



**University of Dundee**

## **Is Big Data a New Medium**

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IS  
BIG DATA  
A NEW  
MEDIUM

An Interdisciplinary Symposium 7–8 May 2018

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IS  
BIG DATA  
A NEW  
MEDIUM

An Interdisciplinary Symposium 7–8 May 2018



# DAY 1

# 7 MAY 2018

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2:00 pm – 2.30 pm

ARRIVAL, COFFEE, REFRESHMENTS

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2:30 pm – 2:40 pm

STEVE DIXON

LASALLE PRESIDENT'S  
WELCOME

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2:40 pm – 2:45 pm

NATASHA LUSHETICH

INTRODUCTION TO  
THE SYMPOSIUM

2:45 pm – 3:45 pm

SPEAKER:  
SIMON BIGGS

CHAIR:  
WOLFGANG MUENCH

KEYNOTE:

## READING BIG DATA AS THE HETEROGENEOUS SUBJECT

Big data isn't intended to be read or analysed by humans. It's data for computer systems capable of ordering trillions of pieces of information to identify patterns that no human could ever hope to compute. Big data originates at a cosmic scale, associated with disciplines such as astronomy or meteorology. Nevertheless, big data can originate in quotidian contexts, in what Georges Perec refers to as the infra-ordinary; the everyday. Reading processes associated with big data, such as distant reading, might also help us gain insights into the infra-ordinary; to lift the anaesthetic veil of the everyday to allow a more vivid engagement with the iridescent ambient 'noise' that concerned Perec.

Iridescence is a property of things, such as soap bubbles or oil-slicks, that is only perceivable if one assumes multiple points of view. It is in shifting between variable loci of perception that the range of colours a soap bubble may reflect become visible, revealing the object's iridescence. This offers the possibility of a heightened sense of reality, where our own difference, in time and space, reveals the many aspects of something that otherwise appears homogeneous, singular and static. The multiplicities we associate with big data can also inform the vision of the observing subject, a kind of heteropticon (a complement of the concept of the panopticon), permitting an iridescent engagement with things. Inspired by the potential for big data to reconfigure the subject, this presentation explores the possibilities of a heteropticon engagement in the interactive artwork *Heteropticon* (2018), placing this in the context of similar projects by the author that explore multiple point of view renderings of three dimensional datasets to create complex layered and heterogeneous readings, such as *Babel* (2001), *Crosstalk* (2014) and *Dark Matter* (2017).

**Bio:** Simon Biggs is a media artist, writer and curator with interests in digital poetics, auto-generative and interactive systems. His work has been widely presented, including at Tate Modern, Tate Britain, Institute of Contemporary Arts London, Centre for Contemporary Arts Glasgow, Centre Georges Pompidou Paris, Akademie der Künste Berlin, Rijksmuseum Twenthe, Kunsthalle Bergen, Maxxi Rome, Palazzo della Arti Naples, Macau Arts Museum, Oi Futuro Rio de Janeiro, Arizona State Art Museum, San Francisco Cameraworks, Walker Art Center Minneapolis, Queensland Art Gallery and the Art Gallery of New South Wales. He has presented at numerous international conferences and lectured at Cambridge, Newcastle, Cornell, UC Davis, UC Santa Barbara, Ohio State, Paris 8, Sorbonne and Bergen Universities, amongst others. Publications include *Remediating the Social* (2012, editor), *Autopoeisis* (with James Leach, 2004), *Great Wall of China* (1999), *Halo* (1998), *Magnet* (1997) and *Book of Shadows* (1996). He is currently Professor of Art at the University of South Australia and Honorary Professor at the University of Edinburgh. His website is <http://www.littlepig.org.uk>

3:50 pm – 5:30 pm

CHAIR:  
WOLFGANG MUENCH

PANEL 1:  
ISABELLE DESJEUX &  
SURESH JESUTHASAN

PANEL 1:

## EMBODIED, SITUATED PATTERNS

### LOOKING FOR PATTERNS OR WHAT ART CAN LEARN FROM SCIENCE

A major challenge in big data is analysis, including the identification of patterns that reflect underlying structures and enable predictions. This two-person performance lecture will address notions of pattern recognition by scientists, artists, the public, and robots. We will present examples of data collection and their impact on public knowledge from stamp collecting, Wallace's Natural History Collection and 'Inventaire à la Prévert' [Inventory in the style of the French poet Jacques Prévert] to notions of Connectomics and Failomics. Drawing from our common experience in collecting data using a variety of methods and for different outcomes, we will discuss feedback loops, the role of observation in understanding the world around us, and the quirky habit of the human brain to look for – and find – patterns, reasons for things to exist, and even causations where there are only correlations.

**Bios:** Dr. Isabelle Desjeux is a molecular biologist who trained in the arts and now produces artworks that deconstruct the scientific process. As a full-time art practitioner, she runs an artist residency at Blue House International School. She has exhibited at Singapore Art Museum, ArtScience Museum, National Museum of Singapore as well as the Kenpoku Art Festival in Japan. She was the winner of the French Singapore New Generation Artists (2011), and is the recipient of a LASALLE Alumni Research Grant (2017).

Dr. Suresh Jesuthasan is a neuroethologist with a background in electrical engineering. He is Associate Professor of Behavioural Neurosciences in the Lee Kong Chian School of Medicine at Nanyang Technological University, Singapore. He also holds joint appointments at the Institute of Molecular and Cell Biology, and the Duke-NUS Graduate Medical School. He is principal investigator and head of the Brain States and Behaviour Laboratory at Nanyang Technological University.

PANEL 1:  
LOUIS-PHILIPPE  
DEMERS

### THE MACHINE USE OF HUMAN BEINGS: NEITHER REPRESENTATION NOR DATA

This presentation sheds light on several robotics art projects where morphology and situated-ness sometimes surpass data,



a sensing-effecting relation, as the material for the robots to act and react in the world. The discussion will approach the results of ‘outsourcing’ behavioural models to physical constructions where the apparent actions emerge from the interaction of the agent within the physical world with minimal computational efforts and representational models. Perceived behaviour and actual enactment (in the cybernetic sense of the word) do not necessarily equate. I will present lures and thaumaturgical strategies found in ‘intelligent systems’ and the way data is treated (or not). Finally, I will look at imposing movement on people and the paradoxical reactions to Inferno, my latest performance work.

**Bio:** Louis-Philippe Demers makes large-scale installations and performances for theatres, subway stations, art museums, and music events. Over the past two decades, he has participated in more than seventy artistic and stage productions and has built more than three hundred seventy machines. His work has been shown at major venues, such as Theatre de la Ville, Lille 2004, Expo 1991 and 2000, Sonambiente, ISEA, Siggraph and Sonar. He is also the recipient of numerous awards: the first prize of Vida 2.0, two recommendations at the Japan Media Arts Festival, the interactive prize for Lightforms 98, six prizes for Devolution, and two Helpmann awards. Demers was Professor of Digital Media and Exhibit Design at the Hochschule für Gestaltung, affiliated to Zentrum für Kunst und Medientechnologie (ZKM), Karlsruhe. He is currently Associate Professor in the School of Art, Design and Media, Nanyang Technological University, Singapore.

PANEL 1:  
NANCY MAURO-FLUDE

## EMBODIMENT AND THE NETWORKED ASSEMBLAGE IN THE TWENTY-FIRST CENTURY

This presentation critically explores the drives, forms and structures of visceral systems and networked assemblages. The routine embodied exchange in which our selves participate in daily life is a continuous ideokinetic exchange, as we engage with the world through our proprioceptive facilities. With the proliferation of networks these gestures are being captured and transmitted by the computational devices many of us hold close. Applications of deep machine learning algorithms acquire user profiles to model emotional states; neuromarketing nudges us to serve the ends of others. But what is the depth of pervasive consumer behaviour strategies? How are these physically inscribed, how far do these intentions go into the body? Digital optics, HCI design, and the shaping of the digital unconscious found in VR/AR toolkits (previously delegated to highly controlled psychology experiments) have made inroads into marketing. Apparati nudge and push us to sever all links with the evidence of our senses. These leveraged affordances in cognitive and non-cognitive assemblages discussed by N. Katherine Hayles (2016) are examined and extended upon. It is precisely in these unresolved gaps (and non-prescriptive but performative slippages highlighted by theorists, artists





and technologists) where the prominence of this is defined. Through case studies of experimental art and performances engaging in networked assemblages, artisanal data, creation of subjective datasets for artistic purposes, the proprioception of 'the user' is described and reimagined. Such transmissions include the repelling, mutating leaks, noise, digital obfuscation and other strategies of endurance, that lend themselves to embodied listening, are examined as artisanal products of adhoc networked assemblages.

**Bio:** Nancy Mauro-Flude specialises in experimental art forms and artisanal networked systems; she is interested in the demystification of technology, and the 'mystification' that lies in and through the performance of the machinic assemblage. Mauro-Flude has devised and curated extensively within the field of experimental 21 century art and has contributed to publications such as: *FLOSS+Art* London: Mute; *Intersecting Art and Technology in Practice: Techne/Technique/Technology*, Routledge; *Unlikely: Transdisciplinary Journal* for creative arts, University of Melbourne and Latrobe; *Live Interfaces*, Leonardo MIT Press. She is Assistant Professor Communications and New Media Department, National University Singapore. Her website is: [sister0.tv](http://sister0.tv)

5:30 pm – 5:45 pm

COFFEE BREAK

5:45 pm – 7:15 pm

PANEL 2:  
**THE FUTURE OF  
 KNOWLEDGE AND HERITAGE**

CHAIR:  
**NATASHA LUSHETICH**

PANEL 2:  
**INGRID M. HOOFD**

**THE ENDLESS QUEST  
 FOR KNOWLEDGE:  
 BIG DATA AND THE VIOLENCE  
 OF ACADEMIC IDEALISM**

Proponents of big data research in the humanities have argued that the gathering and visualisation of big data has the potential for unexpected insights. These advocates claim that, even if data visualisation is limited by technical choices, big data enriches the humanities. At the other end of the spectrum, opponents of big data lament the encroachment of techniques of automation onto the humanities arguing that such techniques signal the demise of the rich practice of close reading and the embodied-ness of interpretation. These critics also take issue with the claim to objectivity and depth around big data; they dismiss the digital humanities as a misguided way to help humanities departments survive the onslaught of neoliberalisation. This paper acknowledges the merit of both arguments, but proposes that big data signals a profounder



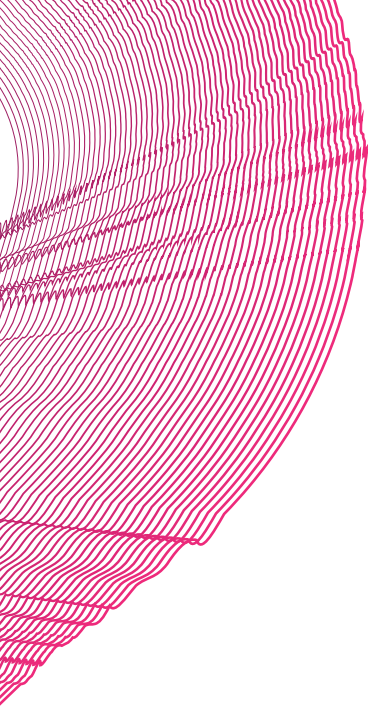
conundrum in research, one pivoting around the contradictory claims that big data both renders the object of analysis more superficial (*unknowable*) and more penetrable (*knowable*). This contradiction has not so much been ‘solved’ by big data, as Lev Manovich argues, but parallels a fundamental *aporia* of the Enlightenment enterprise. The institutionalisation of this enterprise has, in turn, deconstructed itself by exposing the limits of its own idealism around presumed ‘depth’ and ‘objectivity.’ The increasing automation of the quest for total knowledge has exacerbated what this paper, following Jacques Derrida, calls the ‘auto-immune aspect’ of academia by way of extensive datafication of staff and student behaviour and output. The crisis of the university today consists not of its neoliberalisation, but of the acceleration of the university’s unfinishable mission through an enmeshment and displacement of this *aporia* into technologies of automation like big data tools.

**Bio:** Dr. Ingrid M. Hoofd is an Assistant Professor in the Department of Media and Culture at Utrecht University, the Netherlands. Her research interests are issues of representation, feminist and critical theories, philosophy of technology, game studies, and information ethics. She is the author of *Higher Education and Technological Acceleration: the Disintegration of University Teaching and Research* (Palgrave 2016), and *Ambiguities of Activism: Alter-Globalism and the Imperatives of Speed* (Routledge 2012). Her research analyses the ways in which alter-globalist activists, as well as left-wing academics, mobilise what she calls ‘speed-elitist’ discourses and divisions in an attempt to overcome gendered, raced, and classed oppressions worldwide. These analyses outline the accelerated tensions and relationships between various new technologies (electronic games, e-learning platforms, and social media) and activist-academic moral imperatives from a critical-cultural and deconstructionist perspective.

PANEL 2:  
NICOLA HORSLEY

## ACADEMIC FREEDOM IN A MEDIUM WITHOUT FREE WILL: THE FUTURE OF HISTORICAL RESEARCH

Big data architectures are crossing into the domain of cultural heritage in the form of infrastructure projects that aggregate the metadata and, to a lesser extent, data held as part of archival collections. Data aggregation promises to expand access to cultural heritage collections, or at least metadata describing them, and increase the possibilities of historical research. That the anterior move from analogue to digital has been embraced, at least at some level, across the archival sector, is no trivial development as it mandated a revision of the fundamental practices of many institutions. Societal-level change can therefore reshuffle institutions’ priorities, necessitating alignment with technical processes that encourage standardisation across the sector. But are we also witnessing the precursor to data linking on a scale that represents a new medium for historical research? This paper suggests that changing use of archival collections has disrupted



some of the fundamental tenets of both research and cultural heritage preservation practice. Firstly, the traditional hierarchical structure of archives that facilitates researchers' deductive methodologies was reported to be losing significance as it was undermined by Google-style keyword searching. Secondly, the search engine use that has become hegemonic among researchers was compared to being a passenger in a self-driving car, in that the visible human becomes passively dependent on the programming of an invisible human, exchanging 'free will' for 'solutions'. Researchers benefit from the removal of 'noise', leaving only 'signal' data but withholding knowledge of alternative routes diminishes their academic freedom. This paper draws on original research to discuss digital obfuscation, *apophenia* and the 'folding' of historical realities.

**Bio:** Dr. Nicola Horsley is a research fellow at DANS, Royal Netherlands Academy of Arts and Sciences, where she researches how a focus on 'big data' elides important issues about the current knowledge landscape. Her work problematises the concepts of data and the historical record, investigating how humanities research objects may become 'hidden'. Nicola's qualitative research critiques the marginalisation of the social in various discourses and explores the dominance of scientific and technical knowledge as bases for policy and practice. Her co-authored book, *Challenging the Politics of Early Intervention: who's 'saving' children and why*, explores the scientific evidence base for early intervention policies; and the related article 'Brave new brains: sociology, family and the politics of knowledge' was the winner of *The Sociological Review's* Prize for Outstanding Scholarship 2016.

PANEL 2:  
KIVEN STROHM

## DATA FUTURES, OR, THINKING DATA AS HERITAGE

Data and heritage share a concern for the past and future. Heritage has traditionally been concerned with the past in the present. It is a social and cultural process whereby the past is being made and re-made: "the idea of heritage not so much as a 'thing', but a cultural and social process, which engages with acts of remembering that work to create ways to understand and engage with the present" (Smith). At the same time, heritage is about the future of a people (humanity, nation, etc.). Heritage practices enact new realities by assembling and reassembling bodies, techniques, technologies, materials, values, temporalities, and spaces. It is a practice of world-making, enacting different realities and radically different futures. Data, on the other hand, is about the past and what it can tell us about the future. However, it is about how the past (the movement and actions of people and things) can be used for calculation and predictability. Whether it is about predicting or purposely directing, it is about the control of the future. As the ownership of data takes on increasing importance, with people demanding access and control over how data is collected and used, questions about what we will do with the ubiquity of data has become paramount. How might data as heritage – or data

futures – configure the possibility of a (data) practice of world making, of future assembling, of new realities?`

**Bio:** Dr. Kiven Stroh is Assistant Professor of Anthropology at the National University of Singapore. His research focuses on contemporary art (public and socially-engaged/participatory art), collaborative and experimental ethnography, aesthetics/politics, ontology and new materialisms, and speculative anthropologies. He has a regional focus on the Middle East (Palestine/Israel and Egypt) and, more recently, Southeast Asia. He is presently working on a book project entitled, *Experiments in Living: Art and Politics in Late Colonial Palestine/Israel*.

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7:15 – 8:15 pm

KEYNOTE:

## AND AFTER THE APOCALYPSE? NOTES ON INEVITABILITY, UNPREDICTABILITY AND POSSIBILITY

SPEAKER:  
**FRANCO BERARDI**  
(BY SKYPE)

CHAIR:  
**NATASHA LUSHETICH**

The most venerated oracle of the ancient world was in Delphi. The high priestess in charge of the oracle was named Pythia. This name is derived from Pytho, which, in mythology, was the original name of Delphi. In etymology, the Greeks derived the name of this place from the verb πύθειν (púthein), 'to rot'. πύθειν refers to the sickly sweet smell of the monstrous Python's decomposing body after she was slain by Apollo. Pythia was punk. Punk is the decomposition in which we can find the only truth of life. I'll speak of the many forms of implication of the future in language: code, data and prescription, injunction, and prophecy. I'll speak of the multiple layers of possibility, inscription, necessity and probability.

Prophecy is based on the smell of the rotting organism (púthein) and is expressed in words that do not have an intended meaning but open a range of possible interpretations. Enigma and secret. Truth, ambiguousness and infinite interpretation. Psychomanteia is the investigation of the future taking shape in the social mind. Big data and the inscription of automatisms equal a prescriptive future. The task of the oracle is not to predict the apocalypse; the apocalypse is already taking place. The task of the oracle is to divine how to come to terms with the apocalypse.

**Bio:** Franco 'Bifo' Berardi is an internationally renowned theorist, cultural worker, and activist. He is a frequent public speaker at cultural institutions and universities worldwide. He is also the author of dozens of influential books and articles, translated into all major languages. Among his works are: *Futurability - The Age of Impotence and the Horizon of Possibility* (2017); *Heroes: Mass Murder and Suicide* (Verso, 2015); *After the Future* (2011); *The Soul at Work: From Alienation to Autonomy* (2009) And *Precarious Rhapsody: Semio-Capitalism and the Pathologies of the Post-Alpha Generation* (2009).

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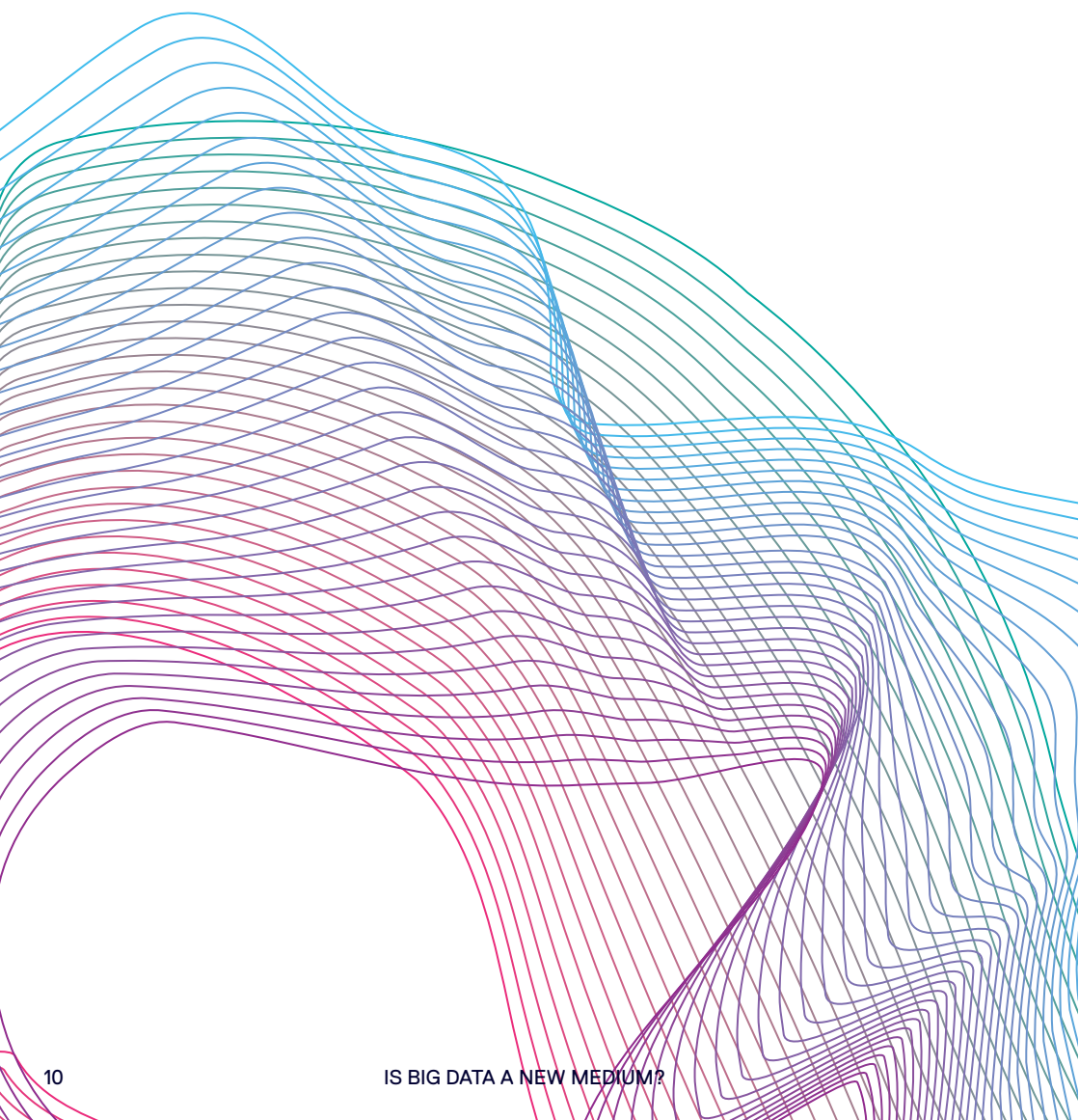
8:30 pm – 10:00 pm

BUFFET DINNER

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# DAY 2

# 8 MAY 2018



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9:00 am – 9:30 am

COFFEE

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9:30 am – 10:30 am

KEYNOTE:

## THE ALGORITHM DISPOSITIF: RISK AND AUTOMATION IN THE AGE OF #DATAPOLITIK

SPEAKER:

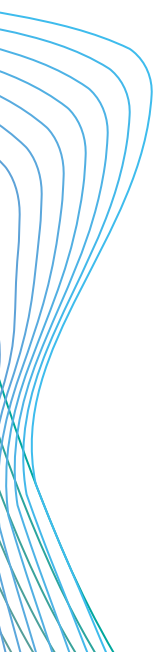
DAVIDE PANAGIA  
(BY SKYPE)

CHAIR:

NATASHA LUSHETICH

This presentation explores the medium of the algorithm, a technology developed for managing movement. The *algorithm dispositif* regards a dynamic psycho-perceptual milieu, participant in the disposition of worlds that at once limit and enable the movement of bodies in space and time. I argue that, more than anything, the algorithm dispositif betrays a theory of action whose origins lie in Aristotelian aesthetics and metaphysics. The form of power identified herein as #datapolitik extends and modulates those origins in important and considerable ways by introducing a negative feedback ontology that produces an intuition heretofore unavailable but made operational by the algorithm dispositif: information behaves. Assessing the implications of this insight, the presentation concludes with the following provocations: 1. We have yet to develop the critical tools to acknowledge and engage the power dynamics of #datapolitik; 2. Surveillance is not only the wrong metaphor, but the wrong way to think about the power dynamics of #datapolitik; and 3. #datapolitik is a police power.

**Bio:** Dr. Davide Panagia is Associate Professor of Political Science at University of California, Los Angeles (UCLA). He is a political and cultural theorist with multidisciplinary interests including contemporary political theory and the history of political thought, aesthetics, media studies, interpretive methodologies, literary studies, and cinema. His work specialises in the relationship between aesthetics and politics. His most recent book publications include *Rancière's Sentiments* (Duke University Press, 2018), *Ten Theses for an Aesthetics of Politics* (Minnesota University Press, Forerunners, 2016) and *Impressions of Hume: Cinematic Thinking and the Politics of Discontinuity* (Rowman and Littlefield, 2013). His current research project, #datapolitik, is a study of police powers in the age of cybernetics. He is an affiliated researcher in the Digital Cultures Lab at UCLA and the 2017-2018 Clark Professor at UCLA's Center for 17th & 18th Century Studies co-directing a series of conferences on the theme of 'Becoming Media'.



# BIOMETRIC DATAFICATION IN GOVERNMENTAL AND CONSUMER SPHERES

SPEAKER:  
BTIHAJ AJANA

CHAIR:  
NATASHA LUSHETICH

In the last decade, biometrics has become a widely used technology of securitisation and identity management. From border control and asylum regulation to the management of social services and medical records, governments and corporations make increasing use of biometric systems. Biometrics has also entered the consumer sphere (e.g. Apple's iPhones using fingerprints and facial scans for unlocking devices). With the rise of fitness-trackers and wearable technologies, consumers have access to an abundance of techniques that enable routine forms of digital self-tracking and biometric monitoring. In this talk, I consider three domains where biometric techniques are used to manage the body. The first two are interrelated and concern the use of biometrics in the management of refugees. They refer to border security and humanitarianism. With the recent 'refugee crisis', various measures have been adopted by governments across Europe and beyond to manage the flow of forced migrants and administer support to asylum seekers. Every day, thousands of people have their fingerprints, eye scans, photographs, names, and nationality recorded and verified on various databases. Border officials, governments and security contractors use this data to monitor and track individuals while refugee agencies and aid workers use the data to provide vital services to refugees. The 'datafication of the body' is therefore emerging as a major trend in both the security and the humanitarian responses to the current refugee crisis. The third domain shifts the focus towards what I call 'self-inflicted biometrics', that is, the myriad practices of self-tracking that are adopted voluntarily by a growing number of people for the purpose of managing their health and monitoring their everyday performance and productivity. In juxtaposing these domains, I examine biometrics not only as a top-down governmental mechanism but also as a bottom-up personalised practice. This can help shed light on the complex and nuanced nature of contemporary biometrically-driven surveillance culture and the various ethical and political questions it raises.

**Bio:** Dr. Btihaj Ajana is Senior Lecturer in the Department of Digital Humanities, King's College, London. She was recently a Marie Curie Fellow and Associate Professor at Aarhus Institute of Advanced Studies in Denmark. Her academic work is interdisciplinary in nature, spanning areas of digital culture, media praxis, and biopolitics. She is the author of *Governing through Biometrics: The Biopolitics of Identity* (Palgrave, 2013) and editor of *Self-Tracking: Empirical and Philosophical Investigations* (Palgrave, 2017) and *Metric Culture: Ontologies of self-tracking practices* (Emerald, 2018 forthcoming). She is also the director of two recent films, *Quantified Life* (2017) and *Surveillance Culture* (2017, with Anders Albrechtslund).

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11:30 am – 11:45 am

COFFEE BREAK

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11:45 am – 1:15 pm

PANEL 3 :

## DIGITAL OPTICS, FREE LABOUR AND SELF-SURVEILLANCE

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CHAIR:  
NATASHA LUSHETICH

PANEL 3:  
RAJESH KUMAR

## BIG DATA AND INDIA: DOES AADHAAR VIOLATE THE RIGHT TO PRIVACY?

*Aadhaar* is the world's largest big data project. It is a 12-digit unique identification number issued to Indian citizens based on their biometric data. So far 1.19 billion Indians have been issued *Aadhaar* cards. There has been a tussle between the Indian government and the Supreme Court about whether *Aadhaar* should be compulsory for availing government services. In a historic judgment, in August 2017, the Supreme Court declared the right to privacy the seventh fundamental right in India. Heated debates about the validity of *Aadhaar* were the prime motive behind this landmark judgment. The Supreme Court stated that *Aadhaar* is voluntary and not mandatory. But the government has been making *Aadhaar* mandatory for availing state services; for example, for accessing the public distribution system, getting old age pension and taking advantage of National Rural Employment Guarantee Program. The government has also ordered that *Aadhaar* be linked to bank accounts, mobile SIM cards, and Employee Provident Fund. While the government contends that the *Aadhaar* project is important for bringing transparency and efficiency to the delivery of social and economic schemes, human rights activists have challenged the government's push to make *Aadhaar* mandatory for virtually every government service. The advocates of Big Data exceptionalism argue that regulating the collection of data is impossible and even undesirable. So the focus should be exclusively on preventing harmful uses. In response, Kak and Schultz have argued that unregulated data collection opens up new modes of surveillance. Leakages of *Aadhaar* data and cyber security breaches have enraged social activists who have accused the government of making *Aadhaar* mandatory and for being extremely sloppy in maintaining the security of the data. This paper undertakes a comparative analysis of the *Aadhaar* controversy in an effort to understand how a balance can be found between the two contrasting views.



The paper will also make suggestions regarding how the drawbacks of *Aadhaar* can be handled technically, socially, and constitutionally.

**Bios:** Dr. Rajesh Kumar is Associate Professor of Political Science at PPN College, Kanpur, India. He has been the Charles Wallace India Trust Visiting Fellow to the University of Edinburgh, Scotland. He is also the recipient of the prestigious Kodikara Award offered by Regional Centre for Strategic Studies, Colombo. He specialises in how information technology has been impacting the South Asian social and political systems. He has published widely and presented papers at many national and international conferences.

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PANEL 3:  
EZRA CLAVERIE

## DISMOUNTS FROM THE DATA TREADMILL: NETFLIX AND THE REFUSAL OF WORK

This presentation draws on Dallas Smythe's critique of television, updated for the internet age by Christian Fuchs, to build on Franco Berardi's discussions of the refusal of labour. It proposes that we treat Big Data as a medium in the physical sense, a plenum that internet-connected persons generate, and through which they move, powered by citizens yet emitted by servers owned by corporations. Citizens cannot alter the field lines of this medium without altering the habitus that our travels through it ingrain within us. Following Theodor Adorno's critique of 'free time' under capitalism, Smythe argued that because television enters our homes for free, watching TV constituted labour on behalf of advertisers that paid TV stations for our attention; in the network era, every commercial break interpellated the audience to memorise soap jingles and movie taglines. Fuchs shows how online social media extends this logic. When we log into Facebook or Twitter, we become both the unpaid content creators and the audience for such sites, but not customers, since we don't pay to use them. Netflix's video streaming service monitors our viewing habits much more closely than a Nielsen set meter, and it thereby conscripts us: we become simultaneously customers and unpaid workers. Netflix records our every pause and stop, cross-checking them against whatever crossed the screen at that moment, and now that Netflix produces shows, its producers can use this data to predict our 'tastes' more minutely than ever. But if we volunteer our labour every time we log in, can we refuse labour only by logging off, or does the medium of Big Data offer no ways to refuse to participate in our own instrumentalisation? This presentation thinks through political and aesthetic answers to this question while rejecting both anti-screen Luddism and the self-serving utopianism of tech-sector venture capitalists.

**Bios:** Dr. Ezra Claverie has a PhD in English from the University of Illinois, Urbana-Champaign, and he teaches in the Writing Program at NYU Shanghai. His primary research looks at ways Hollywood studios use comic-book superheroes to drive transmedia franchises, organising cultural production not just temporally within

film series but spatially, across subsidiaries within a conglomerate and among licensees without. His work reads superhero films not as modern or postmodern analogues of myth, but as allegories of the management of intellectual property, expressing values that oppose the pro-social values of the characters that headline the films themselves. *The Journal of Popular Culture*, *Intensities: The Journal of Cult Media*, and *Jump Cut: A Review of Contemporary Media* have published his work. His essay 'Ambiguous Mr. Fox: Black Actors and Interest Convergence in the Superhero Film' won the Carl Bode Outstanding Article award published in *The Journal of American Culture* for 2017.

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PANEL 3:  
RANDALL PACKER

## GIVING UP YOUR DATA

Global communications have challenged and penetrated all previous notions of the divide between public and private space. This presentation looks at artistic projects that engage self-surveillance to critique changing privacy in our social relations and online interactions. How have artists exploited issues of privacy and Big Data to offer insight and expose our daily practices that permeate the lives of those who willingly engage in giving up their data to social media and other forms of telecommunications? As our personal lives become increasingly public, exposed, and exploited, how can we develop a critical stance on these developments and raise thoughtful criticism? The presentation will offer two artworks that have gained considerable attention for their investigation of digital privacy: Hasan Elahi's *Tracking Transience 2.0* (2003-present) and Eva and Franco Mattes' *Life Sharing* (2000). Both of these projects have successfully served to raise awareness about surveillance, spying, and stalking in the rapidly digitised world of Big Data.

**Bios:** Since the 1980s, Packer has worked at the intersection of interactive media, live performance, and networked art. He has received critical acclaim for his socially and politically infused critique of media culture, and has performed and exhibited at museums, theaters, and festivals internationally. Packer is a writer and scholar in new media, most notably the co-editor of *Multimedia: From Wagner to Virtual Reality*, and the author of his long running blog: Reportage from the Aesthetic Edge. He has taught multimedia at the University of California Berkeley, Maryland Institute College of Art, American University, California Institute of the Arts, Johns Hopkins University, and The Museum of Modern Art. He is Associate Professor of Networked Art in the School of Art, Design and Media, Nanyang Technological University, Singapore, where he founded and directs the Open Source Studio (OSS) project, an educational initiative exploring collaborative online research and teaching. At NTU, he has organised the Art of the Networked Practice Online Symposium, a global event featuring participants from more than 40 countries. Currently he is directing the Third Space Network (3SN), an Internet broadcast channel for live media arts and creative dialogue.

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1:15 pm – 2:30 pm

LUNCH

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2:30 pm – 3:30 pm

KEYNOTE:

## BEHERE – THE PAST IN THE PRESENT

SPEAKER:  
MASAKI FUJIHATA

CHAIR:  
WOLFGANG MUENCH

My current Hong Kong project *BeHere –The Past in the Present* focuses on individual stories, personal histories, and micro-narratives picked up from the photo archives in libraries across the internet, mostly as street snapshots. When photos lose their original purpose, they become an object to be read by a third person. Obviously, each photo contains much more than the original purpose, and this is where unconscious memory resides. In this project, we tried to reconstruct the various photographed scenes as 3D model data, which can be viewed on smartphones or tablets by using AR technology on the street. The past is here overlaid in the present. Through media evolution, private memory is now made public on the internet; it is socially opened to the public. Already, there are techniques that transform images beyond photography, such as 3D models and VR/AR. This project combines the most advanced technologies that establish the platform for looking back at history and human identities. It organises and enhances memory. *BeHere* will launch in December 2018.

**Bio:** Masaki Fujihata is a pioneer in new media art, renowned in Japan as well as abroad. His CG work was much celebrated in the 1980s, before his interests shifted to creating 3D sculptures from data using 3D printing, as in his CNC-routed *Geometric Love* 1987, the stereo-lithography *Forbidden Fruits* 1989, and his small scale sculptures using Micro Machine technology. In the mid-90s, Fujihata produced canonical pieces of what would later be called 'interactive art', *Beyond Pages* 1995 and *Global Interior Project* 1995. His experiments with GPS technology beginning in 1992 take a rather uncommon technical tack in gathering data, making for a meticulously composed and unexampled series of cyber-spatial creations that can only be called 'the cinema of the future', or 'the shape of media to come'. His 2003 *Field-work@Alsace* compiled interviews about international borders. The 2009 musical piece *Simultaneous Echoes* was created in Northern Ireland. Fujihata's latest signature piece is the 2012 *Voices of Aliveness*, created in Nantes, France and assembling the shouts of bicyclists in virtual space. *Global Interior Project #2* won the 1996 Golden NIKA Award, *Voices of Aliveness* won an Ars Electronica Award of Distinction in 2013, and *Simultaneous Echoes* received the 2010 Ministry of Education Award for Fine Arts.

3:30 pm – 5:00 pm

CHAIR:  
WOLFGANG MUENCH

PANEL 4:  
GRAYDON WETZLER

PANEL 4:  
GENERATIVE  
ARCHITECTURES

BIG SISL,  
INFRATHIN RUBBER HOSE

This paper offers a provocation for big data. Our locus solus is SISL (or Serial Interception Sequence Learning) — a banal computer game designed to study perceptual-motor sequence learning. While SISL was originally deployed to analyse the operating characteristics and information processing constraints of the human implicit memory system, the game has more recently been solicited to write crypto-primitives used for authentication protocols. Rather than an analytic body, these researchers have posited the human memory system to situate an embodied method for designing coercion-resistant security systems. The trick is to exploit the dissociative information processing characteristics of the human cortico-striatal memory system by deploying SISL and user to co-write non-reportable cryptographic data up in the cut, between the latter's basal ganglia and motor cortical areas. To leverage the critical/creative task, I draw on a pair of speculative archeologies: The first recalls the Chronocycle graph technique of Frank and Lillian Gilbreth as an analog to SISL. I next recall the early 20th Century projects of Albert Köster's "historische Inszenierungen", (historical performances) — a multimodal and exploratory alternative to the auto-mediated Chronocycle. Köster's approach left data open to the contingencies of embodied experiment. To educe creative counter-schemas for disrupting SISL posited data, I look at recent manifesto wayfinding as a biologically grounded and design strategy for constructing "interactive infrastructures" enabling social interaction between place and people, as well as, between places and things. Whereas SISL operates an exploit where on one substrate concurrently supports episodic memory and spatial navigation, I look to challenge that space with a pair of aesthetic hacks— Cory Archangel's 'Data Diaries' project and the EDT/ b.a.n.g. lab's 'Transborder Immigrant Tool' — able to give body to new paradigms for mediating (designing and appropriating) data.

**Bio:** Dr. Graydon Wetzler (PhD, New York University) is a scholar working at the intersections of media research and practice, performance studies and STS (Science, Technology and Society). His current research is featured in two forthcoming collections, *Surveillance, Architecture and Control: Discourses on Spatial Culture* (Palgrave Macmillan) and *Geomedia and the City* (De Gruyter). His past contributions include media and archival practice for social activist initiatives that include the Hemispheric Institute of Performance and Politics (NYU), and the Center for Critical Analysis of Social Difference (Columbia University). All of this work develops from his longer creative practice rooted in experimental filmmaking.

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## THE SPEED OF SINGAPORE: ARTISTIC PRACTICES AND METHODOLOGIES AS ACCESSIBLE/QUANTIFIABLE DATABASES

My artistic work and practice-based research examines the meaning of culture making in fast-paced Singapore, where the environment, culture and heritage are being re-written on a daily basis. In this presentation, I will focus on three on-going works that explore artistic practices and methodologies as a generative structure. The first is *Life Circuit* (2009 - present). An extension of the artist's body, this work fuses modified gadgets and audio-visual components to replace the physical senses of sight, hearing and speech. The second is *Video Car* (2010 - present) in which an audio-video-car amalgam is installed in marginal locales. The third work, *Converse Construct: Three Humps* (2006 - present), explores three art institutions - the National Museum of Singapore, Singapore Art Museum, and National Gallery Singapore. Once relics of Singapore's colonial past, these institutions are, today, generative cultural databases. In investigating the augmented body, the augmented vehicle, and 'augmented' or stratified cultural institutions, this presentation reflects on the changing nature of the data-rich human-machine-city landscape.

**Bio:** Urich Lau is a visual artist, independent curator and art educator based in Singapore. Working in video art and photography, he has presented works in Singapore, Australia, China, France, Germany, Hong Kong, Indonesia, Japan, Malaysia, New Zealand, Philippines, Thailand, South Korea, Serbia, Taiwan, Thailand, United Kingdom, USA and Uzbekistan. Exhibitions include Singapore Biennale 2013, VII Tashkent International Biennale of Contemporary Art, the 7th Geumgang Nature Art Biennale and Pyeongchang Biennale 2017. He is a lecturer at LASALLE College of the Arts, a founding member of the art collective INTERMISSION, a member of The Artists Village, Instinctive (INSTINC Art Space), and resident artist at Goodman Arts Centre in Singapore.  
<https://sites.google.com/site/urichlauwy/>

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## DATA IN, DATA OUT – THE MACHINERY OF ARTWORK GENERATORS

I will examine the claim that AI-generated visual art or music can be 'indistinguishable' from human creations. I will question not so much the extent to which it might be true, but whether and

how it might have any meaning. Two kinds of generative deep learning architectures for image ‘style transfer’ and for musical improvisation will be explored in some detail. I hope this will provide terms and concepts that can be used in a more nuanced approach for addressing questions of authorship, audience, and interpretation that arise in our age of mechanical artwork production.

**Bio:** Dr. Lonce Wyse is an Associate Professor with the Department of Communications and New Media at the National University of Singapore, and directs the Arts and Creativity Lab of the Interactive and Digital Media Institute at NUS. He holds a PhD in Cognitive and Neural Systems (Boston University, 1994). He is on the editorial boards of the *Computer Music Journal* and of *Organized Sound*. His current research focus is on real-time musical communication, networked music, and neural networks for interactive sound design.

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5: 15 pm – 5.30 pm

COFFEE BREAK

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5:30 pm – 6.30 pm

KEYNOTE:  
**XYZ: SURFACE DATA  
AND A PLANETARY IMAGE**

SPEAKER:  
**JUSSI PARIKKA**

CHAIR:  
**WOLFGANG MUENCH**

This talk will focus on geographies of data and how data, itself, is formative of new ways of seeing and perceiving the planetary surface. Drawing on work by Louise Amoore, Benjamin Bratton, Sean Cubitt and other theorists, it addresses media techniques of mapping geographical and geological areas. Histories of aerial imagery and the composite surface image are put into conversation with recent themes in critical data studies as well as artistic practices. The talk expands to discuss Abelardo Gil-Fournier’s recent transmediale workshop and artistic work on machine learning and geographic data sets (such as Google Earth Engine) as related to an emerging area of imaging. Identification of surface forms (architectural and other) and prediction and understanding of surface level changes (crops and other) is an increasingly big data industry but in this case, discussed as an emergence of a certain kind of a large scale moving image: the temporality of the machine learned image of geographical areas urban and rural. The talk discusses this work as an example of art practices that relate to the work of data and visual culture and aim to deal with issues pertaining to critical geographies and architecture too. Underpinning this investigation is another, broader question about art methods in data culture. The talk draws on collaborative research with Abelardo Gil-Fournier.

**Bio:** Dr Jussi Parikka is Professor at the Winchester School of Art, University of Southampton, UK. His books include the media ecology-trilogy *Digital Contagions* (2007, 2nd. ed 2016), the award-winning *Insect Media* (2010) and most recently, *A Geology of Media* (2015), which addresses the environmental contexts of technical media culture. This topic was continued in the short booklet

*A Slow, Contemporary Violence: Damaged Environments of Technological Culture* (2016). In addition, Parikka has published such books as *What is Media Archaeology* (2012) and edited *Writing and Unwriting (Media) Art History* (2015, with Joasia Krysa) on the Finnish media art pioneer Erkki Kurenniemi. He is also the co-editor of *Across and Beyond: – A transmediale Reader on Post-digital Practices, Concepts, and Institutions* (2016, co-edited with Ryan Bishop, Kristoffer Gansing and Elvia Wilk). Parikka's website/blog is at <http://jussiparikka.net>.

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6:30 pm – 6:45 pm

NATASHA LUSHETICH

## CONCLUDING REMARKS

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7:00 pm – 9:00 pm

BUFFET DINNER

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## NOTES

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