UCD DUBLIN

UCD College of Social
Sciences and Law

Advancing and Transforming Society
through Digital Technologies

A Research Showcase of Social Science Perspectives

Wednesday 26th April
09:30 - 13:00
Moot Court,
UCD Sutherland School of Law

**REGISTRATION
ESSENTIAL**

Eventbrite

UCD College of Social Sciences and Law

Advancing and Transforming Society
Through Digital Technologies

A Research Showcase of Social Science Perspectives

Digital technologies are ubiquitous: they are essential for communication and work, they are embedded in appliances, balloons and satellites, and large-scale infrastructure, and they are increasingly making decisions about what we read, watch, listen to, and invest in. AI-assisted technologies and AI-generated texts, images, music, and other content may bring more unprecedented changes in the near future. These large-scale digital transformations across history are brought about by social contexts as much as moments of material invention by scientists and technicians.

Digital transformations, especially as they become more embedded in our lives and work, are as much social and cultural as they are technical, requiring critical and engaged social science research to understand their implications and design more careful futures.

This CoSSL Research Showcase will highlight ongoing research on the University Strategic Theme of 'Transforming through Digital Technology'. Research across the College demonstrates that digital technologies, as they themselves transform rapidly, are also powerful tools for transforming society.

There will be research presentations addressing this theme, including but not limited to the following topics:

- Design of digital technology
- Ethical issues
- Health impact
- Societal impact
- Policy impact
- Environmental impact
- Behavioural implications
- Artificial intelligence and machine-learning
- Advances of research methodologies through digital technology
- Digital tools for social science research and archiving
- Educational impact
- Digital content and storytelling
- Digital materialities
- Social media and big data

Our aim is to showcase the vast range of research being undertaken across our College under this theme, to stimulate discussion, and explore interdisciplinary and collaborative research opportunities.

Programme

	09.30	**Opening Address** | Prof Padraig Cunningham, School of Computer Science and Chair of 'Transforming Through Digital Technology' University Strategic Theme
GROUP A	09.35	**Digital archaeology and infrastructure in Ireland** | Dr Stephen Davis, Archaeology
	9.40	**Digitising the historical records of Irish education** | Prof Deirdre Raftery, Education
	9.45	**Highlighting local heritage through digital approaches** | CUPHAT Team, Geography
	9.50	**Transforming maths education through digital games** | Dr Flavia H. Santos, Psychology
	9.55	Q & A
	10.05	Coffee break
GROUP B	10.20	**Can ❤️s change minds? Social media endorsements and policy preferences** | Dr Margaret Samahita, Economics
	10.25	**Virtual Reality as the Catalyst for a Novel Partnership Model in Initial Teacher Education: ITE Subject Methods Tutors' Perspectives on the Island of Ireland** | Dr Rachel Farrell, Education
	10.30	**Regulating mass surveillance** | Assoc Prof TJ McIntyre, Law
	10.35	**The Platformisation of Scholarly Information** | Dr Lai Ma, Information and Communication Studies
	10.40	Q & A
GROUP C	10.50	**Technology and social media use in autistic adolescents with intellectual disabilities and relations to their social skills, social vulnerability and parent concerns** | Dr Katie Gilligan-Lee, Psychology
	10.55	**Cyberwise - Cyber Resilience Education across the continuum of education** | Dr Rachel Farrell, Education
	11.00	**Sociology of Humans and Machines in the Digital Age** | Assoc Prof Taha Yasseri, Sociology
	11.05	**Public responses to the use of AI to diagnose mental illness** | Dr Cliodhna O'Connor, Psychology
	11.10	Q & A
	11.20	Coffee break
GROUP D	11.35	**Digital Social Contacts (DSC) in ESS10 (European Social Survey Round 10)** | Dr Ebru Isikli, Social Policy, Social Work, Social Justice
	11.40	**Shelter in Place; Lebanese Refugee Non-Formal Emergency Remote Education Following the 4th of August Beirut Port Blast, the COVID-19 Pandemic, and the Lebanese Financial Crisis** | Dr Morten Greaves, Education
	11.45	**XAI Analysis of Online Activism to Capture Integration in Irish Society through Twitter** | Dr Arjumand Younus, Sociology
	11.50	**Online learning going large: data and insights from a large online programme in UCD (National Training Programme for Special Needs Assistants)** | Dr Mags Liddy, Phyllis Clegg, Liam Fogarty with William Kinsella, Suja Somanadhan, Catriona Delaney, Maebh Comyn - Education
	11.55	Q & A
GROUP E	12.05	**Using a simulated learning environment to support preservice science teachers to teach English as Additional Language learners** | Dr Karen Maye and Dr Rachel Farrell, Education
	12.10	**Post-surveillance Capitalism: a socio-technical transitions approach** | Dr James Steinhoff, Information and Communication Studies
	12.15	**Can online backlash stifle free speech?** | Dr Margaret Samahita, Economics
	12.20	**The use of VR in the MFL (language) classroom : a comparative study** Dr Eileen Bowman, Education
	12.25	Q & A
	12.35	**Researching and Regulating the Digital Transformation: UCD Centre for Digital Policy** Dr Elizabeth Farries, Director, UCD Centre for Digital Policy
	12.45	Lunch

Advancing and Transforming Society
Through Digital Technologies
A Research Showcase of Social Science Perspectives
Speaker Abstracts Group A

Dr Stephen Davis

Archaeology

Digital archaeology and infrastructure in Ireland

Digital methods are increasingly used in advance of major infrastructural projects in Ireland as a means to identify, assess and characterise archaeological sites and landscapes. Focusing on Airborne Laser Scanning (LiDAR) within a GIS environment, these methods have allowed the identification of hundreds of previously unknown archaeological sites over the last decade. This presentation will provide a few results from these projects and consider how the next decade of digital archaeology might look.

Prof Deirdre Raftery

Education

Digitising the historical records of Irish education

This presentation showcases three funded digitisation projects, conducted in collaboration with UCD Digital Library. Two were funded by the IRC, and one by UCD Decade of Commemorations/UCD Research. The presentation includes a preview of the IRC-funded digitisation of registration records of Carysfort College 1880-1922, a higher education & training college for teachers (the buildings are now part of UCD campus). Digitising the records facilitates research into the social history of Irish education, and also supports the research interests of local historians & genealogists.

CUPHAT Team

Geography

Highlighting local heritage through digital approaches

The CUPHAT (Coastal Uplands: Heritage and Tourism) project is working with digital technologies to increase awareness of the unique and shared aspects of the heritages of the communities in the Wicklow Mountains and Blackstairs Mountains in Ireland and the Cambrian Mountains and Preseli Mountains in Wales. The project aims to develop regenerative forms of tourism, which embed principles of giving back to local communities. The range of digital approaches being applied are designed to support this aim. Through online citizen science platforms, digital oral history and folklore recording, digitisation of objects and artefacts, and the reconstruction of selected sites and landscapes, the project is bringing the local natural and cultural heritage to a tourist audience but also showcasing that shared heritage to the local communities itself. In doing so a renewed sense of local pride is emerging and it is reported that topophilia is increasing.

Dr Flavia H. Santos

Psychology

Transforming maths education through digital games

This multi-dimensional project is funded by the Irish Research Council, led by the UCD in partnership with TUD. It includes a list of deliverables such as a RCT study (in progress), a video cartoon for children and parents (completed) and a workshop for maths teachers (completed). Data gathered show the intricate relationship between parents, teachers and children concerning maths anxiety, one of the main causes of low numeracy. The digital game tested in our RCT study, developed by TUD partners, seems to support the development of specific maths in primary school children. This research will inform policymakers about best practices to reduce maths anxiety in primary education (policy paper published by the Geary Institute). Maths Anxiety has a detrimental impact on Leaving Certificate performance and has hampered Irish students in international large scale assessments, such as OECD among others.

Speaker Abstracts Group B

Dr Margaret Samahita
Economics

Can ❤s change minds? Social media endorsements and policy preferences

We study the effect of social media endorsement metrics on COVID-19 policy attitudes, finding that the effect is concentrated amongst active social media users. Seeing more "likes" on a post results in policy attitudes moving towards that promoted in the post. Heterogeneity analysis indicates that endorsement metrics can exacerbate political polarisation.

Dr Rachel Farrell
Education

Virtual Reality as the Catalyst for a Novel Partnership Model in Initial Teacher Education: ITE Subject Methods Tutors' Perspectives on the Island of Ireland

This small-scale study explores the attitudes of fifty initial teacher education (ITE) subject methods tutors towards the use of virtual reality (VR) in education and considers whether VR could be a catalyst for reviewing the partnership model within ITE programmes. In addition, this study offers a novel solution to ITE tutors' challenges when managing their own technological and pedagogical development alongside preparing student teachers for technology-enhanced learning (TEL). Building on previous research on ITE tutors' use of TEL across the island of Ireland, this paper discusses the synergy between the cognitive apprenticeship model and reverse mentoring that upends the classic co-operating teacher/student teacher hierarchy and positions all partners in ITE programmes as learning leaders at key points in the partnership process.

Assoc Prof TJ McIntyre
Law

Regulating mass surveillance

This research deals with technological developments allowing indiscriminate surveillance of the general population by states and legal responses challenging implementations of these measures.

Dr Lai Ma
Information and Communication Studies

The Platformisation of Scholarly Information

Synthesising the major findings in business studies, political economy, and software studies, platformisation is understood as "the penetration of the infrastructures, economic processes, and governmental frameworks of platforms in different economic sectors and spheres of life". While many studies have looked at the mechanisms in which social media platforms collect and commodify personal data and user contents, little attention has been paid to research infrastructures that are owned and controlled by a few commercial players who trace, track, monitor, and benchmark researchers, research institutions, and research activities. These collected data are then packaged as products and services for strategic planning and improving research performance and productivity and sold right back to research institutions and universities. In this talk, I will discuss the current developments of commercial research infrastructures and the potential counter-measures.

Speaker Abstracts Group C

Dr Katie Gilligan-Lee
Psychology

Technology and social media use in autistic adolescents with intellectual disabilities and relations to their social skills, social vulnerability and parent concerns

The research investigates digital technology and social media use and associations with social skills, social vulnerability and parental concern in teenagers with Autism and an intellectual disability. Data was collected using an online survey completed by both the young people themselves and by their parents/caregivers.

Dr Rachel Farrell
Education

Cyberwise - Cyber Resilience Education across the continuum of education

This is a design based research project funded by the Department of the Environment Climate and Communications. Underpinned by the theory of expansive learning in education, this small-scale qualitative study comprises a purposive sample of 20 post-primary across Ireland who are engaging in the pilot implementation of a junior cycle short course on cybersecurity. Working with a multi-disciplinary team of cybersecurity and education specialists, teachers are being supported to design and implement age and stage appropriate lessons and resources (see www.cyberwise.ie) in a post-primary school setting, with a view to developing attitudes, skills and values that promote cyber resilience in a world becoming increasing vulnerable to cybercrime and mid/dis-information fuelled by developments in social media and AI.

Assoc Prof Taha Yasseri
Sociology

Sociology of Humans and Machines in the Digital Age

Associate Professor Taha Yasseri's research focuses on developing the sociology of the hybrid environments that our societies are embedded in today. Despite centuries of sociological studies, our understanding of the complex patterns underlying our societal behaviour remains incomplete. The emergence of digital technologies, particularly semi-intelligent and intelligent machines, has presented new challenges for sociologists. He employs a range of research techniques including behavioural experimentation, agent-based modelling, machine learning and advanced statistics to reveal the complex mechanisms involved in forming and reshaping our future societies. His research generates first-hand evidence that advances our understanding of human-machine systems and will inform emerging policies that govern such systems, which are very much needed.

Dr Cliodhna O'Connor
Psychology

Public responses to the use of AI to diagnose mental illness

There is increasing research and clinical attention to the prospect of using artificial intelligence tools to diagnose mental illness. Yet AI diagnosis has many ethical challenges, and replacement of familiar diagnostic categories with AI-enabled precision diagnoses may have unanticipated consequences for how people understand mental illness and view those who experience it. This study provides first insights into societal and ethical responses to AI diagnosis of mental illness, using representative samples of US and UK participants (N=1000)

Speaker Abstracts Group D

Dr Ebru Isikli
Social Policy, Social Work, Social Justice

Digital Social Contacts (DSC) in ESS10 (European Social Survey Round 10)

Concerns about digital social contacts in the family and at work include a loss of family or workplace solidarity as well as increased distractions from family or work interactions and tasks. The goal is to introduce potential researchers to the ESS10 special module on digitalization, specifically in the context of pandemics. UCD conducted the research in 2022 with the support of the IRC.

Dr Morten Greaves
Education

Shelter in Place; Lebanese Refugee Non-Formal Emergency Remote Education Following the 4th of August Beirut Port Blast, the COVID-19 Pandemic, and the Lebanese Financial Crisis

This qualitative research explores the use of mobile phone technology and social media applications to provide Syrian refugees with access to non-formal learning content during the COVID-19 pandemic in Lebanon. The study positions itself within the field of global emergency education, and provides a detailed overview of the current academic literature in this area. The study details how, despite the overlapping effects of COVID-19, a catastrophic currency collapse in Lebanon, and the 2020 Beirut port blast, a minimum standard of non-formal education was maintained remotely. The paper describes the genesis of the approach, the challenges faced, and the contingent solutions developed in the field in real-time. Additionally, the paper analyses lessons learned and potential best practices that could be impactful in other emergency education situations, where instruction must be provided remotely. The aim of the study is to better understand how digital technology can be harnessed to provide education to displaced children during emergencies.

Dr Arjumand Younus
Sociology

XAI Analysis of Online Activism to Capture Integration in Irish Society through Twitter

Online activism over Twitter has assumed a multidimensional nature, especially in societies with abundant multicultural identities. In this paper, we pursue a case study of Ireland's Twitter landscape and specifically migrant and native activists on this platform. We aim to capture the level to which immigrants are integrated into Irish society and study the similarities and differences between their characteristic patterns by delving into the features that play a significant role in classifying a Twitterer as a migrant or a native. A study such as ours can provide a window into the level of integration and harmony in society. Our approach enables policymakers to further their understanding of multicultural communities and use this to inform their decision-making processes.

Dr Mags Liddy
Education

Phyllis Clegg
Education

Liam Fogarty
Education

with William Kinsella, Suja Somanadhan, Catriona Delaney, Maebh Comyn
Education

Online learning going large: data and insights from a large online programme in UCD (National Training Programme for Special Needs Assistants)

UCD School of Education, in conjunction with UCD School of Nursing, Midwifery and Health Systems, was selected to design and deliver a national online training programme for Special Needs Assistants (SNAs). The aim is to deliver the training programme to 3,500 SNAs working in Irish schools. To date, three cohorts of students have engaged with the programme: 500 in Cohort 1; and 1000 students in Cohort 2 and Cohort 3.The entire programme is delivered online and aims to incorporate best practices such as Universal Design for Learning through its five modules, live webinars and assessment strategies.The development of the programme is research-informed, with each cohort of students completing evaluations that shape the ongoing design and enhancement of delivery. This presentation will describe the programme and the data collection and analysis processes, discussing how insights from research have informed programme development.

Speaker Abstracts Group E

Dr Karen Maye

Education

Dr Rachel Farrell

Education

Using a simulated learning environment to support preservice science teachers to teach English as Additional Language learners

The number of students with English as an Additional Language (EAL) is increasing in Ireland. However, teachers often feel unprepared to assist EAL learners in using the language of science (Starbuck, 2018). To address this need, this study explored the use of a simulated learning environment (TeachLivE™) as a cost-effective, safe and scalable solution to Initial Teacher Education, by drawing on practice-based theories of learning-to-teach, and particularly providing an opportunity to practice leading scientific classroom discussions with EAL students. We designed a 15-minute classroom interaction task that preservice science teachers (n=10) completed with a bilingual student and a monolingual student within the simulated classroom. Participants completed a survey and were interviewed about their experience of using the simulated classroom.

Dr James Steinhoff

Information and Communication Studies

Post-surveillance Capitalism: a socio-technical transitions approach

Contemporary data-intensive economies rely on widespread surveillance of users of digital platforms to collect the data they rely on, such that "surveillance capitalism" is now the theoretical orthodoxy. However, a broad social backlash against surveillance and other dubious data practices on the part of Big Tech companies is driving interest in the possibility of obtaining data by means other than surveillance. It has recently been shown, for instance, that some kinds of data can by synthesized computationally. An adequate theory of what kind of economy this might entail has yet to be provided. As well, the implications of a switch from surveillance to data synthesis have not been explored. My project aims to generate both of these outputs by plotting whether and how a socio-technical transition to a post-surveillance economy could happen.

Dr Margaret Samahita

Economics

Can online backlash stifle free speech?

We study whether higher awareness of cancel culture and fear of online backlash on social media results in opinion conformity or lower willingness to voice controversial opinion. The results suggest that heightened awareness about cancel culture may, in certain subgroups, increase individuals' conviction in their own opinion and the perceived benefit of making this public.

Dr Eileen Bowman

Education

The use of VR in the MFL (language) classroom: a comparative study

This small scale qualitative study seeks to evaluate the pedagogical efficacy of digital tools, namely VR (Virtual Reality) in second-language acquisition with a particular focus on inclusion of all learners. The UDL framework will be the theoretical frame underpinning this small-scale study. This research is based on a comparative study of two post-primary MFL classes, one in France and one in Ireland.

Dr Elizabeth Farries, Director

UCD Centre for Digital Policy

Researching and Regulating the Digital Transformation: UCD Centre for Digital Policy

Today's showcase has established how digital technologies underpin all areas of society and the economy, from work to leisure to political participation. However, as technological developments in the field of digital and data science accelerate, balancing the rights of citizens while investing in the possibilities afforded by digital technologies remains tricky for legislators, policy makers, and the private sector alike. Members of the UCD Centre for Digital Policy believe that policy making and evaluation must be deliberative, emergent, and iterative, with sociocultural values at their core. Today's talk will share our agenda's priorities: To develop effective and evidence-based interventions into formal and informal regulation and institutional digital policies, to maintain such policies over time, and to foreground urgent issues of sustainability, equity, and human rights.