5, respectively. An association between EZH2 and HPV was identified with HPV16 oncogenes expressions decreasing following EZH2 inhibitors, GSK343 and GSK126 treatment.

3. Paper C3 15:50 - 16:10
Author/s: Di Di Cui and
Xiaohong Gao

Title: Early detection of oesophageal cancer through colour appearance models
Department: Computer Science

The challenge for early detection of oesophageal cancer is the subtle change of appearance of diseased regions in human eyes, including colours. Many pieces of evidence show that the five-year survival rate of oesophageal cancer (OC) can be improved significantly by early detection when the doctor can still treat oesophageal cancer endoscopically. However, the current endoscopic camera's output colours depend on its device. This research investigates the feasibility of applying colour models to enhance and detect these changes to ensure the doctor can obtain WYSWYG (What You See, What You Get) colours through endoscopic cameras.

The first step of this work is to measure the differences between lesioned regions and their immediate surrounding normal tissues. Towards this end, two colour models of CIELAB and CIECAM02 are employed to measure the differences between two endoscopic cameras. Preliminary results show that the difference between the two cameras is 13 DE in CIELAB.

The next step is to measure the colour contrast between lesioned regions and surrounding normal tissues. In addition, the colour appearance models are applied to identify the artefact pictures or areas. Specifically, this will distinguish the colours by finding colour palettes on the oesophagus image to analyse the representative colours of normal and cancer.

Due to the slight difference between endoscopic cameras, generating a colour palette for an image tends to help by figuring out the lesion colour patterns. Determination of colour palettes is a clustering problem and can be created using machine learning, e.g., k-means clustering and deep learning approaches. For example, at 4, the agglomerative clustering approach performs better for sparse colours in an image. This work will investigate the application of the CIECAM model from a human perception point of view.

4. Paper C3 16:10 – 16:30

Author/s: Chris Cleave

Title: How do people heal their minds in everyday life?

Department: Psychology

Social Work and Mental Health

INTRODUCTION:

There are over 200 accepted types of psychotherapy in common use today, from the familiar favourites – like CBT and mindfulness – through to some wondrous outliers (like Nude Psychotherapy, Superhero Therapy and Holotropic Breathwork). Many of these therapies are extensively researched, and therapists argue passionately about whose approach – and whose evidence – is best.

But even people who are ‘in therapy’ spend the vast majority of their time NOT in therapy. Amazingly, it turns out that we know very little about what people do to heal their minds and emotions during the 167 hours per week (at least) that they spend outside the counselling room. And yet, many people are extremely good at that part. My research explores this surprising knowledge gap, by simply asking people how they did it.

RESEARCH AIMS

The therapist and researcher Simon du Plock recently proposed the Everyday as an important therapeutic locale, suggesting activities like reading and writing, attentive observation, exercising, experiencing nature, and engaging in dialogue as common therapeutic processes. My research aims to uncover the what and the how of these and other Everyday experiences: what it is that people seek, and how these experiences come to be integrated as ‘therapeutic’.

RESEARCH METHOD:

I’m using a qualitative method called Hermeneutic Phenomenology. ‘Hermeneutic’ means that the researcher consciously interprets the participant’s words, reflects on the way they’re interpreting, and makes that transparent. ‘Phenomenology’ here means the study of people’s lived experience in their own terms, rather than the researcher’s. And if you’ve spotted a creative tension between these two definitions, you’ve located the engine room of the method.

EXPECTED CONTRIBUTION:

I hope my research will be useful to Psychotherapists and Counselling Psychologists (across all approaches) who are interested in working ‘with the grain’ of people’s Everyday experience.

Day 1 22.6.22 Abstracts for Posters

Chair/Organiser Gordon Weller

Judges: Leena Robertson, Huw Jones, Dandan Han, Vida Midgelow, Elda Nikolou-Walker

1. Author/s: Dora Vidalina, Song Wen, Lucy Ghali and Nick Kassouf

Title: The effectiveness of EZH2 inhibitors in treating Human papillomavirus associated cancers and associated pathways
Department: Natural Science

High risk Human papillomavirus (HPV) has been confirmed to be associated with cervical cancers and other cancers such as, head and neck, anal and penile cancer, some research on epigenetics and Epithelial to mesenchymal transition (EMT) on pathogenesis of those cancers, but there is still no consensus on the exact roles of epigenetic regulators in managing these conditions. EMT is a process of conversion of epithelial cells to mesenchymal cell, which affects phenotypic cellular changes including acquisition of properties of migration and invasiveness. Given that EMT is included in pathological processes as cancer progression and metastasis, it could be involved in drug resistance which could be related to high HPV infection. Furthermore, recent findings reported overexpression of enhancer of zeste homolog 2 (EZH2) inhibitors in HPV cancers, which was proposed to be correlated with involvement of EMT and tumor metastasis. Hence, this study sets up to investigate epigenetic changes and EMT markers in HPV cancer biology and identify whether EZH2 inhibitors (EPZ6438 and DZNep) can be effective in inducing mesenchymal epithelial transition and whether this effect could be associated with HPV infection. Research methods currently involve evaluating EZH2 drug toxicity using cell proliferation assay on HPV-positive and HPV-negative cervical cancer cell lines. Further plan is to investigate molecular mechanisms from EZH2 inhibitor treatment relating to EMT process using immunocytochemical staining, flow cytometry analysis and western blotting techniques. These results will be further verified using a 3D in vitro model.

2. Author/s: Alexander Korotkov

Title: Design of virtual reality to prepare people with special needs for common life situations
Department: Computer Science

Abstract

The Department of Education have initialised a special curriculum for students with special needs. In this project it will include people with autism spectrum disorder (Autism) between the ages of 8 and 17 described as "Students with special needs". The curriculum has 4 sections: Employment, Independent Living, Community Incursion and Health. For these purposes the specific virtual reality (VR) prototype was developed to cover the requirements of the "Employment" section. It has two locations representing workspace areas: supermarket and caffé. Due to diverse nature of mentioned disability, it requires certain precautions which are very problematic to implement since it is generally assumed that each case of Autism is unique for each individual and can cause different stimuli reactions which could cause discomfort, panic etc. Therefore, the feedback was required to develop further and narrow down the focus of the VR environment's features. The investigation was conducted in the form of interviews with teachers who are responsible for over 100 students with different types of Autism in school for people with special needs. The obtained results have increased the understanding of features required for development of the VR application for people with special needs and potential issues in its current state as well as its viability in teaching the students with special needs.

3. Author/s: Fasila Pallinalakam, Hemda Garelick and Dirk Wildeboer

Title: Developing a professional platform in support of Medical Technologists in the United Arab Emirates and creating a Toolbox for Educators
Department: HSCE MProf/DProf

Background/Introduction:

The United Arab Emirates (UAE) is a fairly new independent country, existing for only fifty years, made up of seven emirates. Within the healthcare industry of the UAE, Medical Technologists play a vital role. The functions of a Medical Technologist are very important as they perform a full range of laboratory tests, and it is estimated that approximately 60-70% of medical decisions are based on these laboratory results¹. In addition, it is predicted that the employment of Medical Technologists is projected to grow by seven percent between 2019 and 2029, faster than the average of most occupations². Currently there is no association or professional body for Medical Technologists to join or become members of in the UAE that will help support their career growth or where they can go to seek advice.

Value of my Research Plan to Key Stakeholders:

The main stakeholders for my research would be the Medical Technologists at Cleveland Clinic Abu Dhabi (CCAD). As our Technologists are one of the key players in our hospital helping to diagnose disease, it is vital that they are supported and that we do what we can to support and develop them further. This research could potentially influence policies and procedures currently pertaining to Medical Technologists within the UAE.

Aims:

The main aim of this research is to provide a comprehensive support system/framework to the profession and the professional which will include the establishment of a professional association body.

Another aim of this research programme is to develop a skills programme with internationally recognized skills and to create a tool box which aligns with the agenda of WorldSkills – providing Educators the tools to improve standards that are currently available for training and coaching Medical Technologists.

Methodology:

The research will consist of mixed methods - both qualitative and quantitative research in order to explore and gather meaningful insights about what Medical Technologists feel is lacking or what they will be benefitting from in terms of resources. Elements of action research will be used in the implementation and assessment of the programme.

4. Author/s: Maria Chifa, Gemma Reynolds and Fabia Franco

Title: The impact of home musical activities on language development in infants born prematurely
Department: Psychology

Introduction

Fast-growing evidence supports that both formal and informal musical activities positively impact infants' and children's language development. Although infants born prematurely are at risk for language delays and impairments, little research has been conducted to elucidate whether this positive relationship extends to preterm infants. Aiming to provide new tools for research-based practice and RCT intervention studies, the present research investigated the influence of the home musical environment on early language development in premature babies.

Method

Informal early musical experience (including parental singing) was measured by the Music@Home questionnaire (Politimou et al., 2018), while controlling for general enrichment at home (STIM-Q, Dreyer et al., 1996) as well as perinatal stress and PTSD (PPQ) (Callahan et al., 2006), and language development was measured by the CDI-UK 'Words & Gestures'. The sample comprised n=145 infants aged 8 to 18 months (corrected age), including a sub-sample of n=28 infants with suspected or identified areas of difficulty or neurological conditions. Post-hoc sensitivity power analyses showed that the sample size afforded sufficient power to detect reliable results. The main caregiver completed the self-reports online via Qualtrics. Data were analysed using correlational methods, multiple regression with backward elimination and ANOVA.

Results

As hypothesised, results showed that the home musical environment significantly predicted infants' early language, independently from general enrichment (STIM-Q) and perinatal stress (PPQ), and across infants' corrected age range. In particular, higher Music@Home scores were associated with significantly superior outcomes in infants' Gestures and Word Comprehension. Additionally, gestural communication was predicted by infants' gestational age. Importantly, even in the group with suspected/diagnosed disability, home musical activities facilitated language development.

Conclusions

These findings constitute the first demonstration that an enriched musical environment can enhance early development of communication skills in a population at risk for language delays, namely infants born prematurely, opening the path for future intervention research and offering new parenting tools to families of preterm infants. The participants in this study were representative of high SES, highly educated caregivers, hence it is of paramount importance that future research specifically focus on lower SES, less educated families.

5. Author/s: Herbert Mwebe	Title: A qualitative discussion with Mental Health Nurses (MHNs) exploring views of their role and experience of undertaking cardiometabolic risk monitoring in inpatient mental health settings Department: HSCE MProf/DProf
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Aims and objectives: To explore MHNs' views of their role in the screening and monitoring of cardiometabolic risk in individuals with Severe mental illness (SMI) in an inpatient setting.
Background: Current research that people with SMI disproportionately experience and die early from physical health conditions, e.g., CVD. MHNs are best placed as front-line workers to offer screening, monitoring interventions; however, their views on their role and experience undertaking cardiometabolic risk care are not studied often
Design: Qualitative exploratory study.

Methods: The study was carried out in an NHS mental health site in England. Purposive sampling was adopted for the study with a total target sample of (n=95) nurses from ten inpatient wards. Semi-structured interviews were conducted with (n=20) registered MHNs who consented to take part in the study. Inductive data analysis and theme development were guided by a thematic analytic framework.

Results: Participants shared a clear commitment of their role regarding cardiometabolic risk screening and monitoring in their work settings. Examples of themes identified included (1) Cardiometabolic Risk Monitoring Recording Practices (2) MHNs' Medication Management Activities (3) MHNs' Physical Care, Knowledge, Skills, and Confidence (4) MHNs Attitudes and Views of Their Role on Physical Care Monitoring (5) Professional development needs.
Conclusions: Nurses were unequivocal in their resolve to ensure good standard physical health monitoring and screening interventions in practice. However, identified obstacles

have to be addressed to ensure that physical health screening and monitoring is integrated adequately in everyday clinical activities. Achieving this would require improvements in nurses' training, and an integrated multi-service and team-working approach.

Relevance to clinical practice: Attending to the physical health needs of people with SMI is associated with multiple improvements in both mental and physical health; nurses have a vital role to play in identifying and addressing causes of poor physical health to improve health outcomes in this patient population.

6. Author/s: Megan Karnes

Title: Equity and improvements in health and wellbeing: Impact of environmental health interventions on wellbeing of people with hoarding behaviour (PwHB)
Department: HSCE MProf/DProf

According to research, only 5% of PwHB receive help. Research carried out by Kings College London evidences a lack of clear referral pathways and a service gap which results in both professional and PwHB frustration in social care. Recent research by University of East Anglia further explores unqualified housing professionals carrying out work that is detrimental to both them and the PwHB they are trying to support.

Characterised on the Obsessive-Compulsive Disorder Spectrum as people experiencing overwhelming distress when trying to throw items away, Hoarding Disorder is now a clinically recognised mental health disorder that is caused by a range of issues including trauma, anxiety fuelled compulsive acquisition, which result in self-neglect (both intentional/unintentional) due to the person living in unsafe environments and, in extreme cases, completely uninhabitable homes. 75% of people experience comorbid psychological issues and over 50% have physical health problems.

With the passage of the Care Act, 2014 (CA14), Environmental Health services (EHS) joined the broad list statutory organisations required to put wellbeing, choice and control at the heart of any engagement. Conflicting aims and legislative requirements of risk management, coaction between services have not been regularly working to realise either safety or wellbeing goals. The main aim of this study is to understand impact of enforcement actions carried out by EHS and those they commission to carry these interventions out on the wellbeing of PwHB. Additionally, it will explore professionals experience of these processes.

This project will be a multi-strategy quantitative and qualitative piece of action research based on a critical discourse analysis model. The basis for this is that it allows triangulation of understanding the interrelationality of the data facilitating broader, more resonant, understanding via the ability of one aspect to inform the other, as well as to identify paradox and contradiction.

This project aims to suggest a model of engagement within EHS which would meet requirements of the CA14 in relation to service delivery in a model that, alongside reducing risk, would give parity to wellbeing. Additionally, it would work to clarify EHS roles within the interagency working required to appropriately support complex engagement.

7. Author/s: Geili Elsanousi, Tuan Le, Huan Nguyen and Xin-She Yang

Title: The Road Map to Smartwave Using Digital Twin
Department: Design, Engineering and Mathematics

Artificial intelligence (AI) applications in wireless communications have produced a mutual boost on both technologies. Wireless communication systems earned massive performance enhancements by optimising sharing and reuse of resources, e.g., edge caching in 6G. The AI applications gained enhanced connectivity layers, e.g., connectivity of the internet of everything (IoE). One area that is still immature is AI applications in propagation environments. The wireless communication theory still faces a bottleneck in the propagation domain because of the uncertainty and the continuous-time changes in propagation channels. These changes are influenced by natural causes uncontrollable by man and are faster than the usual than man-made devices. A breakthrough was recently introduced in the software-defined metasurfaces (SDM), which enabled control of radio waves while they propagated through the channel. This concept implies the ability to dynamically adapt to changes in the propagation channel. From there developed, the concept of smart radio environments (SRE), which combined AI and SDM technologies to optimise the performance of propagating waves. HOWEVER, the SRE vision lacks two features: the inclusion of other parts of the non-SDM parts of the propagation environment in the decision making and the two-way feedback, which characterises the twinning in the digital twin (DT) artificial intelligence. In this proposal, the physical twin includes blocks from the transmitter and receiver streams, the smart antenna interface with beamforming controls, a knowledge database combining the physical properties of the propagation environment, several channel modelling algorithms, and the cyber-physical interface by which the digital twin acquires feedback from these components and communicate controls to them. This physical twin is integrated with a virtual reality that models all these in a corresponding digital twin connected to the physical twin via two-way feedback. The DT goal functions optimise the propagation environment responses and the wave propagation choices for several wireless applications.

8. Author/s: Luke Hands

Title: Leading and managing change in the mental health of the construction industry.
Department: HSCE MProf/DProf

Investigating the role of individual, group and project level resilience to improve mental health in Construction.

The overarching research question being asked; Are there existing tools or support approaches to improve personal, group and project resilience and mental health/wellbeing that can be transferred and operated effectively within the construction community? The research aim is to establish how to improve risk awareness and determine realistic reduction measures which can successfully combat the issue for all stakeholders affected. The objective is not to just inform and corroborate the mental health crisis within the construction industry but to establish measures that can be implemented to reduce the risk and re-evaluate the risk to work towards an acceptable level.

"We truly hope this research, although only in its infancy, can make a difference not only for Henry Construction but possibly for the entire construction industry. Work-related stress is the leading cause of work absence but is rarely reported. The uncertainty that comes with limited-term contracts, long hours and lengthy commutes, as well as isolation due to time away from family on unfamiliar and temporary worksites, are all frequently mentioned reasons for poor mental health." Luke Hands - Director of Health, Safety, Environmental & Quality

So far the research has illustrated that physical group activities, such as football and rugby, while undertaken as a team, have significant positive outcomes. This calls for collective planning and decision-making when designing and delivering mental health interventions at the workplace.

Henry Construction are currently expanding the number of Mental Fitness Coaches (Formerly Mental health First Aiders) to assist with the research data collection. This also includes teaming up with some of their supply-chain partners who will be providing access to their own Mental Health First Aiders in order to acquire the data need for the research. "We feel the topic needs an industry-wide holistic approach in addressing mental health and wellbeing in the workplace" Luke Hands

The research plan proposes to disseminate the full results in early 2023.

9. Author/s: Aaisha Al Shehhi, Penny Duquenoy and Gordon Weller

Title: Development of user orientation toward digital culture within a national government strategy; a case study of UAE e-government
Department: HSCE MProf/DProf

In 2010 the United Arab Emirates set the e-government service strategy leading to the Smart government initiative in May 2013 and Artificial Intelligence in 2017. The strategy consists of seven enablers to aid end-user acceptance of e-government services. This research project aims to find the obstacles faced by the United Arab Emirates (UAE) federal governmental organisations in implementing e-government indicators of service usage, satisfaction and users' awareness. The objective is to increase user uptake and satisfaction with high-quality e-services to the intended communities.

To understand the perceptions of users regarding the services provided and their effects in implementing the enablers of e-government, the UAE e-government is targeted to be the case study for this research. The research question is: 'How do UAE e-government enabler strategies affect acceptance of e-government by the end-users?'

The project investigated the current operations of e-government practices and assessed their needs in the UAE and followed two lines of enquiry: (i) identify end-user perceptions of the UAE enablers (ii) investigate the effect of UAE e-government enablers' formulation to end-user acceptance. The simultaneous triangulation mixed method is used. Qualitative and quantitative methods are used parallelly, plus relevant documentation. Data was collected by multi-types of interviews as follows: Focus interviews with members of UAE federal governmental organisations, Pioneers of Digital Transformation team and e-service developer team; Semi-structured interviews with participants from the governmental organisations service providers and participants from their end-users; individual narrative interviews with two of the UAE Smart government enablers' team.

This practice-oriented study may propose several recommendations to improve and enhance e-governmental services to incorporate understanding of user needs and views. The current data analysis indicates that end users' demographic variables and some of the internal procedures could affect the use of e-government services in the UAE. Therefore, this study will help the government to focus on the types of end users and reform their e-government criteria to fit with end users' perceptions and provide agility and sustainable services.

The research is significantly important and this became obvious during the last two years of the covid-19 pandemic, where most of our communications became supported remotely.

10. Author/s: Andrew Sumani

Title: Towards a theological pedagogy of hospitality in Malawi
Department: Education

Introduction

The thesis comprises seven chapters (not mentioned in the reviewed abstract due to word limit). Apparently, there are no initial findings to share. The poster presentation is basically an illustration of the potential of the study. Nevertheless, I have done the elaborated thesis outline which gives a road map of the thesis. I have also submitted an application to the Ethics Committee before embarking on empirical research.

Aim of the study

The study aims at exploring the relevance of the motif of 'hospitality' as a pedagogical motif in Christian higher education in Malawi. I will take an interdisciplinary conceptual approach proposed by Davina Soh, (2016) to construe the relevance of the motif of hospitality in teaching and learning. Because of the interdisciplinary approach, the definition of the term "hospitality" will follow a cluster concept other than a single definition.

Research methods planned

The study will be addressed by literature and empirical research done through qualitative methods of interviews and a case study of a faculty of Theology for the Lake Malawi Anglican University. The data collection and analysis will be done simultaneously by using a thematic approach, and its credibility, relevance, and internal validity verified by triangulation and the involvement of the participants throughout the analysis process.

Expected findings and contribution

By the end of this study, among others, I expect to have discovered the relevance of the motif of 'hospitality' as a pedagogical motif in theological education in Malawi. The study will contribute to academia an increased awareness among Malawian theological educators concerning the viable role the motif of hospitality can play in enhancing teaching and learning, and a changed- environment of teaching and learning in theological institutions, particularly in Malawi. The attained knowledge from the study will lead to improved and effective teaching practices in teaching and learning.

11. Author/s: Irena Ceko Marko, Kate Maguire, Elda Nikolou-Walker, Carmel Clancy and Betsy Thom

Title: An Autoethnographic Exploration of Addiction in Albania: a country in transition
Department: MProf/DProf TD

• Introduction to provide a rationale for the study

The history of addiction in Albania is very complex, impacted by emerging perspectives from international institutions and national medical institutions, against the backdrop of a country in transition from communism to democracy. As a citizen of Albania, I have lived through all of these changes, sometimes with active insight, and sometimes without being conscious of such change until the moment of impact. During these years of growth and maturity, the biggest and greatest invisible change was the evolution of women in health care careers with a predominance of women in the health system. All of these changes have had an effect on me as an individual influencing my ultimate choice of a career pathway.

• Aim of your research

The history of addiction in Albania is unique, because the country was not recognized for drug addiction prior to the 1990s. Following the political changes, people were exposed to drugs, which had an incidence and prevalence in general population. The health-care system had to adapt to this new requirement. Across all of these changes the addictology services have faced the greatest challenges, particularly when compared to addiction

services available in other countries. My journey in the field of health as a female runs parallel to this story.

- Research methods used or planned
Autoethnography, personal narrative+

- Current or expected findings and contribution

This study critically explores my personal and professional insights as addictions' doctor. I examine the disease and its scientific definition, as a social problem compounded by the lack of information in the early 1990s, right up to the recognition of addictions as a disorder in the Albanian health system.

In addition, my research examines the acceptance of the condition, as a concomitant disease by society, and the impact it has on the life of the individual, their family, and wider networks.

12. Author/s: Obinna Iwuchukwu

Title: Rethinking Construction Waste Management Practices:
A Case for Integrating Sustainable Environmental
Management and Circular Economy Model
Department: HSCE MProf/DProf

Construction and demolition waste contributes about 40% of total solid waste generated in the United States. This waste stream receives limited attention despite the associated environmental and human health risks from disposing C and D waste in landfill. In the last six years, the construction boom in the research focus area of Nashville, USA has resulted in increased and disproportionate generation of construction and demolition waste.

The common and unsustainable practice of landfilling C and D waste comes at a significant cost to the environment and public health. A Nashville based C and D waste operator and its employees' practices will be investigated and potentially the identified gaps addressed using circular economy and sustainable environmental management.

The aim of this research is to investigate the drivers of the unsustainable and environmentally intrusive practices in construction and demolition waste management from a practitioner researcher's prism and to explore opportunities to initiate organizational change using action research and efficient sustainable practices.

The mixed method will be used, and it would incorporate both quantitative and qualitative methods. Questionnaires will be distributed and interviews conducted amongst participants and key decision makers. Also, the CDD-Path model will be used for C and D waste data gathering and collection. A staged approach will be used to explore the proposed organizational change model ADKAR. ADKAR will be compared to another change model.

The collated data will be statistically analyzed.

The expectation is that the research findings will provide informed insights to address employees C and D waste practices and challenges, tailored solutions for reducing and diverting C and D waste from landfill as well as more efficient strategies for managing C and D waste. This research is expected to positively impact and accelerate change in employees' practices as well as help scale up circularity. Also, it is expected that the outcomes will contribute to body of knowledge in sustainable waste management. Ethical considerations include obtaining informed consent of research participants and seeking ethics approval. The participants will be treated with respect. Opinions will be not penalized but will be valued.

13. Author/s:
Stephen Egahi-Ojo Agada

Title: Ushering the Virtual Age: Understanding the factors which influence the adoption of Virtual Reality Shopping Applications Among Generation Y and Generation Z.
Department: Computer Science

Introduction

The application of immersive technologies has shown great potential in the e-commerce industry in recent years. As consumers continuously search for new but personalized shopping experience, businesses have learned to create value in the consumer's experience process by introducing different forms of immersive technologies into their business process, with Virtual Reality (VR) and Augmented Reality (AR) been the most frequently used in designing the customers experience journey. While we have seen the application of VR technologies in various industries, the practical application of immersive technologies in the e-commerce industry in recent years are more 'augmented than virtual', even with statistic showing that 70% of customers aged 19–40 are very interested in virtual reality technologies. There is a lack of research as to this phenomenon, especially within the age range listed above, which fall into the age classification of Generation Y and Generation Z, arguably today's largest consumers of information technology product and services.

Aim

Keeping this in mind, this research aims to investigate what factors influences the rollout and adoption of VRSA by e-businesses and online shoppers within the generational age range of Y and Z.

Research Method

This study would be carried out as mixed study consisting of Both case studies and action research. Primary data would be obtained for this research through Interviews and Questionnaires. Interviews would be used to gather data from e-businesses, to investigate the factors which might influences the willingness of e-business to utilize/deploy VRSA. Questionnaires would be issued for data collection to e-consumers to investigate the factors which influences users' intention to utilize VRSA from the user experience perspective, after a series of VRSA pilot testing.

Expected Findings and Contributions

At the end of this study, a conceptual model which explains VRSA adoption criterial for GEN Y and Z at a deeper level is expected, alongside a working prototype of what a VRSA should involve and look like, to aid User adoption. It is expected that this research's result would prove that the adoption of VRSA among Gen Y and Z is centred around the perception of consumer's towards VRSA and the perception of e-businesses (retailers) towards VRSA. It is hoped that a relationship between certain business factors, certain technological factors, certain social factors, certain behavioural factors and e-consumer's alongside e-business perception of VRSA, can be established.

Day 2 23.6.22 Paper Oral Presentations

Day 2 Papers A1 10:15 – 11:35

Chair: Andrea Cossu

Judge: Suman Lodh

1. Paper A1 10:15 - 10:35

Author/s: Angela Sorensen

Title: Impact of load on weightlifting variables during the performance of the clean

Department: Sports Science

2. Paper A1 10:35 - 10:55

Author/s: Tony Meehan

Title: An exploration of parents' perception of Pupil Referral Units in the development of parent voice and authentic, productive and lasting partnerships.

Department: HSCE MProf/DProf

3. Paper A1 10:55 - 11:15

Author/s: Tija Hubej, Rhonda Cohen and Anne Elliott

Title: A Mixed Methods Investigation in Physical Activity in Carers for those with Dementia

Department: Sports Science

4. Paper A1 11:15 - 11:35

Day 2 Papers A2 10:15 – 11:35

Chair: Diane Purchase

Judge: Sandra Appiah

1. Paper A2 10:15 - 10:35

Author/s: Daniela Paternina Martinez, Scott J. Roberts and Helen C. Roberts

Title: Migratory bodies express markers of tumour initiating cells and may represent an early stage of osteosarcoma sarcosphere initiation and metastasis

Department: Natural Science

2. Paper A2 10:35 - 10:55

Author/s: Kazal Kadr

Title: Symmetric powers and Exterior powers for elementary abelian p -groups

Department: Design, Engineering and Mathematics

3. Paper A2 10:55 - 11:15

Author/s: Silviu Marc

Title: Hyper Parameters Optimization of Convolutional Neural Networks using a Genetic Algorithm

Department: Computer Science

4. Paper A2 11:15 - 11:35

Author/s: Shyam Chavda, Anthony Turner, Paul Comfort and Jason Lake

Title: Planning for Success: Developing a predictive model of Olympic performance zones for weightlifting.

Department: Sports Science

Day 2 Papers A3 10:15 – 11:35**Chair:** Vida Midgelow**Judge:** Christa Sathish**1. Paper A3 10:15 - 10:35****Author/s:** Gani Daoussa Debby**Title:** Social connections and workplace promotion: An investigation of employees' experiences of ethnic ties and justice perceptions within the multi-ethnic Chadian PSOs**Department:** MLO - Management Leadership and Organisation**2. Paper A3 10:35 - 10:55****Author/s:** Manuela Maiguashca**Title:** Documentary Filmmaking as an Ethical Process Practice**Department:** Education**3. Paper A3 10:55 - 11:15****Author/s:** Sharon Reshef-Armon**Title:** I'm not a robot: how can creative processes raise awareness of the relations between humans and media?**Department:** Media and Performing Arts**4. Paper A3 11:15 - 11:35****Author/s:** Emma Tullett**Title:** An existential formulation of therapeutic experiences in nature and the role they play in posttraumatic growth**Department:** HSCE MProf/DProf**Day 2 Papers B1 11:45 – 13:05****Chair:** Diane Purchase**Judge:** Alejandra Gonzalez Baez**1. Paper B1 11:45 - 12:05****Author/s:** Joseph Omisanya, Richard Bayford, Song Wen and Rebecca Yerworth**Title:** Regional Ventilation Distribution in Premature Neonatal Patients with Apnoea using EIT Measurement**Department:** Natural Science**2. Paper B1 12:05 - 12:25****Author/s:** Duncan Allardyce, Erika Loizidou and Ajit Shah**Title:** Structure-activity relationship of Argyrin analogues at the proteasome**Department:** Natural Science**3. Paper B1 12:25 – 12:45****Author/s:** Janice S. Pereira, Dr Scott J. Roberts and Dr Helen C. Roberts**Title:** ATR inhibition increases sensitivity of a highly aggressive osteosarcoma cell line to cisplatin treatment**Department:** Natural Science**4. Paper B1 12:45 - 13:05****Author/s:** Paul Jarvis, Anthony Turner, Paul Read and Chris Bishop**Title:** Reactive Strength Index and its Associations with Measures of Physical and Sports Performance: A Systematic Review with Meta-Analysis**Department:** Sports Science

Day 2 Papers B2 11:45 – 13:05**Chair:** Gabriel Sutton**Judge:** Aaron Lawson**1. Paper B2 11:45 - 12:05****Author/s:** Arzoo Hassan**Title:** Recognition Justice: The recognition of socially disadvantaged groups for inclusive policy making in the Flood Risk Management of England**Department:** Natural Science**2. Paper B2 12:05 - 12:25****Author/s:** Michael Cardoso**Title:** The exercising of leadership within church settings: A Baptist and Non-Denominational Church Case Study**Department:** MLO - Management Leadership and Organisation**3. Paper B2 12:25 – 12:45****Author/s:** M. Ugochinyere Nwachukwu**Title:** Pre and post convent life and the impact of the community on some Rev Sisters who disaffiliate or defect willingly and unwillingly from the convent**Department:** Psychology**4. Paper B2 12:45 - 13:05****Author/s:** Ben Carter, Nimai Parmar and Nic James**Title:** On the Identification & Definition of Play Styles in the National Football League**Department:** Sports Science (recorded)**Day 2 Papers B3 11:45 – 13:05****Chair:** Angela Scollan**Judge:** Maxine Stephenson**1. Paper B3 11:45- 12:05****Author/s:** Annemiek Friebel**Title:** Walking with change: A first-person inquiry into the development of a post-human "frilufts"-life**Department:** DBA/DProf (Practice)**2. Paper B3 12:05 - 12:25****Author/s:** Jwaad Hussain**Title:** A robot assistant for music therapy sessions**Department:** Design, Engineering and Mathematics**3. Paper B3 12:25 – 12:45****Author/s:** Uchenna Nnawuchi, Carlisle George and Florian Kammueler**Title:** Conceptualisation of the right to explanation in the context of machine learning**Department:** Computer Science**4. Paper B3 12:45 - 13:05**

Day 2 Papers B4 11:45 – 13:05**Chair:** Anne Elliott**Judge:** Anthony Mangiacotti**1. Paper B4 11:45- 12:05****Author/s:** Stella Duffy**Title:** An existential phenomenological exploration into the embodied experience of postmenopause.**Department:** HSCE MProf/DProf**2. Paper B4 12:05 - 12:25****Author/s:** Rina Kakad**Title:** The experience of love in romantic relationships**Department:** Psychology**3. Paper B4 12:25 – 12:45****Author/s:** Maryam Al-Abdulla**Title:** The Effects of Ageing and Processing on Perceptual and Conceptual Priming and Recognition**Department:** Psychology**4. Paper B4 12:45 - 13:05****Day 2 Papers B5 11:45 – 13:05****Chair:** Ruth Plume**Judge:** Dandan Han**1. Paper B5 11:45 - 12:05****Author/s:** Xiaojuan Zhang**Title:** Gamification for a Better Creative Community --Motivational Graphics in Interaction Design**Department:** Computer Science**2. Paper B5 12:05 - 12:25****Author/s:** Thanh Nguyen**Title:** Effects of Metacognitive Reading Strategy Instruction on L2 Reading Comprehension and Motivation: A Meta-Analysis and A Vietnamese Teaching Intervention**Department:** Education**3. Paper B5 12:25 – 12:45****Author/s:** Stephen Hall, Serengul Smith, Can Baskent and Clifford De Raffaele**Title:** Toward a Knowledge Management framework for Micro Enterprise**Department:** Computer Science**4. Paper B5 12:45 - 13:05****Author/s:** Pune Parsafar**Title:** Iranian Women Unveiled: A Documentary Study of Representation of Iranian Women in Cinema**Department:** Media and Performing Arts

Day 2 23.6.22 Poster Presentations

13:05-14:15

Chair/Organiser Gordon Weller

Judges: Leena Robertson, Huw Jones, Dandan Han, Elda Nikolou-Walker, Naomi House, Simon McCarthy

Day 2 Poster Presentations 13:05-14:15 Zoom		
1	Bassem Bataineh, Dirk Wildeboer, Ghada Elayat and Lucy Ghali	The Role Of HOXB13 Gene In The Wound Healing Process Department: Natural Science
2	Neha Nathaniel	Biosensor development for the detection of tau and Visinin-like protein 1 as an investigative device for monitoring Alzheimer's disease progression. Department: Natural Science
3	Carla Wood	Approach to Operational Risk Management of General Medical Devices in an Acute Hospital in England Department: HSCE MProf/DProf
4	Malcolm Bevan	The impact of floods on the professional wellbeing of emergency first responders (EFRs). Department: Natural Science
5	Katherine Paice, Laura Wilson, Christopher Curtis, Konstantinos Papadopoulos and Anthony Turner	Assessing the prevalence and risk of disordered eating in female netball players. Department: Sports Science (recorded)
6	Mohammad Emran Hashimydar and Dr Mahdi Aiash	Deep Learning based Intrusion Detection System for MQTT & AMQP IoT Protocols Department: Computer Science
7	Abimbola Ajiboye	The Validity and Enforcement of Electronic Signature in Arbitration Agreement: A Comparative Analysis between English law, Nigerian Law, and China Law. Department: Law
8	Tareq Aldlimi, Costas Priporas, Shing-Wan Chang and Franco Beschizza	“Don’t forget to hit that share button!” Explaining the roles of influencer, content, and audience in developing intention to share: a study of influencer marketing on Snapchat in Saudi Arabia. Department: Marketing
9	Omar Zammit, Serengul Smith, Clifford De Raffaele and David Windridge	A machine learning approach to building a collaborative recommender system based on users browsing data with the aim of supporting users' engagement on a specific subject. Department: Computer Science
10	Paul Oatt	Responding to the housing crisis and regulatory skills shortage: to meet the demand for local housing authorities and better regulatory enforcement. Department: Natural Science (recorded)
11	Jiaqing Xu, Anthony Turner and Chris Bishop	A Systematic Review of the Different Calculation Methods for Measuring Jump Height During the Countermovement and Drop Jump Tests Department: Sports Science Department: Sports Science
12	Cephas Mpungu	Enforcing Digital Forensics Readiness in Wireless Medical Networks Using Artificial Intelligence. Department: Computer Science
13	Vijay Simha Reddy Chennareddy	Extracting the Information from Legal Documents by using CNNs & BERT-Based model Department: Computer Science

Day 2 23.6.22 Abstracts for Papers

Day 2 Paper A1 10:15 – 11:35

1. Paper A1 10:15 - 10:35	Title: Impact of load on weightlifting variables during the performance of the clean Author/s: Angela Sorensen Department: Sports Science
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To examine impact of load on kinetic and kinematic weightlifting variables assessed during the clean and determine their suitability in weightlifting performance programming.

Ten proficient weightlifters performed 3 sets of single repetition cleans with loads beginning at 50% of their one-repetition maximum (1RM) and each subsequent load was increased by 10% up to 90% of 1RM. Force-time data was collected via dual force plates with displacement-time data collected via 3-dimensional motion capture. Eleven reliable kinetic and kinematic variables determined from previous research were extracted for analysis. Reliability was determined using intraclass correlation coefficients (ICC) and coefficient of variation (CV). Repeated measures analysis of variance was used to determine any significant differences across different loads. Hedges' *g* was used to determine effect size.

All variables were found to be reliable (lower bound ICC ≥ 0.750 and CV $\leq 10\%$) across all loading conditions. Two variables (W1 average vGRF, average power from lift off to most rear) showed no significant differences between loads ($p = 0.451$ and 0.088, respectively) with trivial to small effect sizes across all loads. W1 vertical impulse was only significantly different between loads of 50% and 80% ($p = 0.047$). W1 average resultant force and average power from UW to PBH were significantly different between all loads, both reporting $p = 0.000$. Small to moderate effect sizes were seen in most variables comparing loads of 50, 60, and 70% and moderate to large effect sizes comparing loads of 50, 80, and 90%.

Any load from 50-90% could be utilized in training when monitoring W1 average resultant force and average power from unweighting to peak bar height as these showed most variance between loads. All other variables showed no significant differences between some loads where most notably 5 of 11 variables showed no differences between 70% and 80% loads, which seems to suggest those loads could be used interchangeably in training. The greatest effect sizes were seen when comparing 50, 80, and 90% which may indicate working at higher intensities would have a greater performance impact. Further research is needed to determine sensitivity to changes in force and power.

2. Paper A1 10:35 - 10:55	Title: An exploration of parents' perception of Pupil Referral Units in the development of parent voice and authentic, productive and lasting partnerships. Author/s: Tony Meehan Department: HSCE MProf/DProf
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Pupil Referral Units (PRUs) are schools in the UK introduced under the 1993 Education Act, mainly for pupils excluded from mainstream schools. Research has shown that disproportionately, pupils of minority ethnic background are more likely to attend PRUs. It has also consistently been mostly vulnerable pupils, those at risk of poverty or neglect, or those that have a learning difficulty, mental health condition or low attainment, that are more likely to be excluded and attend a PRU (Timpson, 2019).

Educational attainment in PRUs is significantly lower than in mainstream schools and PRUs are repeatedly denigrated in the media as a causal link in pupils' involvement in criminal activity (Timpson, 2019). Reintegration back into mainstream schools is problematic and parents often feel they have no choice but to accept their child's placement at a PRU following exclusion. It is widely considered that there is a stigma attached to attending PRUs and several DfE reports have acknowledged their "peripheral" position in the education system. Efforts to present PRUs in a more positive light have largely been unsuccessful.

I am exploring this problem as an insider-researcher having been head of a PRU for nine years and witnessed transformational work with pupils and their families. It is widely recognised that undiagnosed SENDs are more likely to be recognised in PRUs. Success is built on authentic home-school alliances and supporting parents in navigating the education system into further education or employment.

I argue that it is the more trusting relationships where PRUs can advocate on behalf of and act as a support network for the family that can change the perception of PRUs. This demands a reframing of PRUs as integral to the education system and can help remove the stigma.

For this ethnographic study I used semi-structured interviews with parents of excluded pupils, heads of local authority family support services and headteachers of a PRU and of a mainstream school, and a focus group discussion with PRU staff to gather data.

My presentations will be based on initial analysis of my findings and contribution to practice.

3. Paper A1 10:55 - 11:15

Author/s: Tija Hubej,
Rhonda Cohen and Anne
Elliott

Title: A Mixed Methods Investigation in Physical Activity in

Carers for those with Dementia

Department: Sports Science

Informal carers, such as spouses, partners or offspring play a crucial role in supporting family members living with dementia. People with dementia require high levels of care and the burden informal carers face is well documented (Campbell et al., 2008; Cassie et al., 2008; McCabe et al., 2016).

In order to combat the negative effects of care on carers' health and well-being, existing "interventions have focused on care-related stressors and mental health outcomes" (Farran et al., 2008, pp 2). However, relatively few studies have looked at appropriate physical activity (PA) interventions for this population, even though the benefits of regular PA are well known (Farran et al., 2016). There is a lack of research in understanding perceptions of PA in caregivers for people with dementia, as well as understanding specific challenges, attitudes and needs different groups of carers, such as spouses and offspring have in order to become more active (Greenwood et al., 2019; Tatangelo et al., 2018). Therefore, this PhD aims to explore approaches to increase PA adherence and improve well-being of informal carers of people with dementia.

Study 1 has identified important differences between groups of informal carers of those with dementia and their perceptions of PA, as well as barriers preventing them to become more active using narrative inquiry to investigate.

After analysing the stories, four major themes emerged from the narrations: 'Physical activity and Well-being', 'Sacrificing time', 'Changes in Help' and 'Plans For Future'. Considering the accumulation of the underlying social, behavioral, and biological processes that drove the impact of the life course on carers' health, findings suggest that there are three different groups of carers: partners 70+ years old, partners 60+ years old and offspring 50+ years old.

Study 2, explored whether findings from Study 1 could be applied to a larger population of

informal carers of people with dementia. The results suggest significant differences between the three groups of informal carers and their perceptions of exercise and care. Study 3 will take a cross-cultural approach and explore whether there are differences between the three groups of informal carers living in the UK and Slovenia.

Day 2 Paper A2 10:15 – 11:35

1. Paper A2 10:15 - 10:35

Author/s: Daniela Paternina Martinez, Scott J. Roberts and Helen C. Roberts

Title: Migratory bodies express markers of tumour initiating cells and may represent an early stage of osteosarcoma sarcosphere initiation and metastasis

Department: Natural Science

Osteosarcoma is a primary malignant tumour of bone. Survival rate in osteosarcoma improved considerably (20% to 60%) from early 1970s to 1980s with the introduction of effective multiagent chemotherapy. Unfortunately, this figure has reached a plateau over the past few decades, partly due to a paucity of research into the metastatic mechanisms involved in tumour initiation and metastasis, as well as the lack of new effective treatments. Metastatic disease is one of the major factors affecting prognosis, as seen by the dramatic decline in overall survival of patients who present metastasis 20% to 30% compared to up to 80% observed in nonmetastatic patients.

Preliminary data from our group has shown that migratory body formation can be modulated by co-culturing osteosarcoma cells with bone-marrow derived mesenchymal stem cells. We hypothesise that these migratory bodies are early sarcospheres or sarcosphere precursors. Osteosarcoma cell lines; MG-63 and HOS-143B were used to develop a sphere formation assay to study the formation of migratory bodies under normal monolayer culture conditions, with additional supplementation of the medium with sarcosphere promoting growth factors; epidermal growth factor (EGF) and fibroblast growth factor (FGF). Osteosarcoma cells cultured under specific conditions form migratory bodies with increased numbers of spheroids per field of view observed at a concentration of 20ng/ml of FGF and 40ng/ml EGF; MG-63 (increase $p \leq 0.01$) and HOS-143B (increase $p = 0.11$). These migratory bodies can be enzymatically dispersed and regrown in monolayer culture. Additionally, RT-qPCR data showed an upregulated gene expression of stemness markers Oct3/4 (10-fold increase $p \leq 0.01$) and Nanog (8-fold increase $p \leq 0.01$) in the migratory bodies found in suspension compared to adherent monolayer cells, in the highly metastatic cell line HOS143B. Thus, the modulated response with the addition of EGF and FGF in combination with an increase in the gene expression signature of stemness markers are indicative that these migratory bodies contain tumour initiating (cancer stem) cells (TICs). This is also supportive of our hypothesis that these migratory bodies are indeed a precursor to sarcospheres, and potentially mimic the metastatic process. In conclusion, these data support the existence of a subpopulation of TICs in osteosarcoma.

2. Paper A2 10:35 - 10:55

Author/s: Kazal Kadr

Title: Symmetric powers and Exterior powers for elementary abelian p-groups

Department: Design, Engineering and Mathematics

Introduction

My motivation for the research is to develop my previous work which is about algebra, for example decompositions of modules. My experience based on pure mathematics.

In addition I want to teach this module in back home university, as an area in pure math which is important for student to learn and doing research on it, which is no one that expertise on that field.

Let F be an algebraically closed field of characteristic p . Let $q = p^n$ and let F_q be the field with q elements. As an additive group, $G = F_q$ is elementary abelian, isomorphic to $(C_p)^n$.

In this report we define the modules of the form $V_i = S^{i-1}(V_2)^*$, over a field of characteristic p , here V_2 is a 2-dimensional natural module for the elementary abelian group $(C_p)^n$, defined by 2 by 2 matrices.

Research question:

Our research aims is to answer the following three main questions.

1. A fundamental question is how to decompose $V_i \otimes V_j$, for all $i, j < q$.
2. What are the symmetric powers of $S^d(V_i)$, where $i, d < q$.
3. The final question- which could be our future plan- is that what are the exterior powers of $\Lambda^d(V_i)$, where $i, d < q$.

We conjecture that a tensor product of $V_2 \otimes V_i = V_{i+1} \oplus V_{i-1}$, whenever i is not divisible by p . Next we point out the difficulty to obtain restrictions of tilting modules. Different other relevant results are obtained such as conjecture 1, conjecture 2, and many examples are computed. We take GF(9) as an example, for $i, j < 6$. Then we applied these methods to other fields like GF (25) and GF (49). we used MAGMA software program as a tool for computations.

Importance of research?

The main impact of the research is to analyse how to find decompositions of tensor products $V_i \otimes V_j$, symmetric and exterior powers for representations of elementary abelian p -groups.

The goal in the future plan is working to solve conjecture 1 and 2. Another research objective is to find a formula for exterior power.

3. Paper A2 10:55 - 11:15	Title: Hyper Parameters Optimization of Convolutional Neural Networks using a Genetic Algorithm
Author/s: Silviu Marc	Department: Computer Science

In the last decade, technological advancements and the increased availability of data have boosted the use of machine learning (ML). An even more recent subfield of ML is deep learning (DL). The latter represents the use of artificial neural networks (ANN) to resolve very hard or even impossible problems for a human being. Applied DL requires the user to decide on hyperparameters such as the number of layers, learning rates, activation functions, etc. The values of these hyperparameters can be both continuous and discrete. Thus, it creates an almost infinite search space, making guessing the importance of these hyperparameters on the first attempt impossible. Hence, applied DL is a highly iterative process. In addition, hyperparameters optimization (HPO) can influence the generalization ability of an ANN. This problem is also known as overfitting. Some solutions to overfitting are collecting more data, regularising the data and data augmentation (DA). Methods for augmenting data have been widely employed in deep learning. The selection of proper data augmentation procedures is more significant than selecting a network structure. However,

due to a lack of essential study, data augmentation strategies have long stayed in the intuition and experience stage, and there is no one general decision strategy. This research aims to automate the hyperparameter optimization task so that a user can get satisfactory results in an inexpensive time frame. Initially, the experiment will be conducted using a genetic algorithm (GA) that imitates the natural selection process or evolution in searching for the optimal DA techniques. The GA chooses the best individuals from the present population to be parents and utilizes them to generate offspring for the next generation at each stage. The population “evolves” toward an optimal solution over successive generations. Based on the findings and performance of the initial experiment, the GA can be then extended to the HPO problem. The current research results are expected to solve DL-based medical software problems, where data can be scarce. At the same time, it can help any other industry reduce the cost of collecting data and improve the generalization ability of ANNs.

4. Paper A2 11:15 - 11:35

Author/s: Shyam Chavda, Anthony Turner, Paul Comfort and Jason Lake

Title: Planning for Success: Developing a predictive model of Olympic performance zones for weightlifting.

Department: Sports Science

The Olympics can be considered the pinnacle of sport competition. Forecasting to predict future performances can provide valuable information for the preparation of performance teams to enhance opportunities of success and future funding. The sport of Weightlifting had recently undergone a change in weight categories in advance of the 2020 Tokyo Olympics. Therefore, predicting outcomes of Weightlifting performance can be a challenging problem given these recent changes.

The objective of this investigation was two-fold; 1) to develop a set of predictive models for the newly contested weight categories across five Performance Zones (Medal Zone, 4-5th, 6-8th, 9-10th and 11-15th) for the Olympic Games, and 2) to test the efficacy of the models by comparing the predictions with the actual performances attained at the most recent Olympics. Performance Total (kg) data for the top 15 placing male athletes were obtained for the Olympics from the IWF website from 1998-2021. Mean \pm SD for total was calculated for across each old weight category. A second order polynomial regression was conducted with the newly contested bodyweights used as the intercept. Model validation was conducted using 5-fold cross validation with an 80/20% split for training and test data within MATLAB. Confidence and predictive intervals of 95% were calculated for all models. All model predictions were compared against the recent Tokyo 2020 Olympic outcomes, presented as percentage and absolute differences.

Results revealed that the models varied in their predictive ability for each Performance Zone, across each weight category for both women and men. On average the difference between the predictive point estimate and actual outcome was $4\pm3\%$ ($12.46\pm10.54\text{kg}$). The results suggest that the predictive models may be a good indicator of future performances within specific Performance Zones and weight categories. However, the standard deviations suggest that the predictive model may have greater efficacy in some weight categories and Performance Zones than others. The authors therefore suggest that weightlifting performance teams refer to the Performance Zone model of interest for their respective athlete's weight category when preparing for the next Olympics. Future research should consider a proof of concept in women's weightlifting and other weightlifting competitions.

Day 2 Paper A3 10:15 – 11:35

1. Paper A3 10:15 - 10:35

Author/s: Gani Daoussa Deby

Title: Social connections and workplace promotion: An investigation of employees' experiences of ethnic ties and justice perceptions within the multi-ethnic Chadian PSOs
Department: MLO - Management Leadership and Organisation

The use of social connections in hiring and promotions received ambivalent views. It is treated on the one hand as a valued source of social capital and, on the other hand, as nepotism, hence perceived as unjust, negatively impacting employees' work attitudes and behaviours. Nepotism is reported to be a pervasive phenomenon, particularly, within the Sub-Saharan Africa (SSA) workplaces and institutions, partly due to the cultural salience of social connections within the SSA context, predominantly along ethnic lines. The intrinsic role of ethnicity within indigenous African society stems from the fact that it is a source of identity and social security. However, the various uses and instrumentalizations of this extended ethnic-based kinship system in the postcolonial context classed it as nepotism and widely associated it with the ineffectiveness of reforms and poor performance of the PSOs.

Given the cultural embeddedness of social connections in SSA, this raises some questions regarding how employees in different cultural contexts experience and construct the role of social connections in hiring and promotions and the fairness of its uses. Based on semi-structured interviews conducted with employees working in selected Chadian PSOs, this study examines the interplay between the ways employees experience and construct the role of ethnic connections in promotions systems and the discursive frames they draw upon to make sense of their experiences and form their fairness perceptions.

Through a better understanding of the ways in which social connections are experienced and constructed by employees in a diverse workplace, this study contributes to tackling the issues of inequality of opportunities and exclusion. While these questions are generally addressed through the formal anti-discrimination and nepotism rules, inequality and exclusion remain by more subtle means such as social connections or networking. The findings intend to illuminate the blurred line between nepotism and networking, moving beyond the normative arguments to open up a door for more informed actions to tackle the issue of inequality of opportunities in a diverse society.

2. Paper A3 10:35 - 10:55

Author/s: Manuela Maiguashca

Title: Documentary Filmmaking as an Ethical Process Practice
Department: Education

Rationale

Conventional documentary practices too often focus on our subject's pain, asking them to shoulder the emotional burden of visibility in our media projects, extracting personal information through interviews, and often using trauma as plot points in the storytelling. My own early experiences as a documentary filmmaker exposed me to a process that is riddled with protocols that separate "us" (as makers) from "them" (those being documented) and that, all too often, conceives of those being documented as character templates in formulaic story lines, thereby denying those human beings visibility, complexity and agency. This can have a harmful effect on those documented, as well as those who are documenting.

Participants can feel misrepresented and alienated, while filmmakers can be caught off guard by the unintended consequences of their documentation. Over the last decade, I have explored different approaches to making documentaries and am currently working towards a PhD by Public Works in which I aim to interrogate my own process, as I ask myself: How can I ethically document others?

Aim

In this presentation, I will critically examine one documentary media project from my own practice. The aim is to break down the decisions I made, step by step, to explore what protocols and strategies resulted in negative experiences for both me and those I documented, and what practices enabled a positive and creative collaboration with participants.

Research methods used or planned

I am drawing inspiration from feminist thinkers (bell hooks, 1994 , Audre Lourde, 1984, Patricia Hill Collins, 2000, Le Guin, 1988) as well as contemporary feminist filmmakers and scholars who critique dominant paradigms of documentary media making (Alexandra Juhasz, 2021 Alisa Lebouw, 2021 Katerina Cizek, 2019), thinking with their ideas and 'storying' to help me describe, understand and critique my own documentary process, and to situate it in a wider dialogue about ethics and documentary filmmaking.

Current or expected findings and contribution

To critically 'story' out other ways of approaching documentary film – not just in terms of how it is constructed, but also in terms of what it promises to do in the world.

3. Paper A3 10:55 - 11:15

Author/s: Sharon Reshef-Armony

Title: I'm not a robot: how can creative processes raise

awareness of the relations between humans and media?

Department: Media and Performing Arts

Engaging in any creative thought and practical practices no doubt has an immense impact on practitioners' perception patterns. But when philosophical intentions are embodied in practice, the creative process becomes valuable and meaningful to practitioners and to potential collaborators and audiences. This paper unfolds processes developed through Practice as Research methodology. It depicts specific composition and narration strategies explored in the studio that have been reflected upon using critical theories. Such interrelated processes reveal artistic knowledge embodied in practical artistic modes. The research at hand is based on performance making, a practice titled ScreenStage Performance (SSP). It is a distinct approach to intermediality, integrating live performance with video projections. These are interrelated as a complex and meaningful hybrid. The epistemological base of this practice derives from Marshall McLuhan's view of technological media as extensions of humans, which develop the human sensorium (1964), Alva Noë's theory of perception as a complex process of observation and action (2004), and Viktor Shklovsky's dramaturgical 'enstrangement' device (1919), which is the base of similar strategies developed within SSP practice.

The paper will explain how the reflective research practices are used to observe the artistic practice and contribute to understanding it. The paper will present the practice's aims and strategies, which comprise inventive embodiment of media. It will argue that the practice activates perceptual processes and invokes awareness of human relations with technological media. Furthermore, it will show that such awareness is a result of the composition and narration strategies used in the creative processes of interacting live and virtual representations. Finally, it will argue that such creative processes tend to lead practitioners – students and artists – to a stronger sense of self-knowing, capability, and accountability, and can be an invitation to them in respect of their own creative action.

4. Paper A3 11:15 - 11:35

Author/s: Emma Tullett

Title: An existential formulation of therapeutic experiences in

nature and the role they play in posttraumatic growth

Department: HSCE MProf/DProf

Whilst there appears to be a commonly held assumption that time in nature is therapeutic, the healing value of experiences in nature is under-researched and remains on the margin of the fields of counselling psychology and psychotherapy. Focusing on the precise qualities of nature that are key to therapeutic outcomes, the present qualitative study shines a light on actual experiences in nature, how they are lived and experienced, and how people make sense of them as therapeutic; to see whether and how such experiences in nature are related to posttraumatic growth. It is a heuristic inquiry through an existential lens, born out of the experience of the researcher, exploring the therapeutic experiences in nature of the researcher and eight research participants. Following the current pilot stage, a further eight interview transcripts capturing rich and textured descriptions will be analysed by finding the meaning units of the experiences and organising them into themes, before blending the units and themes into a description that captures the experience of all the participants. The results will provide the personal accounts of nine people, describing in detail how nature may be therapeutic, surfacing the nuances of the sense that people make of these experiences, and illuminating the role they play in their lives. Knowledge in the form of new meanings may emerge to inform the theory and practice of counselling psychology in the treatment of trauma. In addition, reflexive knowledge will be shared about the process by which the researcher uncovers the findings of the study.

Day 2 Paper B1 11:45 – 13:05

1. Paper B1 11:45 - 12:05

Author/s: Joseph Omisanya,
Richard Bayford, Song Wen
and Rebecca Yerworth

Title: Regional Ventilation Distribution in Premature Neonatal Patients with Apnoea using EIT Measurement
Department: Natural Science

Electrical impedance tomography (EIT) is a non-invasive technique that creates images of continuous measurement of surface voltage change from an injection of low-intensity alternating current and high frequency through electrodes attached to a patient's chest. It has the potential to monitor regional ventilation of the lungs to provide the detection of apnoea. This study aims to develop a quicker method to detect apnoea episodes in infants automatically.

The EIT measurement of change in End expiratory lung impedance (Δ EELI) of patients with apnoea in regional ventilation distribution was analysed in the anterior/posterior region of the Left-Right lung. The endpoints were to compare the global EELI among the periods (before, during and after apnoea) and to compare the regional distribution of EELI in four regions (LA, RA, LP, RP).

Fifteen neonates were manually confirmed to have apnoea, ten male and five female, mean age 30.8 ± 2.65 weeks. Two hundred three episodes of apnoea were identified. EELI was highest before apnoea compared to during and after (pre 25.448 ± 0.846 , during 23.28 ± 1.59 , post 22.88 ± 1.99 ; $p = 0.457$). The EELI is lower on both sides of the lung in the anterior (LA: 4.825, RA: 4.6687 with SEM 0.218 and 0.233, respectively) than in the posterior (LP: 6.7881, RP: 6.5552 with SEM 0.273 and 0.254 respectively). Analysis of Variance(ANOVA) for evaluation of statistical difference was done in Minitab version 19.0. No significant difference was observed in the impedance mean before, during and after apnoea. However, there was a significant difference in the regional distribution of impedance between the anterior and posterior regions of the lungs during apnoea ($p=0.001$ at 95% confidence level).

The results show the feasibility of quantitative analysis of EELI in regional ventilation to detect apnoea in preterm neonates.

2. Paper B1 12:05 - 12:25
Author/s: Duncan Allardyce, Erika Loizidou and Ajit Shah

Title: Structure-activity relationship of Argyrin analogues at the proteasome
Department: Natural Science

Structure-activity relationship of Argyrin analogues at the proteasome

Selective immunoproteasome (IP) inhibition, over the constitutive proteasome (CP), is an emerging drug target with widespread therapeutic benefits, particularly in cancers. Studies show promising inhibitory effects of select Argyrin analogues, but few of these (figure 1) have been investigated thus far. Prior to biochemical approaches, *in silico* methodologies can increase the scope of research and focus the direction of further studies, in a time and cost-effective manner.

This phase of the project aims to screen 16 argyrin analogues for binding interactions at CP and IP sites, containing structural variations at the 4 R groups. Elucidation of favoured binding energies and the associated interactions can help to not only reveal those with enhanced potency or selectivity, but the structural features that enable this. Analogues are energetically optimised; macromolecule sites are characterised and AutoDock simulations of independent triplicates reveal binding energies and interactions.

Results revealed a striking 75% of analogues with statistically significant preference to β 1i binding over β 1c, with I, J and K analogues also eliciting preference at β 5i over β 5c ($p<0.05$). At the target, findings indicate S116E and T21S substitutions from β 5c to β 5i as key to exploit for selectivity, as well as the increased size of S1 binding pocket in β 5i and hydrophobicity of S1 in β 1i. Structurally on Argyrin, H at R₄ greatly influences overall pose and favours binding at both sites. A methyl R₁ and R₂ both detriment β 5c, with the latter also enhancing β 5i interactions. R₃ appears relatively nondescript offering potential for optimisation of physiochemical properties.

This approach has identified lead analogues for further characterisation of biological effect through enzymatic assays, cellular viability, and mass spectrometry investigations, complemented with molecular dynamic simulations. Whilst simultaneously providing rational moiety modifications to optimise potency and selectivity towards IP for discovery and synthetic applications in drug design.

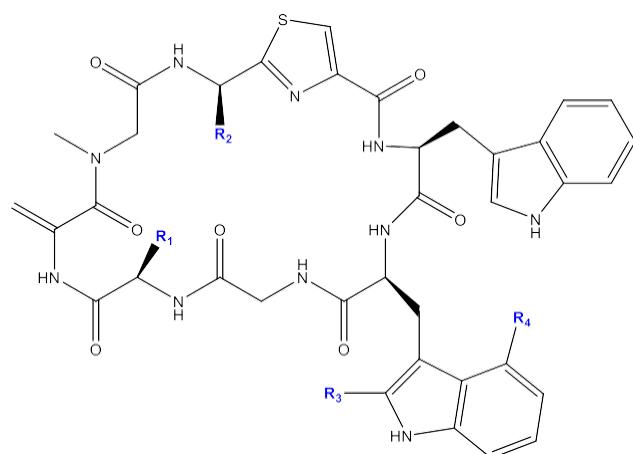


Figure 1 – Argyrin structure

3. Paper B1 12:25 – 12:45**Author/s:** Janice S.

Pereira, Dr. Scott J.

Roberts and Dr. Helen C.

Roberts

Title: ATR inhibition increases sensitivity of a highly aggressive osteosarcoma cell line to cisplatin treatment**Department:** Natural Science

Since the introduction of chemotherapy, the survival rate of osteosarcoma patients has greatly improved. However, chemoresistance remains a major clinical problem, often leading to metastatic disease. Our group has previously shown that deregulation of autophagy is closely associated with this phenomenon. Indeed, inhibition of autophagy through CRISPR/Cas9 knockout (KO) of the key autophagy gene ATG7 in HOS-143B (highly metastatic/aggressive) osteosarcoma cells increases sensitivity to cisplatin. We now present data to define kinase activity in ATG7 deficient HOS-143B cells, and in response to cisplatin, to identify novel pharmacological targets that mimic ATG7 KO and sensitise cells to cisplatin.

The level of phosphorylation of 43 kinase phosphorylation sites was determined using the Proteome Profiler Human Phospho-Kinase Array. Identified kinase target site phosphorylation was validated by Western blot. Subsequently, 4 kinase/kinase targets were identified as potential mediators of autophagy associated cisplatin sensitivity. A dose response assay was carried out to determine the 50% inhibitory concentration (IC50) of HOS-143B cells treated with these inhibitors in combination with cisplatin.

The kinase array indicated that phosphorylation of Akt1/2/3, WNK1 and p53 (on specific sites) was decreased in ATG7 KO cells and further reduced following cisplatin treatment. Interestingly, this was only partially recapitulated when treated with doxorubicin. This led to the identification of 4 small molecule inhibitors for further investigation. From these inhibitors, treatment of wild-type HOS-143B cells with 1 μ M and 5 μ M VE-821 (ATR inhibitor, ATR phosphorylates p53 at serine (S)15) in combination with cisplatin resulted in a 1.9-fold and 3.3-fold decrease in IC50 respectively, compared to controls (p -value = 0.002 and 0.001). Additionally, Western blot analysis confirmed that ATR inhibition combined with cisplatin decreased phosphorylation of p53 and blocked autophagy (characterised by the accumulation of LC3-I and p62).

In summary, ATR/p53 may be a novel mediator of autophagy in osteosarcoma, which mimics ATG7 loss. Furthermore, as p53 S15 is a key target of the DNA damage response (DDR), these data suggest that VE-821 may enhance cisplatin efficacy through the reversal of the DDR. Taken together, inhibition of ATR with VE-821 may have a dual effect and represents a potential adjuvant therapy for osteosarcoma patients.

4. Paper B1 12:45 - 13:05**Author/s:** Paul Jarvis,

Anthony Turner, Paul

Read and Chris Bishop

Title: Reactive Strength Index and its Associations with

Measures of Physical and Sports Performance: A Systematic

Review with Meta-Analysi

Department: Sports Science

Background: Reactive strength index (RSI) is used frequently in the testing and monitoring of athletes. Associations with sports performance measures may vary dependent on the task but a literature synthesis has not been performed.

Objectives: The aim of this meta-analysis was to examine associations between RSI measured during rebound jumping tasks and measures of athletic performance.

Methods: A systematic literature search with meta-analysis was conducted using databases PubMed, SPORTDiscus, Web of Science, and Ovid. Inclusion criteria required studies to: 1) examine the relationship between RSI and an independent measure of physical or sporting

performance for at least one variable; and 2) provide rebound test instructions to minimise ground contact time and maximise displacement of the jump. Methodological quality was assessed using a modified version of the Downs and Black Quality Index tool.

Heterogeneity was examined via the Q statistic and I². Pooled effect sizes were calculated using a random-effects model, with Egger's regression test used to assess small study bias (inclusive of publication bias).

Results: Of the 1320 citations reviewed, a total of 32 studies were included in this meta-analysis. RSI was significantly and moderately associated to strength (isometric: $r = 0.356$ [95% CI: 0.209, 0.504]; isotonic: $r = 0.365$ [0.075, 0.654]; pooled strength measures: $r = 0.339$ [0.209, 0.469]) and endurance performance ($r = 0.401$ [0.173, 0.629]). Significant moderate and negative associations were indicated for acceleration ($r = -0.426$ [-0.562, -0.290]), top speed ($r = -0.326$ [-0.502, -0.151]), and significant large negative associations were noted for change of direction speed ($r = -0.565$ [-0.726, -0.404]). Heterogeneity was trivial to moderate across all measures ($I^2 = 0$ - 66%), and significant for isotonic strength and change of direction speed ($p < 0.1$). Evidence of small study bias was apparent for both acceleration and change of direction speed ($p < 0.05$).

Conclusions: We identified primarily moderate associations between RSI and independent measures of physical and sporting performance, and the strength of these relationships varied based on the task and physical quality assessed. The findings from this meta-analysis can help practitioners to develop more targeted testing and monitoring processes.

Day 2 Paper B2 11:45 – 13:05

1. Paper B2 11:45- 12:05	Title: Recognition Justice: The recognition of socially disadvantaged groups for inclusive policy making in the Flood Risk Management of England
Author/s: Arzoo Hassan	Department: Natural Science

Climate change has increased the frequency of extreme weathers resulting in high precipitation and sea level rise. Consequently, flooding is increasing all over the world including UK. As literature suggests, flooding has exposed many communities living in proximity to floodplains. However, the socially disadvantaged people are at most risk due to existing inequalities along the dimensions of income, gender, age, health, socioeconomic status, disabilities, etc. These inequalities among communities are also a consequence of systemic injustices in distribution, participation and recognition. The injustices to these communities are exacerbated during and after a flooding event due to the institutional misrecognition or unrecognition of flood risk management (FRM). For instance, the standards of FRM in England are built on the United Nations Disaster Risk Reduction (UNDRR) strategies. These UNDRR strategies are top-down, where governments are the main stakeholder. It gives them power over other stakeholders (disadvantaged communities) and this imbalance of power creates recognition issues and discrimination for socially disadvantaged people in the decision-making. Moreover, the shift of FRM from hard engineering solutions (barriers, walls etc.) towards softer measures (adaptation), has not reduced the injustices. Because adaptation is a social process, requiring the involvement of multiple stakeholders. However, the adaptation process gets influenced by power politics, thereby creating more injustice.

Therefore, this study will investigate how socially deprived people are recognized in the FRM policy making to ensure the inclusivity and the equal participation of all the stakeholders in the policy process. The research will also focus on the practices through which participation and inclusion happens.

This research will be focused on two case studies, utilizing an interpretivist approach through the collection of qualitative data. Both secondary and primary data will be used. The collection of secondary data will be based on the initial literature review and the policy

analysis of certain governmental policy documents. For the collection of primary data, 20 in-depth interviews will be conducted with the key informant policymakers from the local FRM along with the communities in the case study area. The data will be analysed by thematic analysis approach.

2. Paper B2 12:05 - 12:25

Author/s: Michael Cardoso

Title: The exercising of leadership within church settings: A

Baptist and Non-Denominational Church Case Study

Department: MLO - Management Leadership and Organisation

Introduction: Leadership as a phenomenon has been studied across time and contexts in a variety of different ways. Most studies of leadership have been from a functional perspective laden with assumptions associated with that discourse (see Stewart 2008; Afolabi 2019; Jensen 2019). In this thesis – focusing on leadership within churches – it will be argued that in order to gain a better understanding of leadership, preconceived ideas of leadership need to be jettisoned in favour of local actors/participants perspectives. Much of the literature on church leadership tends to treat all churches with a broad brush, without giving enough consideration to denominational differences. By giving more weight to the particular denominational context that the research will be occurring in, this thesis proposes that denominational expectations of 'good' leadership will inform interactions between formal leaders / informal leaders / wider congregations.

Aim of research: Guided by the research question: "How is leadership exercised within a church setting?", leadership in churches will be analysed from an interpretive perspective with the aim of better understanding leadership's appeal to Weberian ideal types, and how that appeal is affected by participants' attribution of the context as changing, being constant or in crisis.

Method: Using Weberian ideal types of authority and Grint's (2005) typology of problems as being either tame, wicked or critical this PhD proposes a 2-stage approach to data collection at 2 different church denominations.

Stage 1) Interviews with leaders (both formal and informal) and congregations to explore expectations of good and bad leadership (in that context)

Stage 2) Issues identified from stage 1 will be followed by fieldwork observations and follow up interviews with to confirm, clarify and explore expectations of good and bad leadership in situations identified at stage 2.

Preliminary Findings: I have completed stage 1, and an initial analysis of the data at both sites suggests that informal leaders play a significant role in the experience of leadership by church members as they, for example, act as a 'pressure valve' or shore up the perceived shortcomings of the formal leaders. This finding is interesting as informal leadership structures/processes tend to be overlooked by more functional discursive approaches to leadership. Thus, the aim of the second round of data collection is an in-depth exploration of the operation of informal leadership. This will help create a much richer picture of leadership in church by giving more weight to the denominational context as well as taking a wider view of who the leaders are, thus, enabling me to address the research question of how leadership is exercise within a church setting.

3. Paper B2 12:25 – 12:45	Title: Pre and post convent life and the impact of the community on some Rev Sisters who disaffiliate or defect willingly and unwillingly from the convent Author/s: M. Ugochinyere Nwachukwu Department: Psychology
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The dwindling Christian population in the UK has been a source of concern to many researchers. It has been predicted that the Christian population will decrease to 45% by 2050, in contrast to the 11% rise in the Muslim population

Previous studies in this area focused on the number of young women who entered the religious Orders and the number that successfully made their final vows. However, none has focused on the factors that trigger their defection from their religious Orders. This study aims to establish the potential factors which could trigger the early exit from the religious Orders and to make recommendations to minimise further exit in the future.

The study employed a single wave survey with questionnaires completed by 259 participants in the UK. The results were analysed using the T-test and multiple linear regression analyses

The findings from the Analyses reveal that Authoritative Influence, Neglect, General Anxiety Disorder (GAD), Submissive behaviour, Quality of life, Lack of self-control, and Power Struggle all lead to defection; whilst surprisingly; Negative Affectivity (AffN) encourages Sisters to remain in the Order. On the other hand, the T-test shows that Sisters who remained with the Order related better with their superiors and their peers whilst those who left could have had difficulty relating with other people in the Order. Also, the major factor that predicts participants' defection is the inability to support their families when faced with difficult situations.

The research further demonstrates that the more the Sisters experience negative emotions, the more likely they remain with the Order which is unexpected. It recommends using different approaches such as a mixed method to validate these findings in future research.

4. Paper B2 12:45 – 13:05	Title: On the Identification & Definition of Play Styles in the National Football League Author/s: Ben Carter, Nimai Parmar and Nic James Department: Sports Science
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Rationale: The increasing availability of complex play-by-play datasets has enabled unprecedented observations of novel microscopic behaviours - greatly augmenting the range of accessible research questions (Han & Kamber 2012, Jeon & Park 2021). This presents a methodological challenge for sports including American football, afflicted by unsubstantiated theory concerning the relationship between performance variables. Aim: In the NFL, the ability to predict opposition behaviours informs critical decision making. Moreover, understanding differences in offensive and defensive patterns of play has emerged as a recent objective throughout analogous football codes and as a limitation in American Football (Fokoué & Foehrenbach 2011, Joash Fernandes et al. 2020). Whilst the assimilation of match conditions, situational variables and game state have played a crucial role in predicting offensive and defensive play design, the absence of an empirical foundation from which to identify styles of play confound current perceptions of team interactions (Lago-Peñas et al. 2017, Gómez et al. 2018, Gollan et al. 2020). Method: Principal component analysis was used to explore underlying structures responsible for correlations among variables over a period of four NFL seasons (2018/21 - 1040 games) - a dimensionality reduction technique that produces a subset of components which minimise the present variation among input variables (Jolliffe 2005, Boslaugh & Watters 2008, Tabachnick & Fidell 2013). Findings: Preliminary results suggest the presence of six areas of offensive and defensive play underpinning performance in the NFL. Contribution: These findings provide a means by which team performance may be further analysed and potentially aid in predicting and rationalising play design.

Day 2 Paper B3 11:45 – 13:05

1. Paper B3 11:45 - 12:05	Title: Walking with change: A first-person inquiry into the development of a post-human "frilufts"-life
Author/s: Annemiek Friebel	Department: DBA/DProf (subject Practice)

This thesis explores how walking in nature can support change in people and organisations. As a pragmatic, action-oriented person, I experienced that walking in nature offered me an abundant space for reflection. Why did walking help pondering change questions? What was happening during these walks? And how did my practice of walking develop over the years? Through this inquiry I explored my main question of: How does my practice of walking facilitate understanding change in me and others?

I walked hundreds of kilometres, alone and with others, through astonishing and rugged Norwegian landscapes. While using an extended epistemology of embodied knowing (Barbour, 2004; Seeley, 2014), I engaged in several series of first-person action research cycles (Reason & Bradbury, 2013), collecting data through journaling, visual methods, and story writing. I used them in reflective processes to make sense of my developing practice. Based on these reflected experiences, I propose to widen the purpose of action research to the flourishing of all living beings on our planet.

Theories of Deep Ecology (Næss, 1995, 2008), Eco-psychology (Abram, 1997; Fisher, 2013; Roszak, 1995), Friluftsliv pedagogy (Tordsson, 2014), and movement (Sheets-Johnstone, 2011) are finely woven together to support this work and finally position it in the field of ecological post-humanism (Morton, 2018).

Inquiring into walking with grief while pondering upon death, I became aware of the countless distinct living beings that participated in this research. I experienced that I was inextricably connected to them in affectionate, earth motherly relationships. I learned that my walking had brought me an ontology of joy, that values all life on earth.

In the last part of this thesis, I share how I started applying this developed practice with my clients in interventions for organisational change. I present an argument and hope for leaders and teams to spend more time walking outdoors in friluftsliv, to find inspirational pathways for change and development.

My enhanced walking practice celebrates the interconnectedness of all living beings on a moving and ever-changing earth into an ecological post-human future.

2. Paper B3 12:05- 12:25	Title: Walking with change: A first-person inquiry into the development of a post-human "frilufts"-life
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I walked hundreds of kilometres, alone and with others, through astonishing and rugged Norwegian landscapes. While using an extended epistemology of embodied knowing

(Barbour, 2004; Seeley, 2014), I engaged in several series of first-person action research cycles (Reason & Bradbury, 2013), collecting data through journaling, visual methods, and story writing. I used them in reflective processes to make sense of my developing practice. Based on these reflected experiences, I propose to widen the purpose of action research to the flourishing of all living beings on our planet.

Theories of Deep Ecology (Næss, 1995, 2008), Eco-psychology (Abram, 1997; Fisher, 2013; Roszak, 1995), Friluftsliv pedagogy (Tordsson, 2014), and movement (Sheets-Johnstone, 2011) are finely woven together to support this work and finally position it in the field of ecological post-humanism (Morton, 2018).

Inquiring into walking with grief while pondering upon death, I became aware of the countless distinct living beings that participated in this research. I experienced that I was inextricably connected to them in affectionate, earth motherly relationships. I learned that my walking had brought me an ontology of joy, that values all life on earth.

In the last part of this thesis, I share how I started applying this developed practice with my clients in interventions for organisational change. I present an argument and hope for leaders and teams to spend more time walking outdoors in friluftsliv, to find inspirational pathways for change and development.

My enhanced walking practice celebrates the interconnectedness of all living beings on a moving and ever-changing earth into an ecological post-human future.

3. Paper B3 12:25 - 12:45 | **Title:** A robot assistant for music therapy sessions
Author/s: Jwaad Hussain | **Department:** Design, Engineering and Mathematics

With the steady increase of global life expectancy more and more people will be at risk of some form of cognitive decline (e.g., dementia). One method to combat this is Music-Therapy (MT). MT is a non-pharmacological treatment that is able to maintain / enhance cognitive abilities, on the basis that music can stimulate different brain functions in its participants. Also, social robots are becoming increasingly competent and versatile, thanks to rapid advancements in technology. These robots, however, are still understudied in cognitive rehabilitation settings. As such, in this work we aim to explore to what degree a small humanoid robot (QT robot of LUXAI) can aid MT-programmes and enable them to reach more potential beneficiaries.

This robot has been programmed to play some music-centered games with participants to solicit various brain functions. These are known as cognitive games. One such developed game is a beat synchronization game, where players are prompted to clap / drum in time with the beat of a musical score, with the intention of fostering improvement to attentional functions. We have so far implemented 3 such musical-cognitive games, each eliciting activation of different cognitive functions. The robot would have multiple sessions with the care-home residents, alternating with MT sessions over 2 months, allowing for comparison between the resident's cognitive ability prior to and after the treatments and also across a control group who will only receive conventional MT sessions. To increase the likelihood of the robot's success, it is intended to feature some 10+ games, to both ensure a wide range of cognitive functions are exercised, as well as to keep the interaction fun and engaging.

A pilot study has been conducted, exposing the games to 5 participants aged 65 – 100. According to the participants' feedback, they enjoyed their short 10-minute interaction with the robot, and suggested that it is suitable in both form and personality for older individuals to interact with. It was also pointed out that, in order to be presented to participants with

some level of cognitive decline, games will likely require more in-depth tutorials and explanations.

4. Paper B3 12:45 – 13:05 **Title:** Conceptualisation of the right to explanation in the context

Author/s: Uchenna

Nnawuchi, Carlisle George

and Florian Kammueler

of machine learning

Department: Computer Science

The Right to Explanation or Right to Contestation as referred to in some jurisdictions (USA), now a novel notorious aphorism, has taken the centre of global focus, and orbiting the corridors of European and international Law. In most recent times, it has been cited in the body of the first original text of the General Data Protection Regulation 2016 (GDPR), before it was subsequently relegated to the recital owing to certain political concessions.

This interchange has led to a global debate of whether an explicit legal right to explanation exists in the GDPR. However, as this debate surges on, this right to explanation remains a fallow hunting ground for scholars as there are dearth of literatures wet by inks of researchers on the origin, conception and nature, boundaries, applicability, right-holders (locus standi), need, and rationale for this right. The right to explanation is still at its infant stages in philosophical and legal jurisprudence.

The concern for a right to explanation is borne of the compulsion to protect data subjects against disparate algorithmic decision-making that directly impacts their fundamental rights. The rise in the use of Machines learning (ML)/Artificial Intelligence (AI) in automated decision-making or as an assisted/support decision-making system in a variety of spheres — medicine, law, transportation, finance, and security — have nurtured constitutional, ethical, and human right concerns. As these machines churn out decisions, claims suggest that these decisions are fraught with algorithmic bias. These piqued questions bothering on trust in the use of ML systems, ethical and fundamental rights implication of these algorithmic decision on data subjects. Accordingly, scholars peeved by the above-stated, ensued to moaning over the use of black box systems and the demand to open the black box or preferably, develop a white box system (transparent system) where algorithmic decisions can be explained and challenged by the audience, audited, and reviewed upon challenge. Hence, the claim that ML systems or AI be more explainable (XAI).

This paper seeks to investigate what the right to explanation means with a view to conceptualising this right, ascertain who are the suitable right-holders, the modalities and types of explanations, boundaries, applicability, and the defence to this right and challenges associated with embracing this right.

Day 2 Paper B4 11:45 – 13:05

1. Paper B4 11:45 - 12:05 **Title:** An existential phenomenological exploration into the

Author/s: Stella Duffy

Department: HSCE MProf/DProf

What is it like to be being-postmenopausal?

Menopause is a signifier of ageing, a wake-up call to our mortality. While much research focuses on perimenopausal and menopausal symptomology, postmenopause – lasting around one third of our lives – receives far less attention. Biomedically, postmenopause occurs when periods have ceased for a year and is therefore only observable retrospectively. This embodied experience, lived by 50% of the population, is often subject to ignorance, fear and silence.

Aiming to create an inclusive study, I will use the biomedical definition of standard ('natural') menopause as a common ground to explore participants' embodied experience of postmenopause, especially the existential elements: involuntary transition, fear of change, losing control. Research shows that the menopausal transition is a bio-pyscho-socio-cultural phenomenon, yet the leading societal narrative around menopause is the biomedical model which understands the ageing body as a failing organism. In the transition to postmenopause many people report confronting ageism and sexism, some of which is internalized; while others, especially those from cultures where ageing is revered, report postmenopause as a release, a liberation.

The lived body is the place where experience and understanding connect, and menopause is a physically and emotionally experienced dynamic transition. Drawing on data from a pilot interview, I will ask what if we were to consider that all transitions are complex and often difficult? That any transition also offers the possibility of finding meaning and new learning? Given the physical elements of the transition, including the reversion from fertility to infertility and cessation of menstruation, it is a being-towards-death that is harder to ignore or hide than many signs of ageing. Whatever our gender or age, there is existential experience and untapped knowledge and possibility in exploring the holistic experience of postmenopause.
Supervisors: Dr Claire Arnold-Baker, Dr Patricia Bonnici

2. Paper B4 12:05 - 12:25

Author/s: Rina Kakad

Title: The experience of love in romantic relationships

Department: Psychology

Rationale

What is love? Tangled in amongst concepts of freedom and power dynamics the experience of love is different to different people. A concept fundamental to our existence and yet such little research seems to focus on it. Having worked in mental health services and schools for many years I wonder whether the experience of love would change the experience of the challenges faced by individuals.

Aim

By shining a light on the experiences of love people have had in their romantic relationships. I believe this research will go some way for Counselling Psychologists to consider and reflect on how love or the lack of love could contribute to the challenges their clients encounter.

Research methods planned

I plan to enable participants to describe their own experiences, with all the vitality that language allows with a reflection on their position in the world. I hope participants will be able to use the research as a tool to contribute to our knowledge of working with clients therapeutically. The method I plan to use is one in which the researcher is able to develop an understanding without attempting to analyse and interpret what is being communicated and instead staying with the client's own interpretation of their experience.

Therefore, I plan to use an existential phenomenological approach to try and grasp the complex reality of what individuals experience and how they make sense of their world using van Deurzen's (2015) Structural Existential Analysis (SEA).

Expected findings and contribution

An understanding of love may encourage therapists to explore love and where it is located. This research may reveal the power of love as an emotion and whether or not it can be experienced without needing to channel it towards someone. From my own experience love is an energy that resides within humans. As a mental health practitioner and also a Trainee Counselling Psychologist I want to contemplate on what love is to others, I hope this will

shine some light towards how this phenomenon can be explored with clients in order to enable them to find their own way in their own lives.

3. Paper B4 12:25 – 12:45	Title: The Effects of Ageing and Processing on Perceptual and Conceptual Priming and Recognition
Author/s: Maryam Al-Abdulla	Department: Psychology

Explicit (conscious) memory declines with age, but whether or not implicit (unconscious) memory changes with age is debated. Over the years, some studies have reported no effect of ageing on implicit memory, while others suggest that this form of memory is subject to age-related decline. The way in which information is cognitively processed during encoding and testing may be a critical factor behind the discrepancies. For example, conceptual (content/meaning based) versus perceptual (physical/feature based) processing are not equally affected by ageing, as studies suggest that older adults show greater age-related decline in tasks that engage conceptual processing compared with tasks that engage perceptual processing. As such, age differences may be larger following conceptual processing. This experiment aims to clarify the effect of ageing on implicit and explicit memory by contrasting the performance of young and older adults, and examining interactions with processing. In the experiment, processing (perceptual/conceptual) was manipulated during an encoding phase prior to measures priming and recognition. Further, there were two different implicit tests: a perceptual test (continuous identification with recognition), and a conceptual test (continuous verification with recognition), both of which were matched on all characteristics except processing. The design yielded four conditions: perceptual encoding, perceptual test [PP]; conceptual encoding, perceptual test [CP]; perceptual encoding, conceptual test [PC]; conceptual encoding, conceptual test [CC]. An effect of Age on priming and recognition emerged numerically, but did not reach significance. However, there was a significant main effect of Processing on priming and recognition.

Day 2 Papers B5 11:45 – 13:05

1. Paper B5 11:45 - 12:05	Title: Gamification for a Better Creative Community -- Motivational Graphics in Interaction Design
Author/s: Xiaojuan Zhang	Department: Computer Science

Interaction design is the practice of designing interactive digital products, environments, systems, and services; graphics is the most important elements to visualise the products. This study investigates how graphics work in interaction design and the principles to make it work better. The study goes through building a gamified mobile application that works for the online creative community. Gamification is a design approach, enhances users' engagement with a product or service. The graphics in gamified applications is defined as motivational graphics. This research provides a stylised user interface for gamified elements, support the interaction process, to attract and retain more users. The principles of designing these graphics which work effectively in interaction design are drawn from the practical process of building this app and followed the tests in different user groups. The practical process interprets the design concept, theories, and ethics behind of it. This research positions graphics in interaction design within the digital context, demonstrating how the graphics be generated and the principles of the visual language developed through building application and subsequent interpretations.

2. Paper B5 12:05 - 12:25
Author/s: Thanh Nguyen

Title: Effects of Metacognitive Reading Strategy Instruction on L2 Reading Comprehension and Motivation: A Meta-Analysis and A Vietnamese Teaching Intervention
Department: Education

This presentation focuses on the research design of my study which aims to identify the effects of metacognitive reading strategy instruction (MRSI) on reading comprehension and motivation by a meta-analysis and a Vietnamese teaching intervention.

There are contradictory findings as regards the impacts of MRSI. This raises the questions about the general effects of MRSI and the conditions where MRSI works best. Participants' age is one of the most varied moderating variables and examining whether learners' age affects the effects of MRSI may have practical implications for L2 teaching. Therefore, a meta-analysis will be conducted due to its ability to reach credible overall conclusions and find out treatments' patterns by synthesising results of various studies. Besides, a search of literature reveals the lack of replications on Vietnamese young learners so a teaching intervention which is the most suitable for identifying the connection between variables and cause-effect relationships will be carried out.

The results of relevant up-to-date primary studies in the meta-analysis will be transformed into effect sizes, then all effect sizes will be aggregated to identify the overall effects of MRSI. The mean effect sizes of studies with the same options of participants' age will be compared to examine the correlation between the outcomes and the moderating variable.

In the teaching intervention, 60 Vietnamese 5th graders in 2 elementary classes at an English centre in Vietnam will be assigned to two groups. One teacher at the centre will give MRSI to the experimental group and non-metacognitive instruction to the control group. Both groups will complete the pre-test, post-test and inventories before and after the instruction. To bring a nuance to the study, the researcher will conduct focus group interviews with participants. The quantitative and qualitative data will be analysed by SPSS and NVivo to identify the impacts of MRSI on Vietnamese 5th graders' reading comprehension and motivation, respectively.

The study will provide insights into metacognition, address the questions about the overall effects of MRSI and its patterns, and increase the diversity of empirical evidence for MRSI.

3. Paper B5 12:25 – 12:45
Author/s: Stephen Hall,
Serengul Smith, Can Baskent
and Clifford De Raffaele

Title: Toward a Knowledge Management framework for Micro Enterprise
Department: Computer Science

Knowledge management systems allow enterprise to continuously bring innovative product and service offerings to market in the shortest of timeframes. The adoption and use of such systems demand considerable resources and investment and are consequently aimed at large enterprise. Despite its advantage over larger firms, the size of micro enterprise and its inherent limited resources prohibit the adoption of existing knowledge management systems. In the face of large enterprise, the micro enterprise can increase its competitiveness if only it can exploit the potential that such systems provide. This research characterizes the salient attributes of micro enterprise, establishes how it informally manages knowledge, and identifies the barriers it faces in implementing and using existing knowledge management systems. It contributes toward a broader research scope that aims to propose a novel knowledge management framework that is designed to cater for the operating parameters of micro enterprise and provide features that are specific to its peculiarities. This research presents a systematic review of existing literature that defines

knowledge management and its benefits, characterizes the micro enterprise in comparison to other organisations and, establishes its inability to use existing knowledge management systems. It also proposes an outline methodology for developing an optimized knowledge management framework for the micro enterprise involving a phased iterative approach yielding empirical evidence.

4. Paper B5 12:45 - 13:05 | **Title:** Iranian Women Unveiled: A Documentary Study of
Author/s: Pune Parsafar | **Representation of Iranian Women in Cinema**
Department: Media and Performing Arts

My PhD is a practice-based project containing a feature-length documentary, Iranian Women Unveiled, and an accompanying written thesis. The documentary is a portrayal of the lives and struggles of six influential Iranian women activists, now living in exile, engaged in a number of areas of political and social activism. These areas encompass the fight for women's rights and equality, for secularism, free thought and expression, for civil liberties, the abolition of the death penalty and stoning, redress for families of executed political prisoners, and for workers' rights. The six women in my film, together, thus represent important areas of social protest in the current Iranian society against the Islamic regime, institutions and laws in Iran and, more generally, against political Islam.

I made my documentary as a practical contribution to the development of a progressive and independent cinema in Iran. The choice of women activists was a deliberate attempt to leverage an empowered representation of women in cinema, as a polar opposite to the dominant patriarchal and misogynistic portrayals of women in Iran's official cinema, which are explored in the thesis.

My documentary explores representation of women in cinema around a number of key themes, such as women's bodies, women's voice, dance, music and use of colour. Women's free expression in all these areas comes into conflict with the misogynistic laws and institutions in place in Iran. The cinematic forms and devices that I employ aim to allow an actually existing, empowered image of the Iranian women to emerge.

The thesis, as well as the film, build a foundation for further research on the representation of women in cinema in other countries living under Islamic laws. The critical perspectives and the particular practical-activist approach employed also have the potential to be applied to studies of women's rights (and wider social justice) issues in films and artistic productions in the West and globally.

Day 2 23.6.22 Abstracts for Posters

Chair/Organiser Gordon Weller

Judges: Leena Robertson, Huw Jones, Dandan Han, Elda Nikolou-Walker, Naomi House

1. Author/s: Bassem Bataineh, Dirk Wildeboer, Ghada Elayat and Lucy Ghali

Title: The Role Of HOXB13 Gene In The Wound Healing Process
Department: Natural Science

INTRODUCTION: In contrasts to adult skin, early gestational wounds heal by a process of regeneration resulting in no scar formation. HOX genes are a family of highly conserved transcription factors grouped into four clusters on different chromosomes. Studies on mouse models have shown that HOXB13 is downregulated in foetal mouse skin leading to scarless wound healing. Absence of downregulation in adult mouse skin is associated with scar formation. The wound healing process is a complex biological process involving multiple transcriptional factors including PRX-2 and FOXn1 which play an essential role in skin and fibroblasts development. Previous studies highlighted that hyaluronan and CD26 are highly expressed in the foetal mouse fibroblasts and could be considered as markers of scarless wound healing.

AIM: The purpose of this study is to identify the role of HOXB13 as a transcriptional regulatory gene in human wound scarring process using adult and foetal skin tissue. The correlation between HOXB13, PRX-2 and FOXn1 in scar formation will also be explored.
PLANNED RESEARCH METHODS: Foetal and adult human fibroblast cell lines will be grown according to manufacturer guidelines. DNA, RNA and protein will be extracted from the cell lines using standard protocols. Gene expression will be assessed using TaqMan polymerase for qPCR with primers designed for the HOXB13, PRX-2 and FOXn1 genes. Methylation status of the promoter region in the HOXB13 gene will be studied by bisulfite conversion kit. Gene silencing will be done through designing siRNA sense and antisense sequence followed by transfecting the cells using Lipofectamine kit. Western blot will be used to assess protein expression. The expression of PRX-2, FOXn1, CD26 and hyaluronan will be assessed and correlated to HoxB13 methylation status.

CURRENT AND EXPECTED FINDINGS: Investigating the HOXB13 epigenetic regulation and understanding the interplay between HOXB13 and other transcription factor genes will improve molecular therapeutics targeting scar formation in adult injuries.

2. Author/s: Neha Nathaniel

Title: Biosensor development for the detection of tau and Visinin-like protein 1 as an investigative device for monitoring Alzheimer's disease progression.

Department: Natural Science

The ageing UK population is struggling with an unprecedented increase in age-related conditions, including Alzheimer's Disease (AD), the most debilitating form of dementia. Thus there is a need to develop early and effective detection of AD. The AD pathogenesis involves plaque formation from amyloid precursor protein fragments (amyloid- β 40 and β 42), and tangles from phosphorylated tau proteins. Visinin-like protein-1 a novel marker in cerebrospinal fluid (CSF) promises high diagnostic accuracy and potential for differential AD diagnosis. Lack of effective therapeutic agent for AD treatment clearly demonstrates the imperative need of an early diagnosis of the disease. A portable, cost-effective device monitoring a signature of biomarkers over time in large patient populations will provide an early indication of the onset of AD enabling its objective monitoring.

This study focusses on developing a mini portable biosensor device, providing time efficient and reliable results using the tetra polar gold electrode.

The selectivity and specificity of VILIP-1 will be further determined through Western blotting and ELISA assays conducted to assess its binding capacity.

Computational docking helped evaluate the binding epitope of the antibody of interest. Further computational work was conducted to ensure correct orientation of the Fab fragment which allows free binding to the target antigens. A Fab fragment 3G6D was docked with the known biomarkers of AD - amyloid-beta, tau, neurogranin and VILIP-3 (due to unavailability of PDB code for VILIP1, selected being homologous) using PDB codes from RCSB website. This helped determine the extent of possible interference of the biomarkers and other proteins already present in the cerebrospinal fluid of the AD patients.

The molecular docking result of amyloid beta with 3G6D molecule, shows interaction at the A and C helices with one hydrogen bond formed. A smaller tau peptide (267-312) of 46 amino acids, was selected for docking and showed binding at helix A and C. the smaller molecules of amyloid beta 1-16 and tau peptide showed a smaller binding energy compared to larger amino acid chains of neurogranin and VILIP3. This is well supported by the fact that Autodock tool is more suited for docking the small ligands to protein receptors.

3. Author/s: Carla Wood

Title: Approach to Operational Risk Management of General Medical Devices in an Acute Hospital in England

Department: HSCE MProf/DProf

Medical devices play a vital role in modern healthcare, aiding in the provision of diagnosis and treatment. Medical device operational risk management is essential for ensuring the elimination and reduction of hazards, risks and adverse incidents while safeguarding patients, users, and visitors to the acute setting.

The purpose of this research is to examine and evaluate current operational general medical device risk management approaches in an acute hospital in England. Through assessing the social-technical subsystem in relation to this risk with collaborations and communications between clinical, technical, and corporate directorates and understanding the heuristics and biases at play for hazards, risks, approaches employed and mitigations across the multi-disciplinary groups. It seeks to establish if a customisable centralised approach can provide improvements in operational medical device risk management and understanding, while improving outcomes for the safety of patients, users, staff and visitors.

This research utilises a bricolage methodological approach, combining a range of data collection methods and analysis for biases, heuristics and communication streams, alongside current operational risk management methods employed, reported medical device faults, medical device Incidents and investigations. Through the encapsulation of current approaches and methodologies used this research aims to evaluate the effectiveness of medical device risk management in the promotion of safety, risk mitigation and reduction. Establishing how medical device risk management in line with the required guidelines are met, alongside the justification of objective and subjective decisions, recording and evaluation. This research will aid in identifying improvements to processes to the highest standards of risk reduction, mitigation and safety for the operational use of general medical devices.

4. Author/s: Malcolm Bevan

Title: The impact of floods on the professional wellbeing of emergency first responders (EFRs).

Department: Natural Science

In recent years, several areas across the United Kingdom have been heavily impacted by severe flooding incidents. As a result, emergency first response services are now confronted by increasingly unprecedented situations requiring many more resources and an increased labour effort when compared to previous years.

The Environment Agency (EA) fulfils a crucial role in these events as the main coordinator of first response actions during flood events. Considering the consensus that these events are likely to occur with an increased frequency in future years, emergency first response personnel within the agency are at a heightened risk of a reduction in their professional wellbeing.

Whilst there is some literature considering the impact of response on blue light services (Coxon et al. 2016; Arble et al. 2018; Choi, 2020). Currently, we lack specific data on how responding to flooding affects the professional wellbeing of emergency first responders from other organisations. Professional response (such as flood warning roles and liaison with flooded communities) is undertaken as a secondary, voluntary role by Environment Agency staff (Priest, 2019) and there is a lack of understanding about how this affects first responders that are not exposed daily to emergency situations. Considering the absence of data on this topic, the EA is constrained by a lack of evidence in developing and implementing measures to protect its workforce.

The aim of this study is to investigate the impact of flooding on the professional well-being of duty officers working for the EA. For the scope of this research, professional well-being is understood as an intersection between well-being domains, including physical, mental, and social. It is expected that this research will identify risk factors associated with flooding incidents and their impact on the professional well-being of emergency first responders who undertake this profession as a secondary job role. The investigation itself will focus on providing practical recommendations to support the EA in protecting and improving the professional well-being amongst their first response workforce.

5. Author/s: Katherine Paice, Laura Wilson, Christopher Curtis, Konstantinos Papadopoulos and Anthony Turner	Title: Assessing the prevalence and risk of disordered eating in female netball players. Department: Sport Science
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Introduction

Low energy availability (LEA) is determined by increased or excessive exercise, reduced caloric intake, or a combination of both, resulting in a negative energy balance and can be associated with eating disorders (ED) or disordered eating (DE). Chronic LEA can result in a relative energy deficit and reduced health and sporting performance. Research has shown that ED are more likely in professional female athletes compared to amateur athletes, with 44% of professional athletes suffering from LEA and 27% experiencing DE. High prevalence of LEA and DE has been seen in female team sport athletes but no research has been carried out on netball players specifically.

Aim

The aim of this study is to determine risk of LEA, DE and ED in female netball players, and to assess whether this changes across competitive levels of netball.

Method

Female netball players (n=384) will be asked to complete an anonymous online survey which will assess the risk of LEA, DE and ED. Participants must be 18 years old or over, and have been playing netball at least once a week for a minimum of 6 months. The survey will be open to players at any competitive level. All participants must provide informed consent before taking part in the study, which has been approved by the London Sport Institute research ethics sub-committee.

The survey will be provided using Qualtrics. Participants will access the survey via a link or QR code. The survey will consist of demographic questions to determine age, player

position, training history and the competitive level of netball they participate in. The main survey will consist of the Female Athlete Screening Tool and the Low Energy Availability in Females questionnaire. Data will be analysed using descriptive statistics on Microsoft Excel and questionnaire analysis will be in line with guidelines (McNulty et al., 2001). Multiple ANOVA's and linear regression will be used to determine any difference in scores based on competitive level, age or position using IBM SPSS version 25.

Conclusion

It is predicted that prevalence of LEA, DE and ED will be highest in professional netball players, compared to amateur level.

6. Author/s: Mohammad Emran Hashimyar and Dr Mahdi Aiash

Title: Deep Learning based Intrusion Detection System for MQTT & AMQP IoT Protocols OR
Department: Computer Science

Internet of Things (IoT) is one of today's greatest technological trends; it helps creating applications to improve the quality of life. For IoTs' services to succeed new communication protocols have been introduced at the application level such as Message Queuing Telemetry Transport (MQTT) and Advanced Message Queuing Protocol (AMQP), the two most common lightweight protocols for communication between IoTs' applications. Unfortunately, cyberattacks are rapidly becoming a major threat to the IoT's security; cyber criminals are continuously exploiting vulnerabilities in IoTs applications. Some of these attacks are known types of network attacks such as DDOS, brute force, and MITM attacks, while others are unique for the IoTs protocols such as stack buffer overflow and MQTT shutdown. This research focuses on enhancing the security of IoTs' application protocols namely MQTT and AMQP by introducing a unified Machine learning based Intrusion detection (ML-ID) to detect and block cyber-attacks targeting both protocols. Existing IDs in the literature have been focusing on protecting one type of protocols but not the other, and they were all focusing on network activities only while detecting the intrusions. This means that they were missing on local, system-level activities that might be associated with the attacks. Furthermore, there have been no studies to evaluate the resilience of the proposed ML models used by these IDs against adversarial ML attacks. Therefore, we propose developing a novel machine learning-based intrusion detection system (ML-IDS) capable of detecting a broader range of attacks against the two main IoT application protocols. We built a testbed comprising both AMQP and MQTT applications, we are in the process of adding new entries to existing data sets based on attacks we launched in our testbed. Once we have an updated dataset, we will apply deep and ML models to the new dataset generated from the IoT network to detect each attack based on the described attacks' signatures and compare performance with other ML models such as random forest, clustering, Support Vector Machine (SVM), and decision tree. We test the ML model's security and robustness against adversaries' scenarios to have a higher level of confidence in the IDS's decisions.

7. Author/s: Abimbola Ajiboye

Title: The Validity and Enforcement of Electronic Signature in Arbitration Agreement: A Comparative Analysis between English law, Nigerian Law, and China Law.
Department: Law

Courts, as well as other institutions, are seeking efficient ways of dispensing justice and dispute resolution through the use of technology. Parties to commercial transactions and other types of agreements are also increasingly turning to information technology as a means of concluding contracts. The impact of the covid-19 pandemic and natural disasters e.g floods and events like war brought about the need for this. However, little research has

been done to explore the impact and implication of the use of electronic communications for dispute resolution, particularly e-signature as a means of concluding arbitration agreements.

Online Dispute Resolution known as ODR is the communication of information either to negotiate mediate or arbitrate online. With regards to electronic contracts and communications determining whether the concept and application of electronic signatures are valid and enforceable will depend on the laws, mechanisms, and applications laid down in different jurisdictions.

Despite the existence of the UNCITRAL Model Laws and other national statutes and laws giving recognition to information technology in arbitration as well as other laws and the establishment of the ODR platform provided by the European Commission and also, the introduction of ICT in most legal systems, there remains the issue of validity and enforceability of electronic signature. A negative aspect of the use of electronic signatures is its lack of a set of guidelines for identification.

The focus of this paper will be on arbitration agreements, particularly on the validity of electronic signatures in arbitration agreements. It will consider this issue from an international and comparative analysis perspective of e-signature in an arbitration agreement with a focus on three jurisdictions, the U.K, Nigeria, and China. This research will be carried out through a strict legal analysis of primary and secondary sources and provide solutions to the use of electronic signatures both within the same jurisdiction and between separate jurisdictions.

8. Author/s: Tareq Aldlimi, Costas Priporas, Shing-Wan Chang and Franco Beschizza

Title: "Don't forget to hit that share button!" Explaining the roles of influencer, content, and audience in developing intention to share: a study of influencer marketing on Snapchat in Saudi Arabia.

Department: Marketing

To exploit the enormous number of social media users, firms are using influencer marketing –the use of third-party influencers to promote their products and services on social media. Influencers can shape consumers' attitudes and behaviours by establishing intimate relationships with their followers. This research focuses on Snapchat, the social platform favoured by Saudi Arabian influencers. As of January 2021, Saudi Arabia had the biggest Snapchat audience reach in the world, reaching 71.4% of the population (Statista, 2021). Despite this, Snapchat's implications for marketers remain unclear, with few studies showing marketers how to connect with consumers via influencers.

The literature on influencer marketing has identified three focal factors for persuasive influencer campaigns to occur: personal attributes' of influencers; message attributes (i.e., content); and personal attributes of the audience. Yet, they are usually studied in isolation. Based on the Communication-Persuasion Matrix (McGuire, 2001), we argue that the influencer, content, and audience are all equally important in affecting the effectiveness of influencer campaigns. Existing models have been criticized for covering a limited range of factors and over-simplify the complex persuasion process (Moraes et al., 2019). Thus, more work is required to develop comprehensive models that reflect factors of an influencer marketing campaign. In addition, previous research did not consider the role of consumers' attempts to verify the factuality of what influencers claim. Therefore, this research aims to investigate the factors influencing Saudi Arabian consumers' intention to share social media influencers' content; and to explore how consumers' verification behaviour moderates this process.

A theoretical model was developed based on the Stimulus-Organism-Response framework and the Communication-Persuasion Matrix. Methodologically, this study adopts a pragmatic stance and an exploratory sequential mixed methods research design, including two stages of data collection and analysis. In the first stage, an exploratory study was conducted with 21 active followers of social media influencers. Thematic analysis was employed using NVivo 12. Based on the exploratory findings, the initial conceptual model has been updated and refined. In the second stage, utilising an online survey, structural equation modelling (SEM) will be used to test the research hypotheses. Practical and theoretical implications will be provided.

9. Author/s: Omar Zammit, Serengul Smith, Clifford De Raffaele and David Windridge

Title: A machine learning approach to building a collaborative recommender system based on users browsing data with the aim of supporting users' engagement on a specific subject.

Department: Computer Science

One of the main challenges encountered by students while performing information retrieval from the Internet is caused by 'Information Overload'. There is so much data online that sometimes students as Internet users struggle to find what they are looking for. Search engines intend to identify documents related to a given keyphrase on the Internet and provide suggestions to lessen the impact of information overload. The drawback of such engines is that they are biased and are addressing a generic audience thus students still require a good searching strategy to find information relevant to the domain under study. Having an effective searching strategy includes having good knowledge of the domain being searched since this will help to build effective search keyphrases that will lead to more accurate search results. Unfortunately, students may lack such domain knowledge for various reasons, for example; they just enrolled in the module being studied, missed some lectures or keywords mentioned during a lecture. This research is aiming to help students by exposing them to keyphrases pertinent to their domain.

This research is proposing a collaborative framework that uses a Google Chrome Extension to collect students' browsing data and provide a remote server that uses various algorithmic approaches to aggregate results. For a given student search, the framework provides suggestions related to the domain under study. In addition, the data collected is aggregated and a report generated by the system can help lecturers to learn more about their students' searching strategies.

Collecting keyphrases can lead to processing and sharing sensitive data. In order to ensure students' privacy data that can lead to identify the student is not stored in the database and students are identified by a Globally Unique Identifier (GUID) known only to the student.

The framework functionality and operation are evaluated and compared with commercially existing systems performance benchmarks. At various stages through the development life cycle of this research, volunteering participants provided evaluation to ensure the effectiveness of the proposed system to aid their engagement with relevant resources. In addition, content validity and quality of suggestions are validated by lecturers and domain experts.

10. Author/s: Paul Oatt

Title: Responding to the housing crisis and regulatory skills shortage: to meet the demand for local housing authorities and better regulatory enforcement.
Department: Natural Science

The programme title is Doctorate in Professional Studies in Environment (Regulatory Enforcement: Housing). As an insider-researcher I'm concerned with policies and working practices amongst regulatory enforcement officers within regulatory housing enforcement, (Oatt, 2020).

Deskilling of Local Authority regulatory workforces, less funding and resources forced changes to management working practices, (CIEH 2021). Over three years one in seven councils failed to prosecute criminal landlords managing properties known to be indecent, employing 'informal actions' instead, (Wall, 2018). Over the next decade, the UK requires 27,000 new private rented homes annually to accommodate 1.8 million households, (Evans and Hall-Harris, 2022), increasing the need for consistent, robust national regulatory housing strategies enforced by competent officers. The GLA commissioned work-based learning from Middlesex University, for which I am the module leader, intended to upskill new officers knowledge and capacity to inspect, assess and enforce.

My overarching research question is: What lessons can be learned from the disparate and developing implementation processes of local authority regulatory enforcement models for the private rented sector? Using literature review, policy analysis and interviews I will examine enforcement officer's differing autonomous approaches towards regulation, encapsulating policy elements, effects on public health and insight into officers' perspectives for identification of future training needs.

Intended research outcomes are to produce contributory findings useful to national and local government policymakers to produce consistent housing enforcement policies and strategies across local authority boundaries. To Identify existing disciplinary and interdisciplinary knowledge gaps and improve work-based training and learning outcomes.

11. Author/s: Jiaqing Xu,
Anthony Turner and Chris
Bishop

Title: A Systematic Review of the Different Calculation Methods for Measuring Jump Height During the Countermovement and Drop Jump Tests
Department: Sports Science

The height obtained during the countermovement jump (CMJ) and drop jump (DJ) tests have been measured by numerous studies using different calculation methods and pieces of equipment. However, the vast differences in calculation methods and equipment used have resulted in notable discrepancies in jump height being reported. The primary aim of this systematic review was to examine the available literature pertaining to the different calculation methods to estimate the jump height during the CMJ and DJ. A systematic review of the literature was undertaken using the SPORTDiscus, Medline, CINAHL, and PubMed electronic databases, with all articles required to meet specified criteria based on the quality scoring system. Twenty-one articles met the inclusion criteria, relating various calculation methods and equipment employed when measuring jump height in either of these two tests. The flight time and jump and reach methods provide practitioners the jump height data in the shortest time, but their accuracy is affected by numerous factors (e.g., participant conditions or equipment sensitivity). The impulse-momentum method provides as reliable jump height as the reference motion capture systems and requires less integration process than the double integration method. However, further research is warranted to investigate the reliability of each calculation method under different equipment settings. Our findings indicated that using the impulse-momentum method via the force

platform is the most appropriate way for the jump height measures, and it is preferred to use this method as the reference standard for between method comparisons.

12. Author/s: Cephas Mpungu	Title: Enforcing Digital Forensics Readiness in Wireless Medical Networks Using Artificial Intelligence. Department: Computer Science
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The Covid-19 Pandemic was catastrophic for almost every organisation. This forced many organisations, especially healthcare, to hastily restructure their business operation models through the development and adaptation of systems that support remote working. Cybercriminals on the other hand embraced this opportunity to maximize, leverage and execute more attacks. Most of these attacks were targeted at Wireless medical networks to exfiltrate sensitive data in form of vaccine-related research and personal medical records. Wireless Medical Networks(WMNs) are connections/communications initiated between medical devices without the use of network cables or wires. WMNs use radio-wave communication which makes them more susceptible to attacks compared to wired medical networks. The National Cyber Security Centre (NCSC) cited increased cyberattacks like phishing, SQL injections, zero-day exploits, malware, fraudulent websites and hacking during the lockdowns. The reason for this was that business organisations invested little towards securing remote-work underlying technologies. In the advent of the aforementioned attacks, it is imperative that an organization's Incident Response team is well prepared to launch a digital forensics investigation. This needs to be done systemically and formally and so every organisation should be undoubtedly placed to carry out such investigations (at minimal cost or interruption to its day-to-day business) by having Digital Forensics Readiness (DFR). DFR is an integral part of an organisation's compliance with data protection requirements, especially to aid in data breach investigations and also denotes an organisation's good corporate governance and due diligence. This presentation focuses on the development of a proactive, secure, and streamlined approach to DFR using Artificial intelligence(AI) at the SIEM(Security Information and Event Management) level, among other recommendations. The presentation first discusses threats to wireless medical networks. It then undertakes a systematic review of previously proposed digital forensics frameworks and identifies challenges. Finally, it proposes a novel conceptual framework for Digital Forensics Readiness (DFR) for wireless medical networks that (aims to) addresses the challenges using AI. The framework contributes to the enforcement of evidential data integrity whilst also securing wireless networks. Wireless medical networks will be used as a case study but the conceptual framework can be applied to other domains.

13. Author/s: Vijay Simha Reddy Chennareddy (9184)	Title: Extracting the Information from Legal Documents by using CNNs & BERT-Based model Department: Computer Science
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Deep Learning and Transformer-based models have revolutionized NLP (Natural Language Processing). These models are typically initially trained with Wikipedia and other newspaper data. We are here studying the problem of Legal NER and extracting the information from the legal documents obtained from the BAILII Court of Appeal database. Despite the advancements in NLP and Deep Learning, there are still several challenges and limitations associated with the Legal Domain, such as domain-specificity, ambiguity (Lexical ambiguity, Semantic ambiguity, and Syntactic ambiguity), and Contextuality.

A particular concern will be the extraction of causal reasoning as an indicator of legal bias – we will therefore work towards a bespoke transformer solution to this end. As a baseline, we initially use 50 self-annotated documents with up to 40 annotation tags for each document as a dataset for training CNNs (Convolutional Neural Networks), Transfer Learning, and BERT Model (Bidirectional Encoder Representations from Transformers) to extract key information from criminal documents.