Venice, Italy

May 20-22

CADE 2019

Digital Economy Forum

Competitive Advantage in the Digital Economy Forum (CADE 2019)

Welcome

The digital economy is developing at an unprecedented pace worldwide, supported by advances in sensor technology, reduction in computation and storage costs and increased connectivity. It has been identified as the single most important driver of innovation, competitiveness and growth. This has led to major stakeholders, such as industry, academia and government investing heavily in research and development. However, realising maximum benefit from this revolution requires coordinated, interdisciplinary effort. To realise the potential of the digital economy requires addressing socio-technical challenges.

This year's 6th Competitive Advantage in the Digital Economy (CADE) Forum focuses on three broad but increasingly important areas of research: Smart Service Systems, Personal Data and Cyber Security. As always, CADE's unique format brings together multi-disciplinary thought leaders and researchers to present the latest thinking, research and context for realising competitive advantage in the digital economy. It is exciting to have such a wonderful group come together to listen to world-leading keynote presentations, plenary speakers and workshops in such an intimate and creative environment.

Professor Carsten Maple
Cyber Security Centre, WMG
University of Warwick

Social Media

We encourage you to share the conversation on social media using #CADE2019.

Accounts to follow:

@cyber_grp
@exeterindex
@hubofallthings
@IASwarwick
@UWEbusinesssch
@WMGWarwick

CADE 2019

Programme

Monday, 20th May

Time	Event
08:30 - 09:15	Arrival and Registration
09:15 - 09:30	Opening Remarks
09:30 - 10:15	Keynote Presentation by David Boyle
10:15 - 11:00	Keynote Presentation by Haitham Cruickshank
11:00 - 11:15	Break
11:15 - 13:20	Participant Presentations
11:15	Helen Oliver
11:40	Mona Ashok
12:05	Sumayya Jad
12:30	Steve Brewer
12:55	Sarah Fletcher
13:20 - 14:30	Lunch at Trattoria Storica
14:30 - 15:45	Participant Presentations
14:30	Kevin Ghirardello
14:55	Teegan Johnson
15:20	Zena Wood
15:45 - 16:00	Break
16:00-17:15	Participant Presentations (in parallel- workshop session on data trading: Mark Hooper and Julian Hamm)
16:00	Gaston LeBlanc
16:25	Steve Pearce
16:50	Scott E. Sampson
19:30	Dinner at Vecia Cavana

Tuesday, 21st May

Time	Event
09:00 - 09:10	Arrival
09:10 - 09:55	Keynote Presentation by Professor Irene Ng
09:55 - 10:40	Keynote Presentation by Hamed Haddadi
10:40 - 10:55	Break
10:55 - 13.00	Participant Presentations
10:55	Joo Hee Oh
11:20	Carlos Galera Zarco
11:45	Michael Brightman
12:10	Thierry Rayna
12:35	Zena Wood
13:00 - 13:15	Workshop photo
13:15 - 14:30	Lunch at Trattoria Storica
14:30 - 15:15	Keynote Presentation by Professor Carsten Maple
15:15 - 15:30	Break
15:30-17:10	Participant Presentations (in parallel- workshop session on data trading: Mark Hooper and Julian Hamm)
15:30	Aida Boukhris
15:55	Kyle Alves
16:20	Florian Maurer
16:45	Albrecht Fritzsche
19:30	Dinner at the Combo ('Crociferi')

Wednesday, 22nd May

Time	Event
09:00 - 09:10	Arrival
09:10 - 10:50	Participant Presentations
9:10	Alison Harper
9:35	Mark Elliott
10:00	Malkiat Thiarai
10:25	Nav Mustafee
10:50 - 11:05	Break
11:05 - 12:20	Participant Presentations
11:05	Mingwei Hsu
11:30	Ugur Ilker Atmaca
11:55	Christian Kurtz
12:20	Peter Michael Ward
12:45 - 13:00	Presentation of Awards and Closing Remarks

Participant Presentations

Monday

Session 1

11:15 **Participatory Design Fiction and the Wearable HAT, Chapter 2: Ethics Become Aesthetics**, Helen Oliver (The Alan Turing Institute/ University of Cambridge)

11:40 **Digital ethical issues a fad or fact?**, Mona Ashok (Henley Business School)

12:05 **Business Intelligence Maturity Model for Social Care Provision**, Sumayya Jad (University of Reading)

12:30 **Adding values to the digitalised food production supply chain**, Steve Brewer (University of Lincoln)

12:55 **A human factors approach for optimising user acceptance of digitally enhanced advanced services (DEAS)**, Sarah Fletcher (DEAS Network Plus/ Cranfield University)

Session 2

14:30 **Cyber Security of Smart Homes: Outline of the Domestic IoT Attack Surface**, Kevin Ghirardello (University of Warwick)

14:55 **Managing worker profile data security in personalised digital manufacturing systems to improve satisfaction and efficiency**, Teegan Johnson (Cranfield University)

15:20 **Improving Location-Based Services and Marketing through a Hybrid Model**, Dr Zena Wood (University of Greenwich) & Professor Irene Ng (University of Warwick)

Session 3

16:00 **The Joint Effects of Service Employees and Servicescape on Customer's Perception of Quality Improvement Efforts**, Nha Nguyen (Université de Moncton), Isabelle Brun (Université de Moncton) & Gaston LeBlanc (Université de Moncton)

16:25 **Digital Business Student Expectations: Closing the Service Quality Gap through Constructive Alignment and Unit Design**, Dr Steve Pearce (University of Bristol)

16:50 **Digital Transformation of Professional Service systems in Education and Healthcare**, Scott E. Sampson (Brigham Young University)

Tuesday

Session 4

10:55 **Revenue Sharing and User Engagement in Social Media: Theory and Evidence from YouTube**, Joo Hee Oh (Erasmus University Rotterdam)

11:20 **Assessing the role of smart services as an enabler of business model innovation in project-based firms**, Carlos Galera Zarco (Coventry University)

11:45 **Digital Business Models: (Lack of) Innovation in SME's**, Michael Brightman (University of Central Lancashire)

12:10 **Beyond the Hype- The Actual Impact of Blockchain on Business Models**, Thierry Rayna (École Polytechnique and CNRS, Innovation Interdisciplinary Institute), Ludmila Striukova (SKEMA Business School), Sebastien Manchon (ENS Paris-Saclay) & Jeremy Cohen (Imperial College London)

12:35 **Accelerating the adoption of Digitally Enhanced Advanced Services (DEAS) in the UK**, Zena Wood (University of Greenwich), Phil Godsiff (University of Exeter) & Roger Maull (University of Exeter)

Session 5

15:30 **Dynamic role of resources in smart service systems- Applying actor-network theory to service platform modularity**, Aida Boukhris (Friedrich-Alexander-Universität Erlangen-Nürnberg) & Albrecht Fritzsche Friedrich-Alexander-Universität Erlangen-Nürnberg)

15:55 **The Emergence of New Service Process Types Supported by Digital Technologies**, Kyle Alves (University of the West of England), Phil Davies (Henley Business School) & Phil Godsiff (University of Exeter)

16:20 **Development and design of enhanced levels of organizational robustness and resilience into service systems: research in progress**, Florian Maurer (Voralberg University of Applied Sciences), Ulrike Lechner (Universität der Bundeswehr München) & Albrecht Fritzsche (Friedrich-Alexander University Erlangen-Nuremberg)

16:45 **Design rules for the liquefaction of resources on digital platforms- towards a general model**, Albrecht Fritzsche ((Friedrich-Alexander University Erlangen-Nuremberg)

Wednesday

Session 6

09:10 **An application of Predictive and Prescriptive Analytics for Proactive Service Recovery in Emergency Departments**, Alison Harper (University of Exeter) & Navonil Mustafee (University of Exeter)

09:35 **The impact of step-driven currency generation on physical activity behaviour change**, Mark T. Elliott (University of Warwick), Felicia Eck (University of Warwick), Brieze Read (University of Warwick), Rachel Wright (University of Warwick), Egor Khmelev (Sweatco Ltd), Oleg Fomenko (Sweatco Ltd.) & Anton Derlyatka (Sweatco Ltd)

10:00 **A study of data continuity in Children's Social Care**, Malkiat Thiarai (University of Warwick/ Birmingham City Council)

10:25 **NHSquicker: Shaping Demand for Urgent and Emergency Care through Digital Nudges and Real-Time Data**, Navonil Mustafee (University of Exeter), John Powell (University of Exeter) & Alison Harper (University of Exeter)

Session 7

11:05 **Managing Personalization-Privacy Paradox of Digital Services: A Systematic Literature Review**, Mingwei Hsu (University of the West of England), Alex Kharlamov (University of the West of England) & Glenn Parry (University of the West of England)

11:30 **Use of Privacy-preserving Techniques to Reduce the Impact of Cyber-attacks on Information Loss**, Ugur Ilker Atmaca (University of Warwick)

11:55 **Governing Information Privacy in Dynamic Service Ecosystems**, Christian Kurtz (University of Hamburg), Martin Semmann (University of Hamburg) & Tilo Böhmann (University of Hamburg)

12:20 **Towards a process view of Service-Dominant Logic**, Peter Michael Ward (University of Warwick)

Keynote Speakers

David Boyle

Customer Insights Director, Harrods

David is passionate about helping businesses to build analytics-driven decision making to help them make quicker, smarter and bolder decisions. He leads customer strategy and insights at Harrods, the biggest and most iconic department store in Europe. He has previously built global analytics and insight capabilities for a number of leading global entertainment businesses covering television (the BBC), book publishing (HarperCollins Publishers) and the music industry (EMI Music), helping to drive each organization's decision making at all levels. He builds on experiences working to build analytics for global retailers as well as political campaigns in the US and UK, in philanthropy and in strategy consulting.

Haitham Cruickshank

Reader at the Institute for Communication Systems (ICS), University of Surrey

Haitham is experience researcher and worked several UK, EU and ESA security related projects. He has been the main author on several ETSI specifications on Intelligent Transport Systems (ITS) privacy and broadband satellite network security architectures. This includes work on 5G and satellite network integration will enable large scale deployment of ITS, maximizing network performance and providing security and privacy to users despite the large amount of personal data sharing in this system. He has over 163 papers; including 34 refereed journals, 120 conferences, 4 books chapters and 5 IETF/ETSI standards. He is a member of the IEEE Satellite and Space Communications Committee. Also he is a chartered engineer and corporate member of the IEE in UK.

Research Interests: Network, user and IoT privacy and security, Block Chain Technologies (BCT) for key management for ITS future network architecture in mobile, satellite and Internet.

Hamed Haddadi

Senior Lecturer & Deputy Director of Research
Dyson School of Design Engineering at The Faculty of Engineering, Imperial College London

Hamed is a Senior Lecturer (~Associate Professor) and the Deputy Director of Research at the Dyson School of Design Engineering at The Faculty of Engineering, Imperial College London. He leads the Systems and Algorithms Laboratory and is an Academic Fellow of the Data Science Institute. He is also a Visiting Professor at Brave Software. He is interested in User-Centered Systems, IoT, Applied Machine Learning, and Data Security & Privacy. He enjoys designing and building systems that enable better use of our digital footprint, while respecting users' privacy. He is also broadly interested in sensing applications and Human-Data Interaction. He studied for BEng/MSc/PhD at University College London. He was a postdoctoral researcher at Max Planck Institute for Software Systems in Germany, and a postdoctoral research fellow at Department of Pharmacology, University of Cambridge and The Royal Veterinary College, University of London, followed by few years as a Lecturer and consequently Senior Lecturer in Digital Media at Queen Mary University of London. He has spent time working and collaborating with Intel Research, Microsoft Research, AT&T Research, Telefonica, and Sony Europe. When not in the lab, he prefers to be on a ski slope or in a kayak.

Research Interests: User centred systems, Internet of Things, Applied machine learning, Data security and privacy, and Human-data interaction.

Carsten Maple

Professor of Cyber Systems Engineering & Director of Research in Cyber Security
WMG, University of Warwick

Carsten has an international research reputation having published over 200 peer reviewed papers and is co-author of the UK Security Breach Investigations Report 2010, supported by the Serious Organised Crime Agency and the Police Central e-crime Unit. His research has attracted millions of pounds in funding and has been widely reported through the media. He currently Principal Investigator (PI) at the EPSRC/GCHQ Academic Centre of Excellence in Cyber Security, the local PI on the UK Research Hub for Cyber Security of the Internet of Things, PETRAS, and FAIRSPACE, the UK Research Hub for Future AI and Robotics in Space as well as co-investigator on the CARMA project. He is a fellow of the Alan Turing Institute.

Research Interests: Authentication, privacy, the value of information and cyber-physical systems.

Irene CL Ng

**Irene
CL Ng**

**Professor of
Marketing and
Service Systems
and Director of the
International Institute
of Product and
Service Innovation
WMG, University of
Warwick**

A business (IO) economist through her doctoral training, Irene's research lies in the trans-disciplinary understanding of value and new business models. She has received global recognition for her work including several ESRC fellowship appointments, and is currently an ESRC/InnovateUK Innovation Caucus Thought Leader. Irene has been involved in several government-funded research projects in the digital economy; she is currently PI of the EPSRC-funded HAT Living Labs/CONTRIVE project. She was PI of the £ 1.2m RCUK-funded HAT project, and a Co-I on the £1.5m RCUK NEMODE Network+ project. Irene has published numerous articles in the domain of management, marketing, engineering, information systems, economics, education and sociology and is the author of the highly-acclaimed Value and Worth: Creating New Markets in the Digital Economy, published by Cambridge University Press. An entrepreneur and academic, Irene is passionate about the link between practice and research, and advises digital business startups.

Research Interests: Personal data, Internet-of-Things, the digital economy trans-disciplinary understanding of value; creating, designing, pricing, contracting and innovating based on value, embedded within new economic and business models of complex service systems

Supporters

Hub of All Things (HAT)

The HAT (Hub of All Things) microserver is a personal data account. A cloud-based evolution of the smartphone, the laptop, and the desktop PC, it gives every Internet user the opportunity to claim legal data rights ownership over their personal data.
Apps and websites built on the HAT draw from their users' personal information through simple-to-use open APIs, effectively decentralising personal data storage around the user. They make personal data exchange and distributed, private AI accessible to people, companies, and governments for an improved digital economy and data mobility.
Organisations and governments need a better technological, legal and economic model for the combination and use of personal data. The opportunities in machine learning and personalisation are growing more valuable every day, and as the business models of the Internet respond to evolutions in our societal and regulatory attitudes to personal data, this technology will increasingly be required to support the development of sophisticated, rich data applications. The HAT is these applications' opportunity to build affordably, responsibly, and ethically in the 21st century economy.
https://www.hubofallthings.com/

Cyber Security Global Research Priority, University of Warwick

The Cyber Security Global Research Priority project was set up by the University of Warwick to address some of the most challenging problems facing the world today. To address such a significant issue effectively requires multidisciplinary research; Cyber Security is recognised as an area involving technology, people and processes.
The University of Warwick is one of the few Russell Group universities with excellence in cyber security across both science and social science, with relevant research being undertaken across the University.
The project supports cross-departmental collaboration, enabling researchers across Warwick as a whole to work together across departmental and disciplinary boundaries.
https://warwick.ac.uk/research/priorities/cyber/

Initiative in the Digital Economy at Exeter (INDEX)

Our London-based multidisciplinary research faculty works closely with public and private organisations to help them understand, challenge, and create a new value in the Digital age. INDEX delivers substantive impact through a blend of academic outputs, practice-focused studies, targeted experiments, and problem-focused learning and development engagements. INDEX is collaborative, multi-disciplinary, and works at the intersection of social science and data science, to build deep insights in data intelligence, digital transformation, platform business models and digital technologies. INDEX creates social value, competitiveness and innovative capability via three streams of activity – academic research; industry Engagement; public policy influence and impact. INDEX uses its research portfolio of over £3million, to provide practical insights and tools to manage the effects of digital disruption.
https://exeterindex.org/

Institute of Advanced Studies (IAS), University of Warwick

Established in 2007, the Warwick Institute of Advanced Study (IAS) is dedicated to enriching Warwick University's research environment by supporting its academics, hosting a number of international visitors and enhancing the experience of postgraduate students and early career scholars. IAS has become an important part of the university, representing all faculties and departments, supporting collaboration across disciplines and representing Warwick both nationally and internationally. IAS has supported innovative research at Warwick and interdisciplinary collaborations across all its faculties. In the past few years, the IAS has expanded its postdoctoral community and widened engagement with a number of Warwick's strategically projects.
**https://warwick.ac.uk/fac/cross_fac/ias**

University of the West of England (UWE), Faculty of Business and Law

The University of the West of England (UWE) Faculty of Business and Law comprises Bristol Business School and Bristol Law School. We deliver high quality teaching and research with real world impact to shape higher education and research policy for the benefit of our students, business and civic partners.
https://www1.uwe.ac.uk/bl/

Getting in touch
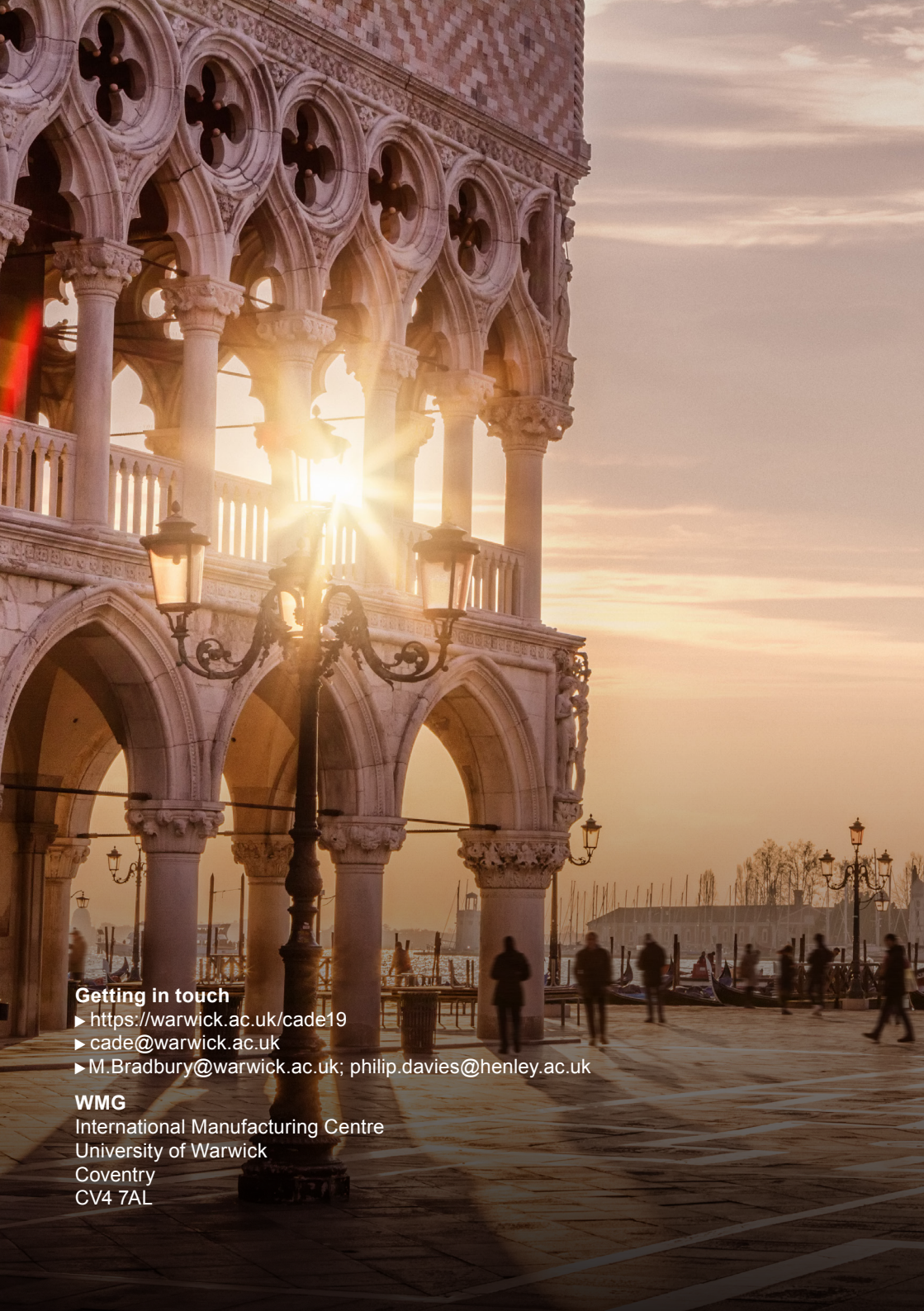
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