New Technologies Research Academy

17 - 19 May 2023

AS8 #04-04 Seminar Room

10 Kent Ridge Cres, Singapore 119260

Website: bit.ly/3LshbIx

Register Here: bit.ly/3n0s8aK

Organized by: FASS Dean's Office, Research Division

DAY 1 | 17 MAY 2023

09:00 - 09:15

WELCOME REMARKS

Elaine Ho | Vice-Dean (Research)

09:15 - 10:15

KEYNOTE PRESENTATION

Misgiven in evidence: Machine Translation and witness statements

Bart Defrancq

Ghent University

10:15 - 10:30

BREAK

10:30 - 12:30

WORKSHOP

Automatic speech recognition in the era of Large Language Models

Bart Defrancq

Ghent University

12:30 - 13:30

LUNCH

13:30 - 14:30

KEYNOTE PRESENTATION

Distant Viewing

Lauren Tilton

University of Richmond

14:30 - 14:45

BREAK

14:45 - 16:45

WORKSHOP

Images as Data

Lauren Tilton

University of Richmond

DAY 2 | 18 MAY 2023

09:15 - 10:15

KEYNOTE PRESENTATION

Planetary Media Studies: The Mediation of Life and the Emergence of an Intelligent Technosphere

Adam Fish

University of New South Wales

10:15 - 10:30

BREAK

10:30 - 12:30

WORKSHOP

Drone Counter-mapping of a Contentious Site: A Speculative Workshop

Adam Fish

University of New South Wales

12:30 - 13:30

LUNCH

13:30 - 14:30

KEYNOTE PRESENTATION

Beyond the Block: Unlocking Social Impact with Blockchain in Decentralized ID and Cash Systems

Kuldeep Bandhu Aryal

Ethereum Foundation fellow

14:30 - 14:45

BREAK

14:45 - 16:45

WORKSHOP

Quadratic Funding is (not) hard

Hum Qing Ze

Ethereum Foundation fellow

DAY 3 | 19 MAY 2023

09:00- 10:30

POSITION PAPERS

10:30 - 11:00

BREAK

11:00 - 12:30

POSITION PAPERS

12:30 - 13:00

CLOSING REMARKS

13:00

LUNCH

NUS National University of Singapore | Faculty of Arts & Social Sciences

NEW TECHNOLOGIES RESEARCH ACADEMY

17 – 19 May 2023 | AS8 04-04 Seminar Room, National University of Singapore

17 MAY 2023 (Wednesday) – DAY 1

09:00 – 09:15	**WELCOME REMARKS**
	Elaine Ho | Vice Dean of Research, Faculty of Arts and Social Sciences, NUS
09:15 – 10:15	**KEYNOTE PRESENTATION #1**
	Misgiven in evidence: Machine Translation and witness statements **Bart Defrancq** | University of Ghent
10:15 – 10:30	**BREAK**
10:30 – 12:30	**WORKSHOP #1**
	Automatic speech recognition in the era of Large Language Models **Bart Defrancq** | University of Ghent
12:30 – 13:30	**LUNCH**
13:30 – 14:30	**KEYNOTE PRESENTATION #2**
	Distant Viewing **Lauren Tilton**| University of Richmond
14:30 – 14:45	**BREAK**
14:45– 16:45	**WORKSHOP #2**
	Images as Data **Lauren Tilton**| University of Richmond

18 MAY 2023 (Thursday) – DAY 2

09:15 – 10:15	**KEYNOTE PRESENTATION #3**
	Planetary Media Studies: The Mediation of Life and the Emergence of an Intelligent Technosphere **Adam Fish** | University of New South Wales
10:15 – 10:30	**BREAK**
10:30 – 12:30	**WORKSHOP #3**
	Drone Counter-mapping of a Contentious Site: A Speculative Workshop **Adam Fish** | University of New South Wales
12:30 – 13:30	**LUNCH**
13:30 – 14:30	**KEYNOTE PRESENTATION #4**
	Beyond the Block: Unlocking Social Impact with Blockchain in Decentralized ID and Cash Systems **Kuldeep Bandhu Aryal**| Ethereum Foundation fellow
14:30 – 14:45	**BREAK**
14:45– 16:45	**WORKSHOP #4**
	Quadratic Funding is (not) hard **Hum Qing Ze**| Ethereum Foundation fellow

19 MAY 2023 (Friday) – DAY 3	
09:00 – 10:30	**POSITION PAPERS**
	Various Selected Presenters (Refer to page 10)
10:30 – 11:00	**BREAK**
11:00 – 12:30	**POSITION PAPERS**
	Various Selected Presenters (Refer to page 14)
12:30 – 13:00	**CLOSING REMARKS**

DAY 1 – 17 May 2023

Professor Bart Defrancq (Ghent University)
Bart.Defrancq@UGent.be

KEYNOTE

Misgiven in evidence: Machine Translation and witness statements

Around the world millions of criminal cases involve multilingual processes. In most parts of the world these still imply the intervention of a human agent – an interpreter – to make communication possible. However, with the rise of LLM-based technologies offering good quality translations around the clock at a low price, it is likely that judicial authorities will eventually turn to speech technologies to communicate with speakers of non-dominant languages. I will address the legal and technical ramifications of such practices.

WORKSHOP

Automatic speech recognition in the era of Large Language Models

This workshop will illustrate the profound impact neural automatic speech recognition (ASR) and its combination with other technologies will have on many disciplines. I will focus on the following areas:

- Research: corpus compilation of spoken language data is significantly sped up;
- Automatic multilingual subtitling: multilingual meetings are increasingly made accessible through automatic subtitling combined with machine translation; this could eventually mean the end of conference interpreting ;
- Interpreter support: combined with the right type of extraction module, ASR can help interpreters creating a parallel source of information.

The workshop will invite participants to use a series of different ASR systems to give them a balanced picture of its potential. It will also advise future users to thread carefully, as multiple issues of accessibility, data management, accountability and confidentiality are still unsolved.

ABOUT THE SPEAKER

Bart Defrancq is an Associate Professor of interpreting at Ghent University and course leader of the interpreting programs. He is the current president of CIUTI, a global association of translation and interpreting programmes. Bart's research focuses on simultaneous conference interpreting and police interpreting. He advocates corpus-based research methods and technological tools to support interpreters.

DAY 1 – 17 May 2023

Associate Professor Lauren Tilton (University of Richmond)

ltilton@richmond.edu

KEYNOTE

Distant Viewing

Scholars from a range of backgrounds are turning to computer vision as evidence and as an object of study. Bringing together data science, digital humanities, and media studies, this talk will introduce the concept of distant viewing, a theory and method for understanding how computer vision views digital images. We will then turn to how distant viewing can facilitate the study of visual culture. The talk will end with a conversation about the role of interdisciplinarity, collaboration, and credit in pursuing computationally-driven research.

WORKSHOP

Images as Data

Working with images as data offers exciting possibilities for scholars. The workshop will introduce computer vision and distant viewing. We will begin by unpacking how computers view images and then turn methods such as color analysis, face detection, and object detection to analyze images. We will be working in a Collab notebook. No programming experience is expected.

ABOUT THE SPEAKER

Lauren Tilton is an associate professor of Digital Humanities at the University of Richmond, and director of the Distant Viewing Lab. She is co-author of *Humanities Data in R: Exploring Networks, Geospatial Data, Images and Texts* (Springer 2015) and *Layered Lives* (Stanford 2022). Her scholarship has appeared in journals such as *American Quarterly*, *Digital Humanities Quarterly*, and *Digital Scholarship in the Humanities*. She is the co-editor of the forthcoming *Debates in the Digital Humanities* volume on computational humanities. Her most recent project, *Distant Viewing*, focuses on large scale image analysis using computer vision including an open source toolkit (https://github.com/distant-viewing/dvt) and forthcoming book on The MIT Press.

DAY 2 – 18 May 2023

Associate Professor Adam Fish (University of New South Wales)
a.fish@unsw.edu.au

KEYNOTE

Planetary Media Studies: The Mediation of Life and the Emergence of an Intelligent Technosphere

We human, non-human, and more-than-human intelligences come into being through mediation–the thermodynamic flows of energy, information, heat, and molecules. We emerge, decay, and regenerate following the laws of evolution and entropy as they are known on Earth. Life, thus, is based on mediation as it exists on this planet and in this galaxy. Digital media studies, then, is primed to contribute to the study of life and this planet and beyond. Through an investigation into the speaker's drone and activist video work, this talk will focus on planetary media studies–an approach to digital media studies that emphasizes the contingencies of communication on this planet and in this galaxy. By looking at an Aboriginal and Torres Strait Islander-owned satellite Earth station, the talk will introduce a planetary media studies that connects the specifics of cultural production to the universal aspirations of planetary science. By peering at the speaker's drone-based biological conservation in Indonesia and coal mine surveillance in Australia, the talk will proceed to analyze how entropy weaves together biological and technological life on Earth. By considering the speaker's drone-based fieldwork with renewable energy protesters in Greece, the talk will discuss the emergence of a self-regulating technosphere. The talk will conclude through a glance at the speaker's new research into exoplanet telescopes on and off the Earth, considering how planetary media studies can contribute to envisioning life as it is, could be, and might have been. In sum, the talk offers a vision of digital media studies that is grounded in physics and cosmology and capable of oscillating between the specific diversities of intelligent life on Earth and a universe of physical forces. Implementing planetary media studies requires an experimental methodology of engagement with the more-than-human intelligences with which we cohabit this planet.

WORKSHOP

Drone Counter-mapping of a Contentious Site: A Speculative Workshop

This workshop will practically explore the possibilities of using a small personal videography drone for counter-surveillance. We will begin with a design fiction that we are activists interested in using a drone to document some Earth-based activity–a housing development, an act of industrialization, a natural context, an ecological dilemma, a protest, etc. We will go through the process of thinking critically and practically about how to undertake a drone video project.

The workshop will begin with a 30 minute mini-lecture introducing the practice of amateur and activism drone surveillance. Key concepts and practices including surveillance, counter-surveillance, counter-mapping, drone activism, vertical vision, geofencing, elementality, technicity, governmentality, biogovernmentality, and design fiction.

Afterwards, we will crowdsource ideas for a drone project, do background research on the site to be filmed, investigate the legality of flying on this site, and do preliminary geospatial

mapping via Google Earth investigating where we might be stand as we fly the drone. We will discuss how to fly a drone. We will go outside the workshop room and fly a drone in a legal and safe manner. Participants will each be given an opportunity to fly the drone. We will return to the workshop room, upload the footage, view it, and discuss it. We will imagine that the footage is of the contentious site or event. We will discuss what we will do with the footage. Will we edit it? Does it need a captioning or a description? How will we distribute it? What other media should we pair with this footage?

This speculative workshop will simulate the process of drone counter-mapping and prepare the participants to better understand the political implications and limitations of the democratization of the atmosphere.

ABOUT THE SPEAKER

Adam Fish is a Scientia Associate Professor in the Faculty of Arts and Social Sciences, School of Arts and the Media, at the University of New South Wales. He is a cultural anthropologist, documentary video producer, and interdisciplinary scholar who works across social science, computer engineering, environmental science, and the visual arts. Dr. Fish employs ethnographic, participatory, and creative methods to examine the social, political, and ecological impacts of new technologies. He has authored several books including: *Hacker States* (MIT 2020, with Luca Follis, Lancaster University, UK), about how state hacking impacts democracy; *Technoliberalism* (Palgrave Macmillan 2017), an ethnography of the politics of internet and television convergence in Hollywood and Silicon Valley; and *After the Internet* (Polity 2017, with Ramesh Srinivasan, UCLA, US), which reimagines the internet from the perspective of grassroots activists, citizens, and hackers on the margins of political and economic power. *After the Internet* was translated into Spanish in 2021. His most recent completed project was based on four years of collaboration with marine conservation drone operators across the world and resulted in the forthcoming book *Oceaning: Governing Marine Life with Drones* in 2024 with Duke University Press. Alongside this he is finishing a book on drone studies with Michael Richardson (UNSW) for MIT Press.

DAY 2 – 18 May 2023
Kuldeep Bandhu (Ethereum Foundation fellow)

kuldeep.aryal@brac.net

KEYNOTE

Beyond the Block: Unlocking Social Impact with Blockchain in Decentralized ID and Cash Systems

The potential of blockchain technology in decentralized ID systems and unrestricted cash transfers is immense, offering innovative solutions to some of the most pressing challenges in the development sector. Decentralized IDs offer secure, verifiable identities, improving access to vital services and empowering marginalized groups like refugees with portable digital identities. Blockchain also enables transparent, efficient cash transfers, removing intermediaries and lowering fraud risks. Smart contracts automate fund disbursement, ensuring timely assistance and increased donor accountability. Additionally, blockchain enhances commodity traceability, fostering ethical, sustainable practices. By revolutionizing how we tackle global issues, blockchain fosters more inclusive, resilient development solutions.

ABOUT THE SPEAKER

Kuldeep Bandhu Aryal is the co-lead and senior manager for frontier technology and partnerships at the BRAC Social Innovation Lab. He is a Fellow at the Ethereum Foundation, and Innovation Lead at Field Ready International and has a demonstrated history of innovation management in the development and humanitarian sectors in both Nepal and Bangladesh over the past 7 years. With overlapping personal and professional values, Kuldeep seeks to promote open-source innovations and whole-of-community approaches to make resource-constrained communities more resilient during times of crisis and disasters. Kuldeep has extensive experience in using Frontier Technologies and exploring solutions for challenges faced in various humanitarian responses. Kuldeep has explored and implemented the use of Digital Fabriaction to promote local manufacturing of aid supplies. He was the lead during the development of South Asias first blockchain based cash transfer system called “Sikka” during his engagement with the Nepal Innovation Lab in Kathmandu.

He’s currently a fellow at the Ethereum Foundation where he is exploring the use of blockchain for the creation of a decentralised unique ID system to link with various humanitarian response verticals. Kuldeep is also engaged with building solutions to improve supply chain in responses through distributed manufacturing technology as well as exploring decentralised feacal sludge management technologies for the Rohingya response.

With Field Ready International, Kuldeep is also leading projects around plastics recycling to increase the lifespan of infrastructure in the Rohingya refugee camps. He was recognised by the Bill and Melinda Gates foundations as a Goalkeeper in 2021 for using local manufacturing for making PPE for the frontline workers during the COVID Response.

DAY 2 – 18 May 2023

Hum Qing Ze (Ethereum Foundation fellow)

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WORKSHOP

Quadratic Funding is (not) hard

The workshop starts by providing an overview of funding mechanisms in Web3 before explaining what quadratic funding brings that is unique and why it maximises social utility. We will dive deeper into quadratic funding and enact a demonstration together before brainstorming what are some potential use cases you could apply it to.

ABOUT THE SPEAKER

QZ is currently organising Ethereum Singapore and has prior experience with Gitcoin leading its grassroots team as Gitcoin was transitioning towards becoming a Decentralised Autonomous Organisation (DAO). GitcoinDAO runs quarterly grants rounds utilising quadratic funding for the Web3 community and thus as part of the grassroots team, QZ has had to onboard many newcomers to the space as they sought to become grantees to receive funding. Now he is at clr.fund which is a tool for communities to utilise quadratic funding to allocate resources to projects that are important to their ecosystem.

Sandpit Position Paper Presentations
DAY 3 – 19 May 2023
09:00 – 10:30

Dylan Brady
Assistant Professor, Department of Geography, National University of Singapore

PayNow as boundary infrastructure: Platform capitalism and the resurgent state

Digital finance infrastructures, particularly cashless payment platforms, are radically reworking how ordinary people interface with economic systems in everyday life. Yet despite rhetoric of 'borderless' flows and 'sovereign' stacks, the state still plays a determinative role in shaping platforms. Singapore is exemplary: the city's leadership position in global and regional digital finance is inextricable from its strong developmental state. Taking the PayNow platform as an entry point, I am interested in asking how the Singaporean stack emerged, how it is reshaping everyday life, and how new bilateral linkages will complicate its role.

Dylan Brady is an Assistant Professor in the Geography Department at NUS. He is a human geographer who examines politics and culture through the lenses of materiality, practice and the built environment. He researches how geopolitical abstractions like "nation" and "state" emerge through the mundane digital infrastructures of everyday life.

Mark Balnaves
Senior Lecturer, Monash University Malaysia

The superaggregator black box: metrics

Audience ratings have extended to everything, from pressing "heart" on Tik Tok to working out ratings for nearly every service we use; with no access to users to the methodologies of these ratings. However, audience ratings, were originally conducted by independent bodies to ensure transparency and accountability. This loss of transparency affects everything, from estimating costs of services, reliability of return on investment, to understanding public opinion in a social media world. With AI in the metrics mix, things become even more murky. There is a loss of *digital public space*. Advertising companies have especially been hit by the loss of transparency leading to major law suites. The contest for digital public space is real.

Mark Balnaves is an expert in media audience research, including the role of metrics technologies in shaping media industries and audiences.

Joanne Lim Bee Yin
Professor, University of Nottingham Malaysia

Digital Media Interventions for Participatory Governance in Malaysia

This paper examines the use of digital platforms for citizen participation and explores mechanisms for the design and development of digital media interventions to enable participatory governance in Malaysia and in the region, akin to vTaiwan.tw and Decidem.org. It considers the use of AI and blockchain protocols to create a non-autonomous tool that enables state-societal involvement within a 'safe' and open environment. Aligned to the notion of a regenerative assemblage, the proposed model 'Digital Sociocracy' focuses on perpetual co- designing, engaging in continuous redefining, and rediscovering of ways to address issues and challenges in society through the practice of digital connectivity and improvisation.

Dr Joanne Lim is Professor of Media, Communications and Cultural Studies at the University of NottinghamMalaysia. She holds a PhD in Media and Cultural Studies from the University of East London, and wasappointed Visiting Senior Fellow at LSE. Her research focuses on participatory culture and digital mediainterventions.

Faris Bin Ridzuan
Masters Student, Department of Malay Studies, National University of Singapore

Affirming Life and the Dignity of All In Deep Human Qualities: Understanding the Useless Class in a Mass Man Artificially Intelligent World

Faris Ridzuan is formulating and refining my research objective to explain the nature of, origins and causes, as well as the function of the rise of what Yuval Noah Hariri termed the plausible "useless class" in surveillance capitalism bolstered by AI, superintelligence and dataisation (defined by Faris R. in his earlier academic publication), from a socio-religious lens that accounts for religious diversity including the spiritual but not religious, agnostics etc. and the multiplicity of various religious orientations, with a focus on the ideological or utopian. Through the main means of analysis that involves the continuity and change of mass man religiousity and the corresponding categories to describe those who do not identify as religious, I explore Ortega's characterisation and function of the mass man society and the implications of Artificial Intelligence and dataisation that might lead to mass man societies' further decline in creativity and awareness in the context of the formation of the useless class that has no bargaining chip to revolt against sociological class injustices and inequities. This process, if uninterrupted, might then maintain the proliferation of mass man in both quality and quantity in all levels, sociological classes and categorical variables of society. The solution lies in the cultivation of what has been termed deep human qualities of unconditional love, awareness, perception and gratitude that sees inherent dignity and interdependence in all forms of life, and that can discern between that which is life affirming, or that which is life denying.

Faris Ridzuan is an Academic Tutor for the College of Humanities and Sciences, and pursuing his Master of Arts at Malay Studies, NUS. He also works as a General Paper and IP English Teaching and Curriculum Specialist at illum.e. He has published in academic and research journals, platforms on topics such as religion and surveillance capitalism. He has published an academic article titled Surveillance Capitalism's Social Problems: Progressive Orientation Helps the Most, and his in press co-authored book chapter on technology, surveillance capitalism

and religion with ISEAS -Yusof Ishak Institute, will be published soon. He is active in civil society in areas like interfaith, climate change, and poverty, inequality and inequity alleviation.

Chitra Venkataramani
Assistant Professor, Department of Sociology & Anthropology, National University of Singapore

Visual Technologies at the Shore

I am interested in visual technologies that document and represent more-than-human worlds. My current book project comes at this through coastal surveys, plans, and satellite mapping. More recently, I have begun working on data publics. Examples of this include online communities of people who collate and disseminate weather data and participants in citizen science surveys. For the presentation, I would like to focus on real-time satellite mapping information utilized by the Fisheries Department of India. This technology is the latest in a long line of visual technologies used to surveil the country's coast, making it amenable to industry projections and calculi.

Chuan Yu
Assistant Professor, Department of Translation, Interpreting and Intercultural Studies, Hong Kong Baptist University

Empowering ethnic and linguistic minorities in crisis communication in Hong Kong: An ethnographic approach

How it relates to the workshop themes and methods:

My paper relates to the theme of practical application of digital technologies for creating avenues for identity. The research draws on my on-going project on crisis communication, adopting multi-sited ethnography encompassing both online and offline spaces.

Research description:
In the handling of a crisis, effectively communicating crisis information to the populations affected is key. In this regard, residents from linguistic minorities who are not competent in the official national/regional language(s) are often more vulnerable, for instance, members from ethnic minority (EM) communities. Drawing on the theory of communities of practice and the data collected from the multi-sited ethnography encompassing both online and offline spaces, the paper examines how Pakistani and Nepalese EMs in Hong Kong negotiate meanings concerning their identities in a community of practice formed by the practice of collaborative translation that involves the use of digital technologies.

Chuan Yu is an Assistant Professor in the Department of Translation, Interpreting and Intercultural Studies at Hong Kong Baptist University. She is the author *of Online Collaborative Translation in China and Beyond: Community, Practice, and Identity* (Routledge 2022) and

Associate Editor of the journal *Interpreting and Society - An Interdisciplinary Journal*. Her research interests include collaborative translation, non-professional translation, translation technologies, communities of practice, citizen media, internet research, and ethnography.

Mia Ching Lee
Senior Lecturer, Singapore University of Social Sciences

Digital Participation and Our Sense of Self

Starting January 2024, I will be teaching an introductory course on digital literacy and content creation. One of the main incentives for teaching this course is the opportunity for students to explore the promises of the internet as a forum for exchange and engagement. Together, we will study the capacities of the internet for ordinary users, critically consider the way information is collected and sorted, and experiment with methods for intervening in existing discussions and debates.

Students will also step back and reflect on how technology has affected both how we think and how we see ourselves. Here, I take inspiration from Georg Lukacs' discussion of how the novel form enabled modern sensibilities of the self. The basis of my research will be a survey and portfolio assignment for which students will reflect on their online personas as they navigate and use digital tools to create, publish, and maintain digital content. My investigation will explore several layers including experiential learning, collaboration, and networking in a digital environment.

This project ties in with the Academy's theme of "Practical application of digital technologies for creating avenues for dignity and identity" as well as a digital humanities approach.

Sandpit Position Paper Presentations
DAY 3 – 19 May 2023
11:00 – 12:30

Zhu Xuelian
PhD Candidate, National Institute of Education, Nanyang Technological University

An eye-tracking study on multimodal input in machine-assisted interpreting

My work explores the complex interaction between verbal and non-verbal modalities in interpreting, and how technology can assist in understanding these interactions. This aligns with the conference's theme of using computer-assisted technologies for research in the humanities. My research utilizes cutting-edge eye-tracking technology to investigate the cognitive and behavioral processes involved in interpreting, particularly in distance or hybrid conference interpreting, shedding light on how interpreters use multiple modes of communication to convey meaning. I hope to contribute to the ongoing dialogue on how technology can be used to support and enhance research in the humanities.

ZHU Xuelian is a PhD candidate from the National Institute of Education of Nanyang Technological University, Singapore. Xuelian is also an active conference interpreter, providing conference interpreting services at both local and international levels. Her experiences in teaching and professional practice led to her current PhD project in computer-assisted interpreting.

Nora Aranberri
Associate Professor, Faculty of Arts, UPV/EHU

Machine translation as a potential new partner in the revitalization process of Basque

Machine translation could play a key role in the ongoing revitalization process of Basque —as it could for other minority languages. However, such a role is yet to be defined, as is the way to maximize the benefits the technology brings and to minimize possible threats, mainly because we have not fully considered its possibilities and impact. MT is still an imperfect technology, and a technology that people use mostly based on instinct and need alone. And we do not know, among others, the effect it might exert on language change.

I am Associate Professor at the Faculty of Arts, where I teach English-Spanish translation and interpreting. I am also a researcher at HiTZ – Basque Center for Language Technology. My research focuses on machine translation for Basque. I am currently a research visitor at FASS (language and linguistics cluster).

Stefan Huebner
Senior Research Fellow, Asia Research Institute

Linking the Digital Humanities to Biodiversity History in Singapore and Southeast Asia

Our SSRTG-funded, interdisciplinary research project involving historians, biologists, and GIS technicians shows the value of using digital humanities methods to study the history and current situation of naturalized (meaning intentionally or accidentally introduced) species in Southeast Asia. Large-scale digitization of historical source materials on biodiversity history since the nineteenth century and making them available through a data repository is being implemented with support from Singaporean and international collaborators. Data mining of these historical sources enabled the creation of new digital databases on introduced species. Exhibits at the NUS Lee Kong Chian Natural History Museum serve to publicize the database information. A website and a geo-visualization platform are being developed to support new directions in environmental humanities and biological research.

Stefan Huebner is a historian interested in environmental and oceanic topics and Senior Research Fellow at the Asia Research Institute (NUS). He was U.S. SSRC Transregional Research Fellow and Fulbright Scholar at Harvard University. He is Co-PI of the SSRTG project on "Linking the Digital Humanities to Biodiversity History in Singapore and Southeast Asia".

Cheng Shao Meng (Merlin)
Department of Communications & New Media, National University of Singapore

3-Dimensional Digital Archive: The Case to Record Heritage Objects and Sites Through 3D-Scanning, Photogrammetry and 3D Modeling

As a young nation with limited space but filled with rich history, it is increasingly unavoidable that buildings and structures need to be torn down or demolished. The objects found on those sites would often be disposed of if deemed unremarkable by the governing authorities, yet they may contain valuable social and community history.

While photography and videos can provide snippets into yesteryears long gone, digital 3D models can provide a more intimate experience through media such as virtual reality. This position paper argues that with the rapid development of Singapore, digital archiving of sites and objects should be done before a site is permanently demolished for historical records and posterity.

Ben Blumson
Associate Professor, Department of Philosophy, National University of Singapore

Computational Methods in Philosophy

In this talk I discuss recent applications of computational methods in philosophy. Notable examples include: (i) computer assisted analysis of philosophical text, such as in Brian Weatherson's recent "A history of Philosophy Journals", and necessary preliminaries to this, such as Peter Millican and Amyas Merivale's digitization of David Hume's works, (ii) computer

simulations of game theoretic problems relevant to evolution of language and ethics, such as signalling games, the prisoner's dilemma and the stag hunt, and (iii) automated reasoning and interactive proof assistants, most notably in connection with ontological arguments for the existence of God, as well as a project to produce a digital edition of Russell and Whitehead's magnum opus Principia Mathematica using the proof assistant coq, and work on the theory of parts and wholes (which includes my own recent work).

Ben Blumson is an associate professor of philosophy at the National University of Singapore.

Patrick Williams
Associate Professor, Nanyang Technological University

Generative AI and qualitative social science research

With the growth of 'big data' have come a variety of analytic tools for analyzing large data sets/corpora. For researchers trained in classic face-to-face qualitative, ethnographic, or hermeneutical methods, such tools appear to require advanced, or at least specialized, training in quantitative research methods. The rise of AI platforms such as ChatGPT, however, suggest that there may now be opportunities for non-quantitatively trained scholars to benefit from computer-assisted technologies for research in the social sciences and humanities. Three questions that arise from the thought of such opportunities include: What AI platforms might be relevant for qualitative researchers generally, and why?; To what extent might these platforms assist in conducting non-hypothetico-deductive, interpretive, and/or constructionist research?; and, What types of digital literacy or expertise are necessary to use such AI platforms effectively? As we move forward into the age of AI, qualitative researchers will need to develop their methodological tool kits to effectively incorporate generative AI platforms. Answering the questions posed will involve (re)conceptualizing the boundaries between qualitative and quantitative methods, learning how we might use AIs as virtual research assistants, and understanding the capacities/capabilities of AI in terms of data collection, organization, analysis, and/or reporting.

I am an associate professor of sociology at NTU. My research interests are in non-normative identities and subcultural uses of internet and social media.