

# **ASEAN Forum 2019: ASEAN and the Digital Revolution**

Friday 16 August 2019



THE UNIVERSITY OF  
**SYDNEY**  
—  
Sydney Southeast  
Asia Centre

## **Sydney Southeast Asia Centre**

*The Sydney Southeast Asia Centre is forging Australia's relationship with one of the world's fastest growing regions by educating students and building new partnerships with academics and governments based on research excellence.*

*With more than 500 academics across all faculties and schools working on and in Southeast Asia, the University of Sydney has one of the highest concentrations of regional expertise in the world.*

# Overview

## ASEAN and the Digital Revolution



Now in its seventh iteration, this year's ASEAN Forum focuses on the digital revolution in ASEAN.

The event will bring together leading academic thinkers, activists, practitioners and policy makers to discuss and debate the impact of the digital revolution and the challenges that ASEAN must overcome in order to reach its full digital potential.

The forum will focus on the key technical innovations and developments taking place in ASEAN countries, the social impact of the digital revolution, and the question of what – and who – is being left behind.

# Program

Time	Session	Details
11.30am	<i>Registration and coffee and tea on arrival</i>	
12.00pm	<b>Welcome</b>	<b>Dr Natali Pearson</b> <i>Sydney Southeast Asia Centre</i>
12.10pm	<b>Keynote address</b> <i>Law Foyer, Level 2</i>	<b>Dr Michael DiGregorio</b> <i>The Asia Foundation</i>
	Digital Technology, Climate Change and the Fourth Industrial Revolution	
1.00pm	<b>Lunch</b>	
2.00pm	<b>Breakout sessions (individual presentations)</b>	
2.00pm	<b>Technical Innovation and Development</b> <i>Law LT 104, Level 1</i>	<b>Social Impact of the Digital Revolution</b> <i>Law Lounge, Level 1</i>
	Chair: <b>Professor Heather Horst</b> <i>University of Sydney</i>	Chair: <b>Mr Kean Wong</b> <i>Independent journalist</i>
	• <b>Professor Budiman Minasny</b> <i>University of Sydney</i>	• <b>Dr Aim Sinpeng</b> <i>University of Sydney</i>
	• <b>Assoc Prof Jonathan Liebenau</b> <i>London School of Economics</i>	• <b>Mr Bart Hogeveen</b> <i>Australian Strategic Policy Institute</i>
	• <b>Mr Yan Naung Oak</b> <i>Phandeeyar Myanmar Innovation Lab</i>	• <b>Ms Kirsten Han</b> <i>New Naratif</i>
3.05pm	<b>Panel discussion: What – and Who – is Being Left Behind?</b> <i>Law Foyer, Level 2</i>	
	Chair: <b>Dr Damien Spry</b> , <i>University of South Australia</i>	
	• <b>Dr Crystal Abidin</b> , <i>Curtin University</i>	
	• <b>Professor Fleur Johns</b> , <i>UNSW Sydney</i>	
	• <b>Dr Petr Matous</b> , <i>University of Sydney</i>	
4.05pm	<b>Closing remarks and wrap-up</b>	<b>Mr Kean Wong</b> <i>Independent journalist</i>
4.15-4:45pm	<b>Afternoon tea</b>	

# Keynote Address

## Digital Technology, Climate Change and the Fourth Industrial Revolution

Previous industrial revolutions unleashed the power of fossil fuels, created consumer societies, and freed us from physical tethers through digital technologies. We are now approaching the next industrial revolution, the Fourth Industrial Revolution (4IR), characterized by a range of new technologies that fuse the biological, physical and digital worlds. ASEAN member states have embraced 4IR warily, mindful that they can neither fully prepare for nor prevent its transformative impacts. Over the past several years, The Asia Foundation has been trying to examine how 4IR's disruptive technologies might affect the development trajectories of advanced middle-income countries. More recently, a few of us have expanded that interest in 4IR to include the clear possibility of widespread social, political and ecological disruption caused by climate change or one of many crises it may trigger. None of us can see the future, but we can imagine possibilities and prepare as best as we can. Over the past several years my staff have developed projects that use digital financial services and new technologies, like blockchain, to empower vulnerable people and improve climate resilience. Our hope is that, by using these technologies, we may be able to help our partners in ASEAN to shape a future in which the challenges of climate change and 4IR can be met justly and equitably.

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**Dr Michael DiGregorio**  
Asia Foundation

Dr Michael R. DiGregorio is The Asia Foundation's Vietnam Country Representative. He has directed the Foundation's work in Vietnam since 2014, during which time he has led new projects and programs to address business related climate and disaster risk, city level climate resilience, green finance, blockchain traceability for sustainable agriculture, and digital finance for rural and remote farmers and small enterprise owners. Prior to joining The Asia Foundation, he served as a researcher within the Rockefeller Foundation's Asian Cities Climate Change Resilient Network. From 2002-2009, Dr DiGregorio was responsible for the Ford Foundation's education, media, arts and culture program in Vietnam. Dr DiGregorio also serves as an affiliate faculty member at the University of Hawaii.

**Twitter:** [@Asia\\_Foundation](https://twitter.com/Asia_Foundation)

# Breakout sessions

## Chair: Technical Innovation and Development



**Prof Heather Horst**  
University of Sydney

Heather Horst is Professor in the Department of Media in Communications at the University of Sydney. Prior to this, she was Professor in the School of Media and Communication and the Co-Founder of the Digital Ethnography Research Centre at RMIT University. Heather is a sociocultural anthropologist whose research focuses upon understanding how digital media, technology and other forms of material culture mediate relationships, communication, learning, mobility and our sense of being human. She has been a guest editor for special issues of many academic journals. Heather's current research explores transformations in the telecommunications industry and the emergence of new mobile media practices across the Asia-Pacific region.

**Twitter:**      @hahhh

## Chair: Social Impact of the Digital Revolution



**Mr Kean Wong**  
Independent

Kean Wong is a Malaysian journalist and editor, who's worked the past 30 years in Australia, Southeast Asia, Europe, and the United States for print, online, and broadcast media including the BBC, The Economist, the ABC, Malaysia's BFM Radio, and newspapers including The Sun of Malaysia, the Australian Financial Review and the Sydney Morning Herald. He has also written about Southeast Asian politics, media, and culture for various books and festivals, and spoken about these subjects at many universities around the world, such as Johns Hopkins University in the United States, and Humboldt University of Berlin in Germany. He's a contributing editor to the Australian National University's blog *NewMandala.org*, and is editor of the book *Rebirth: Reformasi, Resistance and Hope on the Road to a New Malaysia*.

**Twitter:**      @keanmwong

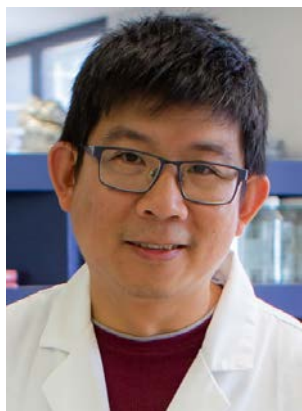
# Technical Innovation and Development

Chaired by Professor Heather Horst, University of Sydney

## Soil 4.0: Digital Soil Mapping and Contribution to Digital Agriculture

Smart farming Industry 4.0 is promoted as the future of Agriculture in Southeast Asia. Industry 4.0 specifies connectivity with sensors, computing, and artificial intelligence. This presentation describes the role of soil science in fulfilling the Fourth Industrial Revolution and Agriculture of the 21st century with particular focus on Southeast Asia. The presentation will describe digital soil information, online monitoring and rapid sensing in the field. We can now use satellite images to map rice fields and their growth stages in rice centre production in Indonesia and Malaysia. We applied machine learning methods to teach the computer how to recognise different rice growth stages from time series information. Compared with field data, we found that our method could measure rice extent with 96.5% accuracy. The method could also forecast areas planted to rice for up to two months. Soil 4.0 provides on-the-fly information through digital technology to support digital agriculture.

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**Prof Budiman Minasny**  
University of Sydney

Budiman Minasny is a Professor in soil-landscape modelling at the University of Sydney. He has an undergraduate degree from Universitas Sumatera Utara in Indonesia and a MAgr and PhD degrees in soil science from the University of Sydney. He was awarded various prestigious fellowships including the QEII and the Future Fellowships from the Australian Research Council. He is passionate about the role of soil in managing climate change, food, water, energy security and maintaining biodiversity. He has more than 150 international journal publications, won numerous awards, and is recognised as the leader in digital soil mapping and modelling. He is a member of the Sydney Southeast Asia Centre and the China Studies Centre.

**Twitter:**      @BudimanSoil



# Technical Innovation and Development

Chaired by Professor Heather Horst, University of Sydney

## Payment Systems and Financial Inclusion in Indonesia

Digital economy business models have offered opportunities to extend financial inclusion through the use of mobile banking, e-commerce, social media, data analytics and related technologies but their implementation experiences have varied widely. While they promise lowered operating costs and reduced entry barriers, they also challenge legacy banks, financial services regulators, telecommunications network operators and others to respond. In Indonesia, the majority state-owned Telkom Indonesia and Singapore Telecom operate mobile services through Telkomsel - an early mover in providing financial services to its approximately 200 million users through TCash. Regulated by the Financial Services Authority with the central bank and a highly concentrated banking sector, half of the adult population remain unbanked and around 40% of transactions use non-cash methods. Indonesia illustrates many of the paradoxes of uneven growth amplified by digital economy activities. This talk introduces new research with Dr Nofi Iman (UGM) on institutional analyses of stakeholders in Indonesia's payment systems and modularity in services innovation.

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**Associate Professor  
Jonathan Liebenau**  
London School of  
Economics

Jonathan Liebenau is in the Department of Management of the London School of Economics where he teaches and researches on management, economic and policy aspects of the digital economy. He is a designated 'senior scholar' of the Academy of Information Systems, an associate of the Columbia University Institute for Tele-Information, a Fellow of the Royal Society of Arts, and a founder of the *Journal of Information Technology for Development*. He has held visiting positions at the Thailand Development Research Institute and the Indonesian Centre for Strategic and International Studies focusing on the transfer of technology. His current areas of focus are on innovation in Chinese high technology companies and on regulation, technology and the political economy of fintech companies. He has taught or held visiting professorships at the universities of Pennsylvania, Wisconsin-Madison and Columbia University (NYC), Yonsei University (Seoul), Istanbul Bilgi University, American University in Cairo and currently at the University of Sydney Business School. He is the author of numerous books, reports and scholarly articles on IT and development.



# Technical Innovation and Development

Chaired by Professor Heather Horst, University of Sydney

## Digital Accelerators and Start-ups in Myanmar

In the early 2010s, Myanmar underwent a drastic economic and political transformation and leapfrogged from a country where most people had never used a computer or a landline phone before, to one which had one of the highest rates of smartphone penetration and 3G/4G usage in the region. 2015 saw the first democratically elected government come into power after decades of dictatorship. It was also during that time that a new tech entrepreneurship ecosystem started to blossom. Phandeeyar, a tech hub founded in Yangon in 2014, was and continues to be one of the hotbeds of activity in Myanmar's tech scene, housing Myanmar's first startup accelerator, as well as a series of civic tech initiatives. Over the past decade, Myanmar's transition has seen major setbacks and catastrophes, with technology being a vector through which hate speech has spread, whilst the government has been repressing press freedom. Nevertheless, entrepreneurs and technologists in Myanmar remain hard at work, building technological solutions in one of the world's last frontier economies.

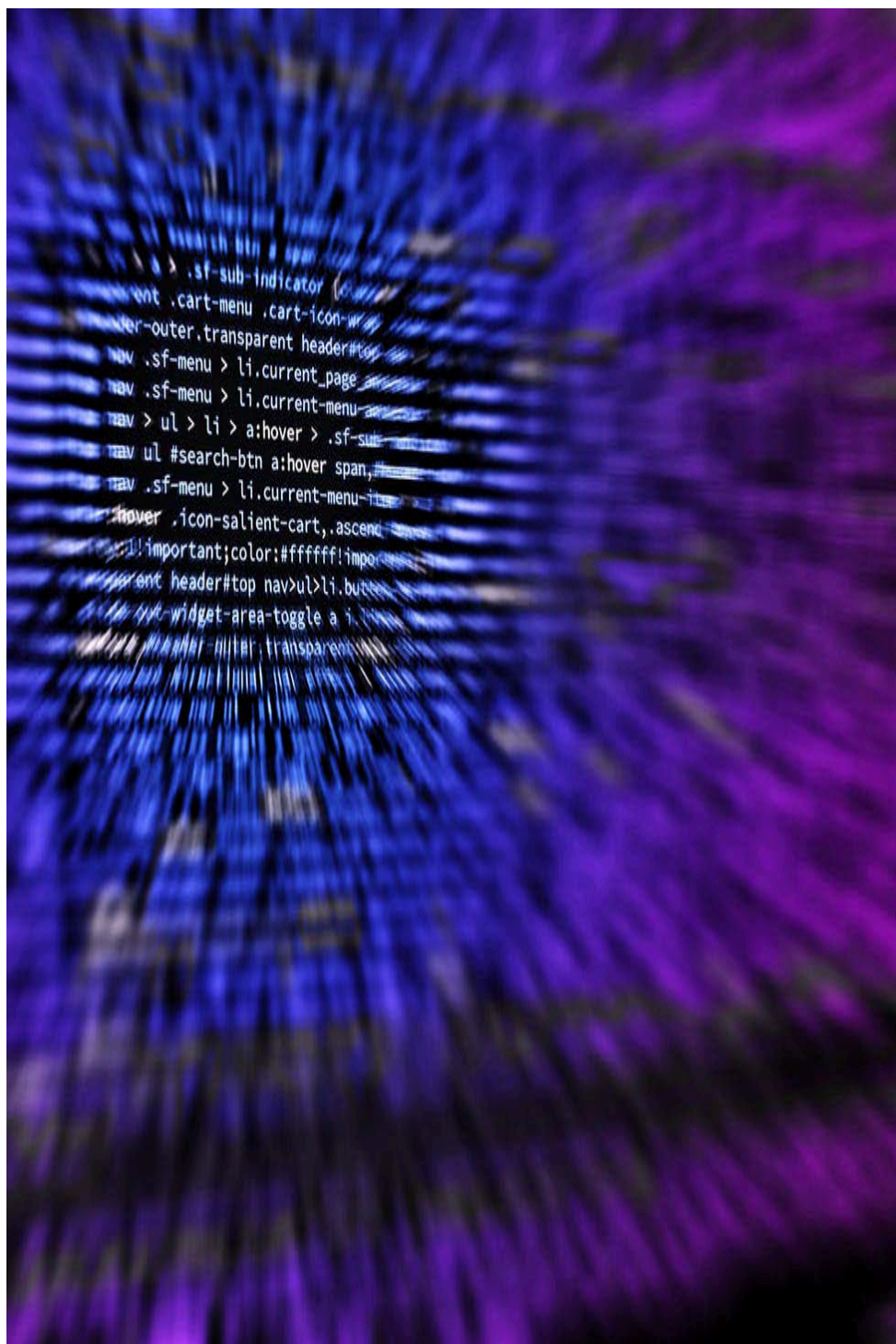
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**Mr Yan Naung Oak**  
Phandeeyar Myanmar  
Innovation Lab

Yan Naung Oak is a data visualization designer and data literacy trainer, as well as an open data, ICT for development, and civic tech advocate. He is currently a senior advisor at Phandeeyar, an innovation hub in Yangon, Myanmar. As one of Phandeeyar's founding team members, he has played a leading role since 2014 in setting up many of the hub's innovation programs, such as the Phandeeyar Startup Challenge, which has now grown to become Myanmar's largest annual startup competition, the Phandeeyar Makerspace, and Open Development Myanmar - an online platform devoted to publishing open data for development. He has also worked with School of Data to build data products for public accountability in Myanmar and Ghana, and trained media and civil society in data skills in Southeast Asia, Africa and the UK. In 2018, he co-founded Thibi, a data and design focused digital agency which currently works in projects ranging from urban data analytics to investigative data journalism.

**Twitter:** @yanoak



# Social Impact of the Digital Revolution

Chaired by Mr Kean Wong, Independent Journalist

## Fake News and Freedom of Speech in Singapore

Singapore is a highly literate, highly connected island country. In May 2019, the People's Action Party (PAP) government pushed the *Protection from Online Falsehoods and Manipulation Act* through Parliament. Claiming that the country needs to be prepared to fight against the scourge of misinformation and disinformation, the PAP essentially gave its own ministers the power to become the arbiters of truth on the Internet. This new legislation further erodes freedom of speech in a context where civil liberties have already long been under threat. In my presentation I'll look at the framing of the *Protection from Online Falsehoods and Manipulation Act*, and the processes by which this legislation came to be. I argue that the Singaporean context does not necessitate such a sledgehammer approach to dealing with misinformation, and that such a law could in actual fact cause further harm to public trust and increase society's vulnerability to "fake news". Given the current state of Singapore's civil society, I will also look at how likely it is for prolonged resistance to the law to survive.

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**Ms Kirsten Han**  
New Naratif

Kirsten Han is a Singaporean freelance journalist and Editor-in-Chief of *New Naratif*, a platform for Southeast Asian journalism, research, art and community-building. Her work often revolves around the themes of social justice, human rights, politics and democracy, with bylines in publications like *The Guardian*, *The New York Times*, *The Washington Post* and *Asia Times*. In 2019, she was awarded a Human Rights Press Award for her commentaries on the issue of "fake news" and freedom of expression in Singapore and Southeast Asia. Her essay, "The Silhouette of Oppression", was published by Epigram Books in 2019. Kirsten is also a founding member of *We Believe in Second Chances*, a group advocating for the abolition of the death penalty in Singapore.

**Twitter:** @kixes

# Social Impact of the Digital Revolution

Chaired by Mr Kean Wong, Independent Journalist

## Cyber Conflict and ICT Security in the ASEAN Region

We have seen a dramatic increase in incidents involving the malicious use of Information and Computer Technologies (ICTs) by state and non-state actors. These constitute risks for all states and may harm international peace and security. Certain states are developing military capabilities, and the use of ICTs in future conflict between states is more likely. Southeast Asia cannot be expected to escape these global trends. States are affected by them and/or feel compelled to develop their own capabilities. While national Computer Emergency Response Teams (CERTs) are well established, investments in cyber units within the national security apparatuses are less well published, and if known, details are covered in deep secrecy. This angle to ICTs has not featured prominently on ASEAN's agenda when compared to conventional regional security issues or the socio-economic aspects of ICTs. When it comes to addressing inter-state incidents, governments in the region have not been feeling comfortable or in a position to draw lines about what activities they deem responsible state behaviour and what are unacceptable operations in cyberspace.

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Bart Hogeveen is Head of Cyber Capacity Building at ASPI's International Cyber Policy Centre. He supports international and regional mechanisms to enhance cyber-stability with governments and nongovernmental organisations across Southeast Asia and the Pacific. Bart currently directs a multiyear effort supporting further adoption of international norms and cyber-confidence-building measures in the ASEAN region. He authored the *Sydney Recommendations on Practical Futures on Cyber Confidence Building in the ASEAN region* and publishes on *The Strategist* on related international cyber-security topics.

**Mr Bart Hogeveen**  
Australian Strategic  
Policy Institute

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# Social Impact of the Digital Revolution

Chaired by Mr Kean Wong, Independent Journalist

## Online Political Engagement in Southeast Asian Elections

Southeast Asia is the most social media active region in the world yet our understanding of online political participation is still in its infancy. Elections times often see political participation online peak in most countries as political parties launch full-scale social media campaigns in their contest to win the hearts and minds of voters now increasingly spending time in cyberspace. How do political parties engage with social media users and what do users actually do online during election campaigns? What accounts for a successful social media campaign? This talk is based on survey results and Facebook analysis of political engagement during the campaign periods of four elections in Southeast Asia: the Philippines (2016), Malaysia (2018), Thailand (2019) and Indonesia (2019). It argues that pre-existing online and offline support base is crucial to the success of a political candidate's social media campaign regardless of candidate's input. The talk will also touch upon the issues of online disinformation and trust in social media information and why they vary both within a country and across countries.

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**Dr Aim Sinpeng**  
University of Sydney

Aim Sinpeng is a Lecturer in Comparative Politics. An award-winning educator, her research interests centre on the relationships between digital media, political participation and political regimes in Southeast Asia. Aim is particularly interested in the role of social media in shaping state-society relations and inducing political and social change. Together with Dr Fiona Martin, Aim was recently awarded funding by Facebook to help the social media giant understand how better to regulate hate speech online in the Asia-Pacific region. Her other scholarly works examine popular movements against democracy in democratising states, particularly in Thailand. Aim is the co-founder of the Sydney Cyber Security Network and has served as the Expert Contributor for Varieties of Democracy and Bertelsmann Transformation Index, which measure degrees and types of democracy.

**Twitter:**      @aimsinpeng



# Panel discussion

## What – and Who – is Being Left Behind?



**Dr Damien Spry**  
University of South  
Australia

Dr Damien Spry is a Lecturer in Media and Communications at the University of South Australia. His scholarly research focusses on social media impacts on politics and diplomacy. He is a regular contributor to think tanks, including the Lowy Institute and the Australian Strategic Policy Institute, and has consulted for several multinational companies and NGOs, including Google, Facebook and Amnesty International, as well as to several governments. He's been a public relations manager, radio presenter, cultural commentator, human rights campaigner, travel writer, social media marketer and an intercultural communications trainer. He has developed the Facebooking diplomacy database and is currently developing a Twitter diplomacy database with the Digital Media Research Centre at the Queensland University of Technology, where he is a Visiting Fellow.

**Twitter:**      @dspray



**Dr Crystal Abidin**  
Curtin University

Dr Crystal Abidin is a digital anthropologist and ethnographer of vernacular internet cultures. She researches young people's relationships with internet celebrity, self-curation, and vulnerability. Her books include *Internet Celebrity: Understanding Fame Online* (2018), *Microcelebrity Around the Globe: Approaches to Cultures to Cultures of Internet Fame* (2018, co-edited with Megan Lindsay Brown), and *Instagram: Visual Social Media Cultures* (2019, with Tama Leaver and Tim Highfield). She is listed on Forbes 30 Under 30 Asia (2018) and Pacific Standard 30 Top Thinkers Under 30 (2016). Crystal is a Senior Research Fellow & ARC DECRA Fellow in Internet Studies at Curtin University, an Affiliate Researcher with the Media Management and Transformation Centre at Jönköping University, and a Research Fellow with the Centre for Culture and Technology at Curtin University.

**Twitter:**      @wishcrys

# Panel discussion

## What – and Who – is Being Left Behind?



**Professor Fleur Johns**  
UNSW Sydney

Fleur Johns is Professor in the Faculty of Law at UNSW Sydney. Fleur studies patterns of governance on the global plane. Her current research focuses on changing modes of global relation emerging in the context of technological change. She is currently leading a 3-year Australian Research Council-funded project entitled 'Data Science in Humanitarianism: Confronting Novel Law and Policy Challenges'. In 2019-20, Fleur is pursuing this and related research as a member of the Institute of Advanced Study in Princeton, in the School of Social Sciences. Fleur is the author of *Non-Legality in International Law: Unruly Law* (Cambridge, 2013) and *The Mekong: A Socio-legal Approach to River Basin Development* (co-authored with Ben Boer, Philip Hirsch, Ben Saul & Natalia Scurrah, Routledge 2016).

**Twitter:**      @FleurEJ



**Dr Petr Matous**  
University of Sydney

Dr Petr Matous is a senior lecturer in the University of Sydney's School of Civil Engineering, and the Associate Dean for Indigenous Strategy and Services in the Faculty of Engineering. He is also an active member of the Sydney Southeast Asia Centre's Executive Committee. His research investigates how social networks affect ordinary people's access to resources, such as clean drinking water in Manila. Petr graduated with a PhD from the University of Tokyo in 2007, and received the University of Tokyo's President Award.

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