



NUI Galway
OÉ Gaillimh

**J.E. Cairnes School of
Business & Economics**



The 20th IFIP Conference e-Business, e-Services, and e-Society I3E2021



I3E2021

GALWAY, IRELAND | 1-3 SEPTEMBER 2021

Responsible AI and Analytics for an Ethical and Inclusive Digitised Society

(A virtual conference including live keynote presentations, paper presentations, and networking events)

www.I3E2021.com



NUI Galway
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**Whitaker
Institute**



(Version: 6th August 2021)

Conference Program

[All events are Irish Standard Time (GMT+1)]

Dear Participant,

We look forward to e-meeting you at The 20th IFIP Conference e-Business, e-Services, and e-Society I3E 2021 conference this September. We hope you thoroughly enjoy the keynote and author presentations, as well as the social events. As this schedule has been designed to accommodate keynote speakers and authors from different time zones, some papers might not be categorised under the same track as listed in the conference proceedings.

Abbreviations: SP = Short Paper (10 min presentation + 5 min Q&A), FP = Full Paper (15 min presentation + 5 min Q&A))

Thank you for your understanding and support.

Regards

Denis & Anastasia
Conference Chairs

Day 1: Wednesday 1st September 2021

9.30 - 10.00	Welcome Address from Conference Chairs, Head of School of Business & Economics (Professor Alma McCarthy), and IFIP 6.11 Committee		
10.00 - 11.00	Keynote title: <i>Algorithmic Bias: The Australian Government's Online Compliance Intervention System and Its Fallout</i> Keynote speaker: Professor Katina Michael, Arizona State University, USA. Virtual Room: Oak		
11.00 - 11.15	VIRTUAL COFFEE HOUSE		
11.15 - 12.45	Session 1A Adopting AI for Digital Transformation & Public Good Chair: Efpraxia D. Zamani Virtual Room: Oak	Session 1B AI & Analytics Decision Making Chair: Samrat Gupta Virtual Room: Hazel	Session 1C AI Philosophy, Ethics & Governance Chair: Vasiliki Koniakou Virtual Room: Willow
	(FP) <i>Affordances in human-chatbot interaction: a review of the literature</i> Morten Johan Mygland, Morten Schibbye, Ilias Pappas and Polyxeni Vassilakopoulou	(FP) <i>Wise Data-Driven Decision-Making</i> Morteza Namvar and Ali Intezari Harsini	(FP) <i>Towards Ecosystems for Responsible AI: Expectations on Sociotechnical Systems, Agendas and Networks in EU Documents</i> Matti Minkkinen, Markus Philipp Zimmer, and Matti Mäntymäki
	(FP) <i>AI in the Workplace: Exploring Emotions on Chatbot Use in IT services</i> Lorentsa Gkinko and Amany Elbanna	(FP) <i>Data-driven Collaborative Human-AI Decision Making</i> Gregoris Mentzas, Katerinan Lepenioti, Alexandros Bousdekis, and Dimitris Apostolou	(FP) <i>Analysing AI via Husserl & Kuhn: How a Phenomenological Approach to Artificial Intelligence Imposes a Paradigm Shift</i> Daire Boyle
	(FP) <i>Chatbots at Work: A Taxonomy of Chatbots in Organisations</i> Lorentsa Gkinko and Amany Elbanna	(FP) <i>Always Trust the Advice of AI in Difficulties? Perceptions Around AI in Decision Making</i> Amit Kumar Kushwaha, Ruchika Pharswan, and Arpan Kumar Kar	(FP) <i>The Ethical Implications of Lawtech</i> Rónán Kennedy
	(SP) <i>A Process Model of Artificial Intelligence Implementation Leading to Proper Decision Making</i> Mohammad Merhi	(SP) <i>Big Data Analytics Affordances for Social innovation: a Theoretical Framework</i> Ilias Pappas and Devinder Thapa	(FP) <i>Deploying AI Governance Practices: A Revelatory Case Study</i> Emmanouil Papagiannidis, Ida Merete Enholm, Christian Dremel, Patrick Mikalef, and John Krogstie
12.45 - 13.15	Lunch		
13.15 - 14.45	Session 2A Privacy & Transparency in a Digitised Society Chair: Polyxeni Vassilakopoulou Virtual Room: Oak	Session 2B Digital Enabled Sustainable Organisations & Societies Chair: Rogier van de Wetering Virtual Room: Hazel	Session 2C Digitised Supply Chains Chair: Mohammad Ovais Ahmad Virtual Room: Willow
	(FP) <i>Stop Ordering Machine Learning Algorithms by their Explainability! An Empirical Investigation of the Tradeoff between Performance and Explainability</i> Jonas Wanner, Lukas-Valentin Herm, Kai Heinrich, and Christian Janiesch	(FP) <i>Artificial Intelligence and the Evolution of Managerial Skills: An Exploratory Study</i> Laurent Giraud, Ali Zaher, Selena Hernandez, and Akram Al Ariss	(FP) <i>A Dynamic Capability Lens to Investigate Big Data Analytics and Supply Chain Agility: Antecedents and Outcomes</i> Trevor Cadden, Guangming Cao, Raymond Treacy, Ying Yang, and George Onofrei
	(FP) <i>A Systematic Review of Fairness in Artificial Intelligence Algorithms</i> Khensani Xivuri and Hossana Twinomurinzi	(FP) <i>The Diffusion of Innovation Experience: Leveraging the Human Factor to Improve Technological Adoption Within an Organisation</i> Gustav du Plessis and Hanlie Smuts	(FP) <i>The Effect of Data-driven Culture on Customer Development and Firm Performance: The Role of Supply Chain Information Sharing and Supply Chain Information Quality</i> Benjamin Agyei-Owusu, Mawuli, Kobla Amedofu, David Asamoah, and Caleb Amankwaa Kumi

	(SP) <i>Is Downloading this App Consistent with my Values? Conceptualizing a Value-Centered Privacy Assistant</i> Sarah E. Carter	(FP) <i>Exploring the Link Between Digitalization and Sustainable Development: Research Agendas</i> Yashoda Karki and Devinder Thapa	(FP) <i>A Review of AI in the Supply Chain Industry: Preliminary Findings</i> Conn Smyth, Denis Dennehy, and Samuel Fosso-Wamba
	(FP) <i>Operationalizing a Glass Box Approach by Means of Visualization: Applied to a GA-profiling Application</i> Niels Netten, Arjen Suijker, Mortaza S. Bargh, and Sunil Choenni	(FP) <i>Research Trends, Theories and Concepts on the Utilization of Digital Platforms in Agriculture: A Scoping Review</i> Abraham Sam and Sara Grobbelaar	(FP) <i>How Does IOS-enabled Business Intelligence Enhance Supply Chain Performance?</i> Caleb Amankwaa Kumi, David Asamoah, and Benjamin Agyei-Owusu
14.45 - 15.00	VIRTUAL COFFEE HOUSE		
15.00 - 16.30	Session 3A AI Philosophy, Ethics & Governance Chair: Rónán Kennedy Virtual Room: Oak	Session 3B <i>Adopting AI for Digital Transformation & Public Good</i> Chair: Ransome Bawack Virtual Room: Hazel	Session 3C Teaching & Learning Chair: Caleb Amankwaa Kumi Virtual Room: Willow
	(FP) <i>Ethics and AI Issues: Old Container with New Wine?</i> Fred Niederman and Elizabeth Baker	(FP) <i>Achieving Digital-driven Patient Agility in the Era of Big Data</i> Rogier Van de Wetering	(SP) <i>A Multi-Level Analysis of Mistrust/Trust Formation in Algorithmic Grading</i> Stephen Jackson and Niki Panteli
	(FP) <i>Governing Artificial Intelligence and Algorithmic Decision Making: Human Rights and Beyond</i> Vasiliki Koniakou	(FP) <i>Responsible Machine Learning Pilot Test Projects: A Medical Coding Case Study</i> Samantha Champagne and Janis Gogan	(SP) <i>Using Data Analytics to Detect Possible Collusion in a Multiple Choice Quiz Test</i> Michael Lang
	(FP) <i>Ethics in AI: A Software Developmental and Philosophical Perspective</i> Tanay Chowdhury and John Oredo	(FP) <i>COVID-19 Discrepancies Rising from Population Density in the USA</i> Mouwafac Sidaoui, Nicholas Abrams, and Abhishruti Adhikari	(FP) <i>Computational Numeracy (CN) for Under-prepared, Novice Programming Students</i> Carla Coetzee and Machdel Matthee
16.30	CLOSE		
16.30 - 17.30	IFIP 6.11 Committee Meeting , Virtual Room: Oak		
18.00 - 19.00	Social Event + Live Traditional Irish Sean-nós (old style) Dancing , Virtual Room: Oak		

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Day 2: Thursday 2nd September 2021

9.30 - 11.00	<p>Session 4A Digital Technologies & Organisational Capabilities Chair: Hanlie Smuts Virtual Room: Oak</p> <p><i>(FP) To Study BIM as Boundary Objects from the Knowledge-As-Practice Perspective in the Construction Project - A Conceptual Framework</i> Jing Wang, Pamela Abbott, and Efpraxia D. Zamani</p> <p><i>(FP) Understanding How Enterprise Architecture Contributes to Organizational Alignment</i> Hong Guo, Jingyue Li, Shang Gao, and Darja Smite</p> <p><i>(FP) How Dynamic Capabilities Enable Agility: The Mediating Role of Digital Project Benefits</i> Rogier Van de Wetering</p> <p><i>(FP) CT-based Inter-organisational Knowledge Exchange: A Narrative Literature Review Approach</i> Yuzhen Zhu, Efpraxia D. Zamani, Jorge Tiago Martins, and Ana Cristina Vasconcelos</p>	<p>Session 4B <i>Adopting AI for Digital Transformation & Public Good</i> Chair: Samrat Gupta Virtual Room: Hazel</p> <p><i>(FP) AI: Opportunities and Challenges - The Optimal Exploitation of (Telecom) Corporate Data</i> Polyxeni Palaiogeorgou, Christos A. Gizelis, Antonios Misargopoulos, Filippos Nikolopoulos-Gkamatsis, Antonis M. Christonasis, and Michalis Kefalogiannis</p> <p><i>(FP) Adopting Artificial Intelligence in the Saudi Arabian Public Sector: Preliminary Findings</i> Albandari Alshahrani, Denis Dennehy, and Matti Mäntymäki</p> <p><i>(FP) E-Procurement Practices in the Public Sector: The Case of an Inter-organizational Information System in Ghana</i> Michael Agbeko, John Effah, and Richard Boateng</p>	<p>Session 4C Customer Behavior & E-business Chair: Sachin Modgil Virtual Room: Willow</p> <p><i>(FP) Explaining the Network of Factors that Influence the Timing of and Decision to Upgrade Enterprise Systems</i> Candice Petersen and Lisa F. Seymour</p> <p><i>(FP) An Overview of the Application of Sentiment Analysis in Quality Function Deployment</i> Blessed Sarema and Stephen Matope</p> <p><i>(FP) Cash is King, isn't it? Payment Preferences and Switching Intentions of German Customers</i> Matthias Murawski, Serena Scomparin, and Markus Bick</p>
11.00 - 11.15	VIRTUAL COFFEE HOUSE		
11.15 - 12.45	<p>Session 5A Blockchain Chair: Trevor Cadden Virtual Room: Oak</p> <p><i>(FP) Blockchain in a Business Model: Exploring Benefits and Risks</i> Davit Marikyan, Savvas Papagiannidis, Omer Rana, and Rajiv Ranjan</p> <p><i>(FP) Key Characteristics to Create Optimized Blockchain Consensus Algorithms</i> Joshua Leo and Marie Hattingh</p> <p><i>(FP) A Systematic Literature Review of Blockchain Consensus Protocols</i> Sikho Luzipo and Aurna Gerber</p> <p><i>(FP) New Trend on the Block: How Blockchain Technology is Impacting the Fashion Industry from the Consumer's Perspective</i> Jean Noonan and Patrick Doran</p>	<p>Session 5B Social Media & Analytics Chair: Morteza Namvar Virtual Room: Hazel</p> <p><i>(FP) Modeling Malicious Behaviors and Fake News Dissemination on Social Networks</i> Kento Yoshikawa, Masatsugu Ichino, and Hiroshi Yoshiura</p> <p><i>(FP) Influencer is the New Recommender: Insights for Enhancing Social Recommender Systems</i> Ransome Bawack and Emilie Bonheure</p> <p><i>(FP) Developing Machine Learning Model for Predicting Social Media Induced Fake News</i> David Langley, Caoimhe Reidy, Mark Towey, Manisha, and Denis Dennehy</p> <p><i>(FP) A Deep Multi-modal Neural Network for the Identification of Hate Speech from Social Media</i> Gunjan Kumar, Jyoti Prakash Singh, and Abhinav Kumar</p>	<p>Session 5C Digital Technologies & Organisational Capabilities Chair: Sachin Modgil Virtual Room: Willow</p> <p><i>(FP) Industry 4.0 and Organisations: Key Organisational Capabilities</i> Stefan Smuts, Alta Van der Merwe, and Hanlie Smuts</p> <p><i>(FP) Gender Bias in AI: Implications for Managerial Practices</i> Ayesha Nadeem, Olivera Marjanovic, and Babak Abedin</p> <p><i>(FP) The Impact of Industry 4.0 on the Business Models of Small and Medium Enterprises: A Systematic Literature Review</i> Abdul Qadir Soondka and Hanlie Smuts</p> <p><i>(SP) Mining Segmentation Patterns Using E-commerce Retail Data: An Experience Report</i> Anastasia Griva and Denis Dennehy</p>
12.45 - 13.30	LUNCH		

13.30 - 14.30	<p>Keynote title: Misinformation in The Context of Covid-19 Pandemic: An Investigation of Harm Perceptions and Related Social Media Conversations</p> <p>Keynote speaker: Professor Raghav Rao University of Texas, USA. Virtual Room: Oak</p>
14.30 - 14.45	VIRTUAL COFFEE HOUSE
14.45 - 15.45	<p>Panel Session: <i>Ethical AI: Why should we be concerned?</i> Virtual Room: Oak</p> <p>Panel Chair: Dr. John Oredo, University of Nairobi, Kenya</p> <p>Panelists: Professor Joanna Bryson (Hertie School, Germany), Mrs. Vasiliki Koniakou (Turku University, Finland), Hon. Professor. Bill Schmarzo (Menlo College USA, & NUI Galway, Ireland), and Dr. David Kreps (NUI Galway, Ireland)</p>
15.45 - 16.00	VIRTUAL COFFEE HOUSE
16.00 - 16.30	Social Event + Best Paper Awards Virtual Room: Oak

Day 3: Friday 3rd September 2021

9.30 - 10.30	<p>Keynote title: Next Best Action in Digital Marketing Using Reinforcement Learning</p> <p>Keynote speaker: Professor Dinesh Kumar Indian Institute of Management Bangalore, India. Virtual Room: Oak</p>		
10.30 - 10.45	VIRTUAL TEA & COFFEE BREAK		
11.00 - 12.15	<p>Session 6A Social Media & Analytics Chair: Elvira Ismagilova Virtual Room: Oak</p>	<p>Session 6B Information Systems Development Chair: Marié Hattingh Virtual Room: Hazel</p>	<p>Session 6C Teaching & Learning Chair: Michael Lang Virtual Room: Willow</p>
	<p><i>(SP) Investigating the Dynamics of Polarization in Online Discourse during COVID-19 Pandemic</i> Samrat Gupta, Gaurav Jain, and Amit Anand Tiwari</p>	<p><i>(FP) Digital Transformation of Software Development: Implications for the Future of Work</i> Samuli Laato, Matti Mäntymäki, Teemu Birkstedt, A.K.M. Najmul Islam, and Sami Hyrynsalmi</p>	<p><i>(FP) Perceptions of Students for a Gamification Approach: Cities Skylines as a Pedagogical Tool in Urban Planning Education</i> Khan Tayyeb Ahmed and Xin Zhao</p>
	<p><i>(FP) #SDG13: Understanding Citizens Perspective Regarding Climate Change on Twitter</i> Prabhsimran Singh, Surleen Kaur, Yogesh K. Dwivedi, Sandeep Sharma, and Ravinder Singh Sawhney</p>	<p><i>(SP) Business Analytics Continuance in Software and Systems Development Projects - A Preliminary Analysis</i> Muhammad Ovais Ahmad, Iftikhar Ahmad, and Iqra Sadaf Khan</p>	<p><i>(FP) Impact of COVID-19 pandemic on E-participation of Fans in Sports Events</i> Vishal Mehra, Pooja Sarin, Prabhsimran Singh, Ravinder Singh Sawhney, and Arpan Kumar Kar</p>
	<p><i>(FP) Ecosystem of Social Media Listening Practices for Crisis Management</i> Lucia Castro Herrera, Tim A. Majchrzak, and Devinder Thapa</p>	<p><i>(FP) Artificial Intelligence (AI) Capabilities, Trust and Open Source Software Team Performance</i> Babu Veeresh Thummadi</p>	<p><i>(FP) Social Exclusion in Gamified Information Systems</i> Arthur van der Poll, Izak van Zyl, and Jan Hendrik Kroeze</p>
	<p><i>(FP) The Use of Elaboration Likelihood Model in eWOM Research: Literature Review and Weight-analysis</i> Elvira Ismagilova, Yogesh Dwivedi, and Nripendra Rana</p>		
12.15 - 13.00	About I3E 2022 & Final Remarks (Virtual Room: Oak)		