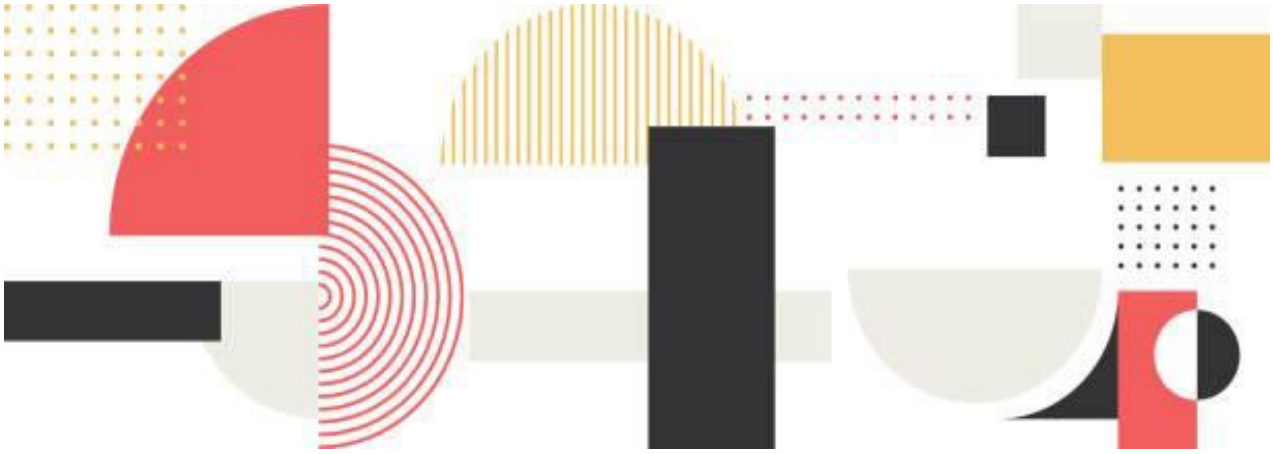
FACIAL RECOGNITION IN THE MODERN STATE



INTERNATIONAL CONFERENCE

15 SEPTEMBER 2022

ZOOM

PROGRAMME

***Times in UTC+2 /CEST**

9.00-10.00 WELCOME AND KEYNOTE ADDRESSES

Welcome and Introduction
Law Institute of the Lithuanian Centre for Social Sciences, Lithuania

Keynote Address: Automated FRT as a Technology of Governance
Mark Andrejevic, Monash University, Australia

Keynote Address: The Limits of Law: Data Privacy and FRT
Orla Lynskey, London School of Economics, UK

Chairs: *Monika Zalnieriute & Rita Matulionyte*

10.00-11.00 PANEL 1: SOCIAL AND TECHNICAL ASPECTS OF FRT

FRT: Key Issues and Emerging Concerns
Chris O'Neill, Monash University, Australia

History and Development of FRT: Science and Technology Perspective
Simon Taylor, UNSW Sydney, Australia

FRT 101: Technical Insights
Ali Akbari, KPMG, Australia

Chair: *Rita Matulionyte*

11.00 -12.40 PANEL 2: LEGAL & SOCIETAL CHALLENGES OF FRT

In Search of Transparent and Explainable FRT
Rita Matulionyte, Macquarie University, Australia, and Law Institute of the Lithuanian Centre for Social Sciences, Lithuania

FRT and Privacy: Some Conceptual Problems
Jake Goldenfein, University of Melbourne, Australia

Discrimination and Bias in FRT
Monique Mann, Deakin University, Australia
Marcus Smith, Charles Sturt University, Australia

Eroding Political Protests: FRT and Public Space Surveillance
Monika Zalnieriute, UNSW Sydney, Australia, and Law Institute of the Lithuanian Centre for Social Sciences, Lithuania

Faces of War: Russia's Invasion of Ukraine and Military Use of FRT
Agne Limante, Law Institute of the Lithuanian Centre for Social Sciences, Lithuania

Chair: *Egle Kavoliunaite-Ragauskiene*

12.40-1.15 Lunch Break

1.15-2.00 Panel 3: Asia-Pacific Perspectives on FRT

Regulating FRT in China
Jyh-An Lee, Chinese University of Hong Kong, Hong Kong SAR and
Peng Zhou, Chinese University of Hong Kong, Hong Kong SAR

Principled Government Use of FRT: A View from Australia and New Zealand
Nessa Lynch, Victoria University of Wellington, New Zealand

Chair: *Agne Limante*

2.00-2.30 Keynote Address

FRT and the Renegotiation of Public and Private Space
Milton Mueller, Georgia Tech, USA

Chair: *Monika Zalnieriute*

2.30-3.30 Panel 4: FRT in the European Union

Government Use of FRT under European Law
Simone Kuhlmann, Hamburg University, Germany and
Hans-Heinrich Trute, Hamburg University, Germany

Time for Hard Bans in the EU: Failed Attempts and Promising FRT Initiatives
Paul de Hert, Free University of Brussels, Belgium, and University Tilburg, the Netherlands, and
Georgios Bouchagiar, University of Luxembourg, Luxembourg, and Free University of Brussels, Belgium

Privacy, the EU *AI Act* and Police Use of FRT in European Jurisprudence
Nóra Ni Loideain, University of London, UK

Chair: *Jyh-An Lee*

3.30-3.40 Coffee Break

3.40-4.30 Panel 5: FRT in European Jurisdictions

FRT, Power and Government in Germany
Andreas Engel, Heidelberg University, Germany

Testing the Limits of Democracy: The Regulation of FRT in the UK
Giulia Gentile, London School of Economics, UK

FRT Regulation in Eastern Europe: A Case Study of Lithuania
Egle Kavoliunaite-Ragauskiene, Law Institute of the Lithuanian Centre for Social Sciences, Lithuania

Chair: *Nóra Ni Loideain*

4.30-5.30 Panel 6: Global Perspectives on FRT

Challenges in Regulating FRT in the USA
Justin (Gus) Hurwitz, University of Nebraska, USA

Regulating FRT in Brazil: Legal and Policy Perspectives
Walter Britto Gaspar, Fundação Getulio Vargas, Brazil
Nicolo Zingales, Fundação Getulio Vargas, Brazil

Digital Surveillance, FRT and Human Rights in Morocco
Sylvia I. Bergh, Erasmus University Rotterdam, the Netherlands

Chair: *Giulia Gentile*

5.30 Closing Remarks

ABSTRACTS AND BIOS

9.00-10.00 KEYNOTE ADDRESSES

Keynote Address: Automated FRT as a Technology of Governance
Mark Andrejevic, Monash University, Australia

This keynote address by Mark Andrejevic considers the connection between remote, passive biometric identification and automated forms of social sorting. Andrejevic argues that the prospect of widespread deployment of automated FRT transposes the model of individual level targeting and channeling from the online world into the offline one. This model anticipates regimes of governance that rely on the real-time reconfiguration of physical space via automated access controls and the channeling of both people and information. Andrejevic discusses case studies of targeted, customized governance drawing on the use of FRT during the COVID-19 pandemic and considers their implications for the broader deployment of the technology. This modality of governance forms of control associated with emerging technologies of virtual and augmented reality. The so-called 'metaverse,' for example, envisions the automated, individualised modulation of pseudo-physical environments: projecting logics of control associated with the online environment into three dimensions. Augmented reality pushes further, providing the physical world with an interactive overlay that loops back into physical modulations of the built environment.

Mark Andrejevic *is professor of Media and Communication at Monash University and a Chief Investigator at Australian Research Council Centre of Excellence on Automated Decision-Making and Society. Andrejevic is particularly interested in social forms of sorting and automated decision making associated with the online economy. He writes about digital technologies from a socio-cultural perspective, and his current research interests encompass digital media, surveillance and data mining in the digital era. With Neil Selwyn, Andrejevic is a co-author of Facial Recognition (Polity, 2022). Previous books include iSpy: Surveillance and Power in the Interactive Era, and Infoglut: How Too Much Information is Changing the Way We Think and Know. Twitter: @MarkAndrejevic*

Keynote Address: The Limits of Law: Data Privacy and FRT
Orla Lynskey, London School of Economics, UK

The use of facial recognition technology impinges upon an array of fundamental rights including the rights to equality, freedom of association and expression. However, it is the right to respect for private life, as given expression in legislative data privacy frameworks, that is most frequently invoked to act as a constraint on its use. Recent decisions of regulatory authorities in Greece, Italy and the UK find that the data processing operations of Clearview AI are incompatible with key data privacy provisions. Nevertheless, it remains unclear whether these decisions are sufficient to challenge the business model underpinning facial recognition technology as such, or whether the law may ultimately act as a legitimising framework for this business model. In keeping with the contributions of other participants, this opening contribution will critically analyse the limits of the law in relation to facial recognition technology.

Orla Lynskey *is an Associate Professor, having joined the LSE Law School in 2012, and a Visiting Professor at the College of Europe. She teaches and conducts research in the areas of data protection, technology regulation, digital rights and EU law. She holds an LLB (Law and French) from Trinity College Dublin, an LLM in EU Law from the College of Europe (Bruges) and a PhD from the University of Cambridge. Prior to completing her doctorate, she worked as an academic assistant at the College of Europe (Bruges) and in public and private competition law practice in Brussels. She is an editor of International Data Privacy Law (OUP) and a Modern Law Review editorial committee member. She is currently a member of the Ada Lovelace Institute's "Rethinking Data" working group.*

10.00-11.00 PANEL 1 – SOCIAL AND TECHNICAL ASPECTS OF FRT

1. FRT: Key Issues and Emerging Concerns

Chris O'Neill, Monash University, Australia

This presentation overviews the development of FRT over the past 50 years, and its recent emergence into everyday societal contexts and settings. The presentation contrasts the claimed benefits of FRT within computer vision research and the biometrics sector against growing calls within civil society for blanket bans on FRT in light its inherent discriminatory and oppressive character. The presentation argues the prospect of a complete ban is unlikely in light of growing commercial and computational imperatives to further integrate FRTs into the digital ecosystem. Academic discussions of FRT need to shift away from talk around the fundamental need (or not) for such technology, to dealing with the everyday implications of FRT as it is now already being rolled out across various aspects of everyday life. However, FRT should *not* be considered as a benign (or even welcome) addition to the current digital landscape. Initial applications of FRT often follow a pattern of 'mission creep' – that is, the tendency for intrusive and dubious applications to follow on from initially simple forms of adoption. FRT requires continued critical attention from scholars working in the social, cultural and legal domains. FRT needs to be subjected to strong open scrutiny, which should involve increased regulatory control, government oversight, and increased public understanding of the issues arising from what is set to be a defining technology of the next decade and beyond.

***Chris O'Neill** is a research fellow in the School of Media and Communication at Monash University, and a postdoctoral research fellow in the ARC Centre of Excellence for Automated Decision-Making and Society. Chris completed his PhD at the University of Melbourne in 2020. His doctoral research examined the analysis of body-sensing technologies, such as heart rate monitors and productivity sensors. He studied their historical development and contemporary impact in the workplace, the medical clinic, and the (smart) home. Chris's current research involves analysing the social and operational issues arising from the deployment of automated decision-making systems. He has a particular interest in the development of biometric technologies such as facial recognition cameras, and what implications such technologies might have for conceptions of identity and governance. Twitter: @internet_chris*

2. History and Development of FRT: Science and Technology Perspective

Simon Taylor, UNSW Sydney, Australia

This presentation introduces the reader to the history and development of FRT from the perspective of science and technologies studies. Beginning with traditionally accepted origins of FRT in 1964-65 developments by mathematician Woody Bledsloe in the US, Simon Taylor discusses how FRT builds on earlier applications in biometrics, imaging and statistical categorisation. Grounded in history of science and technology, the presentation demonstrates how critical aspects of FRT infrastructure are aided by

different scientific and cultural innovations i.e., mugshots in 18th century France; mathematical analysis of caste in 19th Century British India; computer vision innovations by Chinese and Israeli start-ups; and present-day algorithmic experiments on animals. This helps to deconstruct socio-political, mathematical, and material 'back-stage elements' of FRT, showing how these were incorporated into computation and continue to shape FRT today. Taylor's analysis lays a foundation for discussion of FRT as means for power over populations in the following presentations.

Simon Taylor *is a final-year PhD candidate at UNSW Sydney. He investigates social impact of biometrics, operational imaging, collaborative robotics and autonomous decision systems. He is a committee member in the working group IT-043-03 Trustworthiness in AI for SC42 in Standards Australia. Mr Taylor's work is pertinent to evidence building on computational acts or agents with social ramifications from facial recognition; legal claims in the attribution of error in use of sensing, surveillance, drones and semi-autonomous vehicles; and explanation of AI from stances of risk, causality, normative modelling and machine learning. Simon's work influenced multiple policy reports on new computational techniques to address cyber-security, privacy, and digital identity fields. Recent academic contributions include articles published in a Special Law Issue of AI & Society (2020), Science, Technology & Human Values (2021), alongside contributions to the 2020-2022 Mellon Sawyer Seminar, Histories of AI: A Genealogy of Power at Cambridge University, UK.*

3. FRT 101: Technical Insights

Ali Akbari, KPMG, Australia

The best way to anticipate the risks and concerns on trustworthiness of FRT, is to understand the way they operate and how such decision-making algorithms differ from other conventional IT systems. In this presentation, Ali Akbari provides a gentle introduction to various techniques, algorithms, and hardware that enables FRT. The presentation starts with an overview of artificial intelligence and computer vision as the building blocks of FRT and the source of some of its characteristics. Over the time FRT algorithms and techniques have evolved. At a high level, they can be categorized into two groups: those analytically looking into the facial component and those trying to holistically categorise the full image. Additionally, the advancement of the sensing devices has made them cheaper, more available, and easier to integrate into many devices around us which opens the doors to more possibilities. Akbari concludes the discussion by looking into various challenges involved with the introduced software and hardware choices, their implications on reliability of FRT, and some of the considerations to minimise such unwanted impacts.

Ali Akbari *is an industry expert with a PhD from Tokyo Institute of Technology and a specialty in computer vision. In the past 15 years he has combined the science aspect of AI with his background in robotics and software engineering to bring to life many commercial solutions around the APAC region. Currently he is a director at KPMG and the KPMG national AI capability lead. Ali specialises in processing images and textual unstructured data and application of AI/ML in operationalising real-time risk management solutions in various industries including manufacturing, finance, and the*

public sector. Among many other projects he has led the production of the first transactional analytics solution for automated credit risk decisions at Commonwealth Bank, the AI/ML intelligent targeting engine for Unisys's border protection solution, and the intelligent simulation engine of the largest biometrics' solution for a federal government organisation in Australia. In addition to technical expertise Ali has been involved in creating AI Ethics frameworks and is a member of Standards Australia AI Standardization Committee.

11.00 -12.40 PANEL 2: LEGAL & SOCIETAL CHALLENGES OF FRT

4. In Search of Transparent and Explainable FRT

Rita Matulionyte, Macquarie University, Australia, and Law Institute of the Lithuanian Centre for Social Sciences, Lithuania

One of the ethical and legal challenges related to government's use of FRT is lack of transparency and explainability of these technologies. This general AI opacity, or AI's 'black box' problem, is caused by technical, operational and legal reasons. One of the main legal obstacles that impede transparency and explainability are trade secrets. For example, in *Loomis v. Wisconsin* case, the defendant was denied access to the parameters of the algorithm used to assess the risk of recidivism arguing that the disclosure of the proprietary algorithm would violate trade secrets. This presentation will rely on data collected from interviews with various stakeholders, as well as comparative legal research methods, to discuss three questions: First, how AI transparency and explainability principles are understood and delineated by different stakeholders? Second, to which extent and in which situations FRT and its use by government institutions need to be transparent and explainable? Third, in which situations and to which extent trade secret protection over FRT algorithms might impede transparency and explainability of FRT and what legal and governance approaches could be applied to address this problem?

***Rita Matulionyte** is a Senior Lecturer at Macquarie Law School, Macquarie University, and a senior associated researcher at the Lithuanian Centre for Social Research. She is an international expert in intellectual property and technology law, with her most recent research focusing on legal and governance issues surrounding the use of Artificial Intelligence technologies. She currently leads projects on Government Use of Face Recognition Technologies: Legal Challenges and Possible Solutions and Towards More Transparent and Explainable Artificial Intelligence Technologies in Healthcare. Rita has a single-authored monograph on Law Applicable to Copyright (Edward Elgar) and over 40 research papers published in leading international journals (such as International Journal for Law and Information Technology, European Intellectual Property Review), and book papers published by leading international book publishers (Cambridge University Press, Edward Elgar).*

5. FRT and Privacy: Some Conceptual Problems

Jake Goldenfein, University of Melbourne, Australia

The ever-expanding use of FRT troubles some of the basic categories that inform the regulation of privacy and personal information: What is private and public? What is personal, sensitive or biometric data? What is an image? And what problem is 'privacy' trying to solve? Privacy is often referenced as a primary tool for addressing concerns related to the use of FRT by government and the privacy sector, but Jake Goldenfein challenges this premise by highlighting how privacy's sometimes clunky concepts and mechanisms struggle with many of the existing and emerging concerns around FRT.

***Jake Goldenfein** is a Senior Lecturer at Melbourne Law School and an Associate Investigator in the ARC Centre of Excellence for Automated Decision-Making and Society studying data governance, platform regulation, surveillance and legal theory. Previously, he has been a researcher at Cornell Tech, Cornell University, Melbourne Law School, New York Law School. He is the author of Monitoring Laws: Profiling and Identity in the World State (Cambridge University Press, 2019). Dr Goldenfein is an admitted lawyer in Australia, and previously practiced as a solicitor in an international firm in the areas of privacy and administrative law.*

6. Discrimination and Bias in FRT

Monique Mann, Deakin University, Australia
Marcus Smith, Charles Stuart University, Australia

This presentation examines how FRT fortifies bias and discrimination against historically marginalized groups, further concentrating state power over certain population groups. The authors start with a note that by defining FRT as "artificial" intelligence, we imply the objectivity that only machines can have, suggesting that such technologies are free from mistakes human eyes and minds often make, from stereotypes and prejudices we find hard to overcome. However, Mann and Smith suggest FRT is not a distant technology or an objective algorithm. It is a set of complex codes written by humans, and it follows the rules humans put in it. These rules can further the status quo and power relations by nurturing inequalities our societies continue to maintain. FRT is affected by racism, sexism and other structural oppression. This presentation discusses how such oppression and bias can be introduced into the FRT software and how it can negatively affect certain groups of people. The presentation also considers whether and how these FRT challenges, maintaining power imbalance between state and different population groups, can be overcome.

***Monique Mann** is a Senior Lecturer in Criminology and member of the Alfred Deakin Institute for Citizenship and Globalisation at Deakin University. Dr Mann is an Adjunct Researcher with the Law, Science, Technology and Society Research Centre at Vrije Universiteit Brussel. Mann's research expertise concerns three main interrelated lines of inquiry: (1) new technology for policing and surveillance, (2) human rights and social justice, and (3) governance and regulation. She is author of 'Politicising and Policing Organised Crime' (Routledge, 2020), 'Biometrics, Crime and Security' (Routledge, 2018), and editor of 'Good Data' (Institute of Network Cultures, 2019). Mann has*

contributed to advancing Australia's national research agenda through her activities not only as an academic and author, but also as an advocate, media commentator, and expert policy advisor. She is Vice Chair of the Australian Privacy Foundation and Vice President of Liberty Victoria.

***Marcus Smith** is an Associate Professor of Law at Charles Sturt University in Canberra, Australia. His qualifications include an MPhil from the University of Cambridge and LLM and PhD degrees from the Australian National University. Prior to entering academia, he worked in a range of Australian government research and policy agencies. He currently undertakes research, supervision and teaching across the field of technology law and regulation, but has a particular interest in law and policy associated with biometrics. His publications include 30 academic articles and five books, most recently, Technology Law (Cambridge University Press, 2021) and Biometric Identification, Law and Ethics (Springer, 2021).*

7. Eroding Political Protests: FRT and Public Space Surveillance

Monika Zalnieriute, UNSW Sydney, Australia, and Law Institute of the Lithuanian Centre for Social Sciences, Lithuania

Protest movements are gaining momentum across the world, with Extinction Rebellion, Black Lives Matter, and strong pro-democracy protests in Chile and Hong Kong taking centre stage. At the same time, many governments are increasing their surveillance capacities in the name of "protecting the public" and "addressing emergencies". Irrespective of whether these events and/or political strategies, framed as "emergencies", were the "war on terror", pro-democracy or antiracism protests during COVID-19, state resort to technology and increased surveillance as a tool to control the masses and population has been similar. In this presentation, Monika Zalnieriute focuses on the "chilling effect" of FRT use in public spaces on the right to peaceful assembly and political protest. Pointing to the absence of oversight and accountability mechanisms on government use of FRT, Zalnieriute draws attention to the crucial role of tech companies in assisting governments in public space surveillance and curtailing protests. She argues for hard human rights obligations to bind these companies and governments, to ensure that political movements and protests can flourish in the post-COVID-19 world.

***Monika Zalnieriute** is a Senior Lecturer and Australian Research Council Discovery Early Career Award Fellow in the Faculty of Law & Justice, UNSW Sydney, and a Senior Fellow at the Law Institute of the Lithuanian Social Sciences. Monika publishes widely, including in Modern Law Review, Harvard Journal of International Law, Cambridge Law Journal, American Journal of International Law. Her research on technology, public law and human rights and technology has been drawn upon by scholars and international organizations such as the Council of Europe, the World Bank, the European Parliament and WHO. Monika's work has also appeared in international media outlets such as the BBC and The Guardian, and has been translated into Mandarin, Russian and German.*

8. Faces of War: Russia's Invasion of Ukraine and Military Use of FRT

Agne Limante, Law Institute of the Lithuanian Centre for Social Sciences, Lithuania

Russia's invasion of Ukraine is the first major military conflict in which FRT is being used openly. Ukraine's Ministry of Defense publicly acknowledges its use of FRT to assist the identification of Russian soldiers killed in combat. The technology is also likely used in investigating people at checkpoints or during interrogations. We can expect FRT use for tracing individuals responsible for war crimes in the near future. For the Russian Federation, FRT has become a powerful tool to suppress anti-war protests and identify those taking part in them. In territories occupied by Russia, FRT is likely to be used to identify political opponents and people opposing Russian rule. This presentation focuses on the potential and risks of the use of FRT in a war situation. It discusses the advantages the FRT brings to both sides of the conflict and underlines the associated concerns. Agne Limante argues that despite human rights concerns, FRT is becoming a tool of military technology that is likely to spread and develop further for military purposes.

Agne Limante *is a Senior Researcher at the Lithuanian Centre for Social Sciences. She received an MA in EU law from King's College London (awarded with the Prize for Best MA Dissertation in EU Law) and a PhD from Vilnius University, Lithuania. Dr Limante is an expert in human rights and has published over 30 papers, including articles in national and international journals and book chapters. Dr Limante also has extensive experience working in international teams and conducting comparative research. She actively participates in EU co-funded projects, often leading the national team.*

1.15-2.00 PANEL 3: ASIA-PACIFIC PERSPECTIVES ON FRT

9. Regulating FRT in China

Jyh-An Lee, Chinese University of Hong Kong, Hong Kong SAR) and
Peng Zhou, Chinese University of Hong Kong, Hong Kong SAR

Both public and private sectors in China have actively deployed FRT in recent years. Government agencies have used FRT for various policy purposes ranging from crime investigation, enforcement of traffic regulations, to political surveillance. While the Chinese government's deployment of FRT is not subject to substantive legal restriction, the law governing FRT in the private sector has developed rapidly in the country. After providing an overall picture of government's use of FRT and potential policy concerns, this presentation will examine laws regulating FRT adopted by private entities and a recent landmark case. It will then analyze the challenges brought by FRT on the legal system in China, in particular the personal data protection regime.

Jyh-An Lee *is a Professor and Executive Director of the Centre for Financial Regulation and Economic Development (CFRED) at the Chinese University of Hong Kong Faculty of Law. He is an expert in intellectual property (IP) law and information law. Prof Lee has been featured on ABC News, BBC News, Bloomberg News, Financial Times, Fortune, South China Morning Post and Wall Street Journal as an expert on IP and Internet law. His work on IP has been cited by the US Court of Appeals*

for the Fifth Circuit and the UK High Court of Justice. Prior to his academic career, he was a practising lawyer in Taiwan, specialising in technology and business transactions.

***Peng Zhou** is a postgraduate student at the Faculty of Law of the Chinese University of Hong Kong (CUHK). Dr Zhour holds a PhD in Art History from CUHK, and a Bachelor of Engineering from UESTC, China. He also has a Master of Music from Yale University and a Bachelor of Music from Oberlin College, USA. Prior to his postgraduate studies, Zhou has practiced law in the People's Republic of China. His current research focuses on comparative analysis of data protection laws and AI, with a focus on China's digital governance and competition policy. In his work, Dr Zhou aims to explain factors and idiosyncrasies behind China's data regulation policy, in comparison to major digital economies around the globe, such as the EU and the USA.*

10. Principled Government Use of FRT: A View from Australia and New Zealand

Nessa Lynch, Victoria University of Wellington, New Zealand

FRT is a term used to describe a range of technologies involving processing of a person's facial image. FRT's main usages are verification, identification, categorisation and counting. A facial image is a biometric and though it may be collected from a distance, in public, and without the person's knowledge or consent, it remains an intrusion on the individual's privacy. FRT may enhance and speed up existing human capabilities (finding a person in video footage) or create new capabilities (detecting emotional states of people in crowds). The wide variety of use-cases means a varied spectrum of impact on individual and societal rights and interests ranging from consensual one-on-one identity verification (for example at the border), to widespread and intrusive live biometric tracking in public spaces. Factors such as who is operating the system, what the purposes are, whether there is independent authorisation or oversight, whether we have consented to the collection and processing of our facial image, and whether the benefits are proportionate to the impacts are all relevant in considering the appropriate uses of the technology.

This presentation reflects on the principled use and regulation of FRT in the public sector, with a focus on Australia and Aotearoa New Zealand. We draw on our experiences as scholars and from our involvement in oversight and regulatory mechanisms. Both states have seen significant growth in the use of FRT, but regulation remains patchwork. By comparison to other jurisdictions, human rights protections, and avenues for individual citizens to complain and seek redress remain insufficient.

***Nessa Lynch** is an Associate Professor at the Faculty of Law, Te Herenga Waka – Victoria University of Wellington, New Zealand. Her expertise is in youth justice, sentencing, and biometrics and state surveillance, particularly FRT. In 2019/2020, she led a Law Foundation funded team which produced a report Facial Recognition Technology – Towards a Legal and Ethical Framework, which has directly influenced government policy and public awareness of the risks and benefits of the technology in New Zealand. She is regularly called on for advice on ethical use of data and biometrics*

in the New Zealand public sector including recently carrying out an independent review of New Zealand Police's use and potential use of FRT, chairing the Data Ethics Advisory Group for the public sector and acting as an independent observer on the New Zealand Cross-Government Biometrics Group.

2.00-2.30 KEYNOTE ADDRESS

Keynote Address: FRT and the Renegotiation of Public and Private Space
Milton Mueller, Georgia Tech, USA

This talk will examine prior legal standards regarding what was private and what was public (drawing mostly on US law) and explore the way FRT is forcing us to redefine that boundary. This renegotiation is happening not only formally in legal decisions but more importantly through practical implementations of FRT and other biometric identification technologies. The talk will also try to discuss public v private not only as "spaces" but as the distinction between private consensual/contractual relations and public law.

Milton Mueller *is an internationally prominent scholar of political economy of information and communication. His work informs not only public policy but also science and technology studies, law, economics, communications, and international studies. His books Will the Internet Fragment? (Polity, 2017), Networks and States: The global politics of Internet governance (MIT Press, 2010) and Ruling the Root: Internet Governance and the Taming of Cyberspace (MIT Press, 2002) are acclaimed scholarly accounts of the global governance regime emerging around the Internet. Mueller's research employs the theoretical tools of institutional economics, STS and political economy, as well as historical, qualitative and quantitative methods. Milton is the co-founder and director of the Internet Governance Project (IGP), a policy analysis center for global Internet governance, which has played a prominent role in shaping global Internet policies and institutions such as ICANN and the Internet Governance Forum. Dr. Mueller has also been a practical institution-builder in the scholarly world, where he led the creation of the Global Internet Governance Academic Network (GigaNet), an international association of scholars.*

2.30-3.30 PANEL 4: FRT IN THE EUROPEAN UNION

11. Government Use of FRT under European Law

Simone Kuhlmann, Hamburg University, Germany and
Hans-Heinrich Trute, Hamburg University, Germany

This presentation examines regulation of FRT use by security and other public authorities within the EU. First, the presentation scrutinizes the purposes and conditions under which FRT can be used in the public sector under the *EU Directive 2016/680* and the European fundamental rights framework. Second, the European Commission's recently proposed *Artificial Intelligence Act* is analysed, with the focus on the rules related to the use of facial recognition technologies. The presentation examines whether they are compatible with the European fundamental rights requirements and whether such pervasive surveillance is proportionate to the benefits arising from findings gained by such technologies, as well as whether stricter regulation, e.g. a ban, is needed, as called for by the European Parliament. Finally, the presentation will provide an outlook on the risks that can arise beyond the use of FRT for identifying individuals by authorities. A growing number of studies, for instance, promise to identify individuals' personal attributes, such as their political or sexual orientation or their criminal tendencies, from facial appearance. Such assumptions can influence legal judgements, policy decisions or national security protocols. This can lead not merely to discrimination, but also to a restriction of the exercise of the basic fundamental rights, in particular if certain rights are denied or even sanctioned as a result of the inference of some characteristics.

Simone Kuhlmann *is a postdoctoral researcher at the Centre of Law in Digital Transformation at the Law Faculty of the University of Hamburg (UHH). She is the coordinator of the Graduate College 'Law and its Education in the Digital Transformation'. After she graduated from the University of Göttingen, Dr Kuhlmann worked as a research assistant at the Chair of Public Law, Media and Telecommunication Law at the Law Faculty of the UHH as well as at the law firm Taylor Wessing in the practice area Technology, Media & Telecoms. Her research focus is on knowledge generation based on data, in particular in the context of health care and security concerns, as well as Media Law and Public Law including the Law of Pandemics. She wrote her PhD thesis about the influence of the advertising market on the financing and nature of private broadcasting services.*

Hans-Heinrich Trute *is Professor of Public Law, Media- and Telecommunication Law at the Faculty of Law, University of Hamburg. He is currently Speaker of the Graduate College 'Law and its education in the digital transformation', Director of the Center for the Digital Transformation of Law, University of Hamburg, Faculty of Law, Co-Director of the Center for the Didactics of Legal Education, and chairman of the board of directors of the Albrecht Mendelssohn Bartholdy Graduate School of Law. Previously he held various academic positions: Fellow of the College for Advanced Studies in Berlin, Fellow of the Cluster of Excellence at the University of Konstanz, Member of*

the Research Institute for Public Administration Science, University of Speyer. His research focuses on Public Law, Legal Theory, Public Administration Science, Media- and Telecommunication Law, Law of Science, Law and Knowledge, and Digitalisation and the Law.

12. Time for Hard Bans in the EU: Failed Attempts and Promising FRT Initiatives

Paul de Hert, Free University of Brussels, Belgium / University Tilburg, the Netherlands, and
Georgios Bouchagiar, University of Luxembourg, Luxembourg / Free University of Brussels, Belgium

FRT are getting more and more intrusive in the EU. After initial implementations in schools or clubs, contemporary FRT systems are embedded within various devices, from personal smartphones to police-worn cameras. New trends, like state surveillance or authentication for physical/virtual access, raise concerns about stigmatisation, discrimination or risks to privacy and the protection of personal data. Despite its well-structured regime on the protection of personal data (as framed by the *General Data Protection Regulation* and the *Law Enforcement Directive*), the EU legislator has failed to draw clear prohibitive lines on concrete FRT implementations. The EU's abstract legal provisions, serving technological neutrality, appear to prejudice precision and foreseeability of the law, key elements of the legality principle. Similarly, recently proposed *Artificial Intelligence Act* fails to create a firm '*no*' to specific FRT uses. In 2021, EU citizens started the 'Civil society initiative for a ban on biometric mass surveillance practices' which calls on the European Commission to permanently ban biometric mass surveillance practices. This contribution finds this initiative promising, as part of a new development of bans in the EU. After discussing the EU legal framework –its strong elements, as well as its limitations– this presentation offers some ideas to effectively protect the surveilled. The proposals include clear '*no's*' to concrete risky FRT implementations; moratorium-techniques pushing the pause-button; and focus on substance via the combination of various areas of law.

Paul de Hert *is a Professor of Law at the Free University of Brussels, Belgium and Tilburg University, the Netherlands. His work addresses problems in the area of privacy & technology, human rights and criminal law. In his formative years, Prof de Hert studied law, philosophy and religious sciences (1985-1992). After a productive decade of research in areas such as policing, video surveillance, international cooperation in criminal affairs and international exchange of police information, he broadened his scope of interests and published a book on the European Convention on Human Rights (1998) and defended a doctorate in law in which he compared the constitutional strength of 18th and 20th century constitutionalism in the light of contemporary social control practices: Early Constitutionalism and Social Control: Liberal Democracy Hesitating between Rights Thinking and Liberty Thinking (2000, promoter: Prof Dr Bart De Schutter (VUB)). Prof De Hert is Director of the Research Group on Human Rights (FRC), Vice-Dean of the Faculty and former Director of the Research Group Law Science Technology & Society (LSTS), and of the Department of Interdisciplinary Studies of Law. He is board member of several Belgian, Dutch and other international scientific journals such as the Computer Law & Security Review, the Inter-American*

and European Human Rights Journal, and Criminal Law & Philosophy. He is co-editor in chief of the Supranational Criminal Law Series sand the New Journal of European Criminal Law. Since 2008 he has edited with Serge Gutwirth, Ronald Leenes and others annual books on data protection law (for Springer, now Hart) that, judging by sales numbers, quotations and downloads, have attracted a significant readership and have contributed to creating the legal academic discipline of data protection law. Prof De Hert is currently an editor of the Computers, Privacy and Data Protection series, now published by Hart.

Georgios Bouchagiar *is a doctoral researcher in criminal law and technology at the University of Luxembourg and the Free University of Brussels. He holds a Law degree (Athens Law School 2011), a Master of Science degree in Information Technology (High Honours, Ionian School of Informatics and Information Science 2018) and a Master of Laws degree in Law and Technology (with Distinction, Tilburg Institute for Law, Technology, and Society 2019). After an 8-year period of practicing information law, he entered academia. Since 2018, his professional experience has included tutoring and lecturing on information law and general principles of law (Ionian University 2018); research on information law and distributed ledger technology (University of Amsterdam/University of Antwerp 2018); practice on face recognition and spying technologies (Tilburg University 2019); and research on forensic DNA phenotyping (University of Luxembourg 2020-2021).*

13. Privacy, the EU *AI Act* and Police Use of FRT in European Jurisprudence

Nóra Ni Loideain, University of London, UK

This presentation examines the implications posed by FRT to the right to private life, as enshrined in Article 7 of the EU Charter of Fundamental Rights and Article 8 of the European Convention on Human Rights (ECHR). Doctrinal and comparative analysis will identify and examine the role and influence of the requirements and safeguards provided by these international human rights instruments, as interpreted in the relevant case law of the Court of Justice of the EU and the European Court of Human Rights. These standards will be considered in relation to the proposed *EU AI Act* and its provisions concerning the use of biometrics for law enforcement purposes. Lessons and insights will also be drawn from the world's first legal ruling in this area, namely the landmark UK Court of Appeal ruling of *Bridges v South Wales Wales* [2020] EWCA Civ 1058 which held the legal framework governing the use of live facial recognition by police to be incompatible with the legality requirements of Article 8 ECHR.

Nóra Ni Loideain *holds a BA, LLB, LLM from the National University of Ireland, Galway and PhD from the University of Cambridge, and is Director and Senior Lecturer in Law of the Information Law & Policy Centre, Institute of Advanced Legal Studies, University of London. Her research and publications focus on human rights and technology, particularly within the contexts of law enforcement and national security in EU and ECHR law. Her monograph EU Data Privacy Law and Serious Crime is forthcoming from Oxford University Press. Dr Ni Loideain holds the academic posts of Senior Research Fellow at the Faculty of Humanities, University of Johannesburg;*

Research Associate, Centre for Intellectual Property and Information Law, University of Cambridge; and Associate Fellow, Leverhulme Centre for the Future of Intelligence, University of Cambridge. She has also been a Visiting Lecturer in Law at King's College London, and Research Fellow and Affiliated Lecturer in Law at the University of Cambridge. In 2019, Dr Ni Loideain was appointed to the UK Home Office Biometrics and Forensics Ethics Group, which provides independent advice ensuring the robustness of evidence underpinning biometrics and forensics policy development for law enforcement and public security within the Home Office. She is a member of the Board of Trustees for the British and Irish Legal Information Institute and an editor of the leading journal International Data Privacy Law (Oxford University Press). Prior to her academic career, Dr Ni Loideain was a Legal and Policy Officer for the Office of the Director of Public Prosecutions of Ireland and clerked for the Irish Supreme Court. Her work has been cited and published by various leading institutions, including the BBC, Science, The Guardian, the House of Lords, and the United Nations.

3.40-4.30 PANEL 5: FRT IN EUROPEAN JURISDICTIONS

14. FRT, Power and Government in Germany
Andreas Engel, Heidelberg University, Germany

This presentation analyzes the legal framework for the use of FRT in the public sector in Germany, with a particular view on the pertinent data protection laws. FRT is already employed by public sector actors in Germany, e.g. in immigration and for the search in photographic records of arrestees. Moreover, a pilot study was conducted at a Berlin train station combining video surveillance and FRT. A legal basis is required for these real-world applications of face recognition technologies. The presentation discusses whether the pertinent national laws provide such legal basis and what limits they impose in Germany.

Andreas Engel *(Dr iur, LLM. (Yale)) is a lecturer (Akademischer Rat) at Heidelberg University. He is interested in the law's reaction to digitalisation, and is currently focusing on data protection and privacy, civil procedure and IP law. His pertinent writing includes an article and a longer co-authored contribution on patent law and AI. A second focus of his work is the field of private international law, in which he wrote his doctoral dissertation on international capital market liability at the Max Planck Institute for Comparative and International Private Law in Hamburg. Dr Engel has studied law at LMU Munich, New College, Oxford and Yale Law School and clerked at the German Constitutional Court.*

15. Testing the Limits of Democracy: The Regulation of FRT in the UK
Giulia Gentile, London School of Economics, UK

The deployment of FRT in law enforcement and private sector in the UK has tested the limits of the UK's democracy. On the one hand, the diffuse usage of this technology is devoid of a comprehensive statutory framework delineating rights, obligations, and accountability mechanisms in this field. Consequently, legal uncertainty has often

surrounded the deployment of FRT tools, both in the private and public sectors. On the other hand, privacy rights were consequently compressed, and concerns on the potential creation of an 'Orwellian' society surfaced. Against this background, in 2019 UK courts were seized to evaluate the lawfulness of the FRT law enforcement tools in the 2019 *Bridges v. South Wales Police* case. After lengthy litigation, the Appeal Court ruled in favour of the applicant, a civil rights campaigner who claimed that the active FRT deployed by the police at public gatherings infringed his rights to human dignity and privacy. Although the *Bridges v. South Wales Police* offered crucial guidance on the balancing of privacy and the lawful use of FRT in law enforcement, several ethical and legal questions stemming the UK regulatory approach to FRT still remain unsolved. For instance, for what purposes and in what contexts is it acceptable to use FRT to capture individual's image? What checks and balances should be in place to ensure fairness and transparency in the use of FRT? What accountability mechanisms should be established for different usages? This presentation addresses these questions and offers a threefold contribution to existing literature. First, it provides an overview of the UK FRT regulatory framework. Second, it critically analyses selected ethical and legal issues stemming from the FRT regulation in that jurisdiction. Third, it prospectively reflects on the evolution of the UK FRT legal framework.

Giulia Gentile *is Fellow in Law at the London School of Economics (LSE). Her research interests lie in EU constitutional law, the protection of EU citizens' rights in the post-Brexit era and the promotion of human rights within the digital environment. Dr Gentile joined LSE Law School in 2021, having previously worked as Lecturer and Postdoctoral Researcher at Maastricht University and as Visiting Lecturer at King's College London. She holds a PhD and LLM from King's College London and an LLB/MA from the University of Naples 'Federico II'. During her doctoral studies, she was awarded research scholarships by the Centre of European Law at King's College London and the Max Planck Institute of European Procedural Law (Luxembourg). Dr Gentile was a visiting researcher at the Centre de Droit Européen of the University Panthéon-Assas (Paris) and at the Max Planck Institute of European Procedural Law (Luxembourg). She is a co-editor of the first book on the role of non-doctrinal research methods in international legal scholarship (Edward Elgar, 2019), and her research has been published, inter alia, in the European Constitutional Law Review, the German Law Journal, the European Papers and the Review of European Administrative Law.*

16. FRT Regulation in Eastern Europe: A Case Study of Lithuania

Egle Kavoliunaite-Ragauskiene, Law Institute of the Lithuanian Centre of Social Sciences, Lithuania

Relying on interviews with different stakeholders, this presentation analyses the extent to which Lithuanian law enforcement agencies use FRT technologies and the legal framework that regulates such uses. While law enforcement agencies in Lithuania must adhere to European standards of FRT usage, especially those laid down in the Law Enforcement *Directive (EU) 2016/680,* Lithuania has its own national standards which transpose these requirements. The presentation examines the criteria used to determine the eligible purpose of FRT use, the transparency of such use, and the arguments used to justify the need of these technologies in Lithuania. The presentation

reviews public discourse surrounding the government use of FRT in Lithuanian media, by national NGOs and academics, and identifies the issues and threats by different stakeholders. In addition, the presentation discusses the existing institutional framework to control the government use of FRT, whether the powers and competences of existing institutions are sufficient for efficient control of such uses, and what improvements in the legal and organizational framework could be made. Finally, the presentation analyses compatibility of the Lithuanian framework governing FRT with the proposed EU *Artificial Intelligence Act* and proposes amendments for Lithuanian law.

Egle Kavoliunaite-Ragauskiene *is a Researcher at the Lithuanian Centre for Social Sciences. Since 2002 she has authored over 30 research papers and has worked on a wide range of issues in legal regulation, public administration, and policy making, including the Public Accountability Mechanisms (PAM) Initiative (2010, World Bank); the Global Integrity Report 2008 (2008, Global Integrity); as EU Profiler (2009, Roman Schuman Centre for Advanced Studies, European University Institute); the EUandI (2014, European University Institute); and the EU Member States' Consultations with Civil Society on European Policy Matters (2010, European University Institute). Dr Kavoliūnaitė-Ragauskienė lectured at Mykolas Romeris University (Vilnius, Lithuania, 2007-2011); Vytautas Magnus University (Kaunas, Lithuania, 2013), provided training to law enforcement officials under the Rising of the Anticorruption System project (Warsaw, Poland, 2013-2014); and to lawyers in the Academy of European Law (ERA) workshop 'Cross-border divorce and maintenance: Jurisdiction and applicable law' (13-15 May 2015, Vilnius, Lithuania).*

4.30-5.30 PANEL 6: GLOBAL PERSPECTIVES ON FRT

17. Challenges in Regulating FRT in the USA

Justin (Gus) Hurwitz, University of Nebraska, USA

This presentation discusses the current state of laws regulating FRTs in the USA. It begins by setting the stage for the discussion, presenting some of the unique aspects of regulation in the US and a background of the relevant technology. It then discusses the current status of FRT regulation in the USA, including general laws such as those that regulate the use of biometrics and those that more specifically target FRT such as those that prohibit the use of such technologies by law enforcement and state governments. The presentation concludes by considering likely future developments, including potential limits of or challenges to regulation of FRT.

Justin (Gus) Hurwitz *is a Professor of Law and the Menards Director of the Nebraska Governance and Technology Center at the University of Nebraska. His teaching and research focus is on the regulation of technology, with an emphasis on communications and information technologies. His work has been cited by regulators including the US Federal Communications Commission and the Federal Trade Commission and he has testified before committees of both the US Senate and House*

of Representatives. Prof Hurwitz received his law degree from the University of Chicago Law School and a Masters in Economics from George Mason University.

18. Regulating FRT in Brazil: Legal and Policy Perspectives

Walter Britto Gaspar, Fundação Getulio Vargas, Brazil
Nicolo Zingales, Fundação Getulio Vargas, Brazil

According to a study by Instituto Igarapé, Brazil now has over 37 cities using FRT in the public safety, transportation and border control sectors. Despite a number of Bills that have been recently discussed in the Brazilian Parliament, there is still no legislation addressing AI in general or FRT use specifically, and government institutions have to rely on a general legal framework, such as Brazilian General Data Protection Law (LGPD), the Brazilian Civil Rights Framework for the Internet, the Civil Code and even the Federal Constitution. This presentation examines the deficiencies of the current regulation of FRT in Brazil. It discusses whether LGPD rules allowing the use of FRT for public safety, national defence, state security, investigative activities and the repression of criminal activities are reasonable and justified. It demonstrates the current problems of the legislative framework by examining a recent decision by the Brazilian Institute for Consumer protection to fine a concessionary ViaQuatro for inappropriate use of FRT in São Paulo's subway system.

Walter B. Gaspar *is a researcher at the Centre for Technology and Society at FGV Law School. He is a PhD student in the Public Policies, Economy and Development programme at the Federal University of Rio de Janeiro, and holds a Master's degree in Public Health from the Social Medicine Insititute at the Rio de Janeiro State University. He's been the National Coordinator of Universities Allied for Essential Medicines in Brazil, worked in research projects with Fiocruz and Shuttleworth Foundation, among others, and published books and chapters on the overlap between science, technology and innovation in society.*

Nicolo Zingales *is Professor of Information Law and Regulation at the law school of the Fundação Getulio Vargas in Rio de Janeiro, where he coordinates the E-commerce research group. His work on digital rights spans across data governance, fundamental rights and platform regulation. He is a founding member of the MyData Global Network and lead of its Brazilian Hub, and editor of Medialaws. He is also an Affiliate Scholar at the Stanford Center for Internet and Society, a Research Associate at the Tilburg Institute for Law, Technology and Society and an Extramural Fellow at the Tilburg Law and Economics Center. He holds a JD from the University of Bologna and a PhD in international law and economics from Bocconi University.*

19. Digital Surveillance, FRT and Human Rights in Morocco

Sylvia I. Bergh, Erasmus University Rotterdam, the Netherlands

Surveillance technologies are becoming increasingly common as tools of governance in the global north and global south. Due to technological advances around AI such a computer vision, surveillance technologies are becoming cheaper and easier to use in everyday contexts. Typically developed in the global north and tested in the global south or at the 'periphery' of powerful actors, they are becoming key tools of governance in authoritarian contexts. One key element of surveillance technologies implemented in authoritarian contexts are facial recognition technologies (FRT). This presentation will explore the usage of FRT in Morocco as a tool of authoritarian governance. The article will look at two specific FRT use-cases, urban surveillance and border surveillance with original empirical data from the field. Based on this date, we will attempt to understand how FRT used in Morocco hinder or enable existing authoritarian practices. We will also attempt to understand the consequences for human rights and authoritarian governance of the widespread usage of FRT. In conclusion, the article will discuss what this means for the wider debate about the usage of FRTs for surveillance and authoritarian governance more broadly.

Sylvia I. Bergh *is a senior researcher at the Centre of Expertise on Global Governance at the Hague University of Applied Sciences (THUAS). She completed both a DPhil in Development Studies and MPhil in Modern Middle Eastern Studies at the University of Oxford, having obtained an MA in Arabic and International Relations from the University of St Andrews in Scotland. Sylvia has a keen interest in multi-level governance issues, and has published widely on state-society relations in the Middle East and North Africa region, including The Politics of Development in Morocco: Local Governance and Participation in North Africa (I.B. Tauris, 2017), and edited the book The Redeployment of State Power in the Southern Mediterranean: Implications of Neoliberal Reforms for Local Governance (London: Routledge, 2013). Before her academic career, Sylvia worked at the World Bank, in both the President's Office in Washington DC and the Morocco Country Office. She also regularly teaches and consults on evaluations of development projects and programs, and combines her position at THUAS with the position of Associate Professor in Development Management and Governance at the International Institute of Social Studies (ISS), Erasmus University Rotterdam, the Netherlands (focusing on MA and PhD supervision).*