

Contentious Data: A One-day Event on the Poli- tically Activ of Big Data

Speakers include:
Sandra Braman (Texas A&M University), **Alison Powell** (London School of Economics), **Hisham al-Miraat** (Digital Rights Morocco), **Linné Taylor** (Tilburg Institute for Law, Technology and Society), **Dorien Zandbergen**

(University of Amsterdam), **Miren Gutierrez** (Universidad del Deusto), **Denis Rojo aka Jaromil** (dyne.org), **Geert Lovink** (Institute for Network Cultures), and **Stefania Milan** (University of Amsterdam).

University Theatre, University of Amsterdam,
Nieuwe Doelenstraat 16-18, 1012 CP Amsterdam
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Contentious Data: Executive Summary

Contentious Data, held at the University of Amsterdam on September 15-16, 2016, was the kick-off event of DATACTIVE, an interdisciplinary research project hosted by the Department of Media Studies at the University of Amsterdam and funded by a Starting Grant of the European Research Council awarded to Stefania Milan as Principal Investigator. **Contentious Data** brought together scholars and practitioners to critically explore the politics of datafication and massive data collection from a grassroots perspective. The event summoned colleagues from disciplines as diverse as political science, media studies, informatics, science and technology studies, journalism, law, philosophy and development studies, with the goal of collectively reflecting upon the following questions: How do people resist corporate privacy intrusion and government surveillance? How can civil society take advantage of the possibilities for civic engagement and advocacy provided by the so-called 'big data'? How does datafication alter the dynamics of the transnational civil society?

Day 1, open to a generalist audience, introduced the project to the general public and collected insights from renowned academics and practitioners in the field of data activism. Day 2 consisted of an invitation-only workshop with three thematic roundtables designed to spur an interdisciplinary debate around three core themes of the DATACTIVE project: 'reactive' data activism, 'proactive' data activism, and methods and tools to study data activism.

Contentious Data attracted an audience of over a hundred people over the two days. It was made possible thanks to the crucial funding of the European Research Council (ERC), the Amsterdam Centre for Globalisation Studies (ACGS), the Amsterdam School for Cultural Analysis (ASCA), and the Amsterdam Institute for Social Science Research (AISSR).



European
Research
Council



List of participants

Invitees

Hisham Al-Miraat, Bodó Balázs, David Berry, Sandra Braman, Emmanuel Didier, Paul Dourish, Jennifer Gabrys, Seda Gürses, Miren Gutiérrez, Vladan Joler, Geert Lovink, Alison Powell, Melanie Rieback, Richard Rogers, Denis Roio aka Jaromil, Tijmen Schep and Linnet Taylor

DATACTIVE team

Mahsa Alimardani, Davide Beraldo, Jonathan Gray, Frederike Kaltheuner, Becky Kazansky, Stefania Milan, Niels ten Oever, Lonneke van der Velden, Jeroen de Vos, Kersti R. Wissenbach

Speakers' bios

Hisham Al-Miraat is a medical doctor by profession and the former advocacy director for *Global Voices*, a global community of bloggers and technologists advocating freedom of expression online. In 2011, during the Arab Spring, Hisham helped the pro-democracy movement to get its message through on the internet by launching a couple of online advocacy initiatives and citizen journalism platforms, including Mamfakinch.com, winner of the *2012 Google Breaking Borders Award*. In 2014 he founded the Moroccan Digital Rights Association. In 2015, he helped Privacy International to uncover unlawful electronic surveillance against intellectuals, journalists and human rights activists in his country.

Bodó Balázs is an economist and piracy researcher at the Institute for Information Law (IViR) at the University of Amsterdam. He was a Fulbright Visiting Researcher at Stanford University's Center for Internet and Society in 2006/7 and a Fellow at the Center between 2006 and 2012. Since 2012 he has been a Fulbright Fellow at the Berkman Center for Internet and Society at Harvard University. Since 2013 he is based in Amsterdam, working as a researcher and a Marie Curie Fellow at IViR.

David M. Berry is Professor of Digital Humanities and a co-Director of the Sussex Humanities Lab, in the School of Media, Film and Music, at the University of Sussex. His most recent book is *Critical Theory and the Digital* and the edited collection *Postdigital Aesthetics: Art, Computation and Design* (with Michael Dieter).

Sandra Braman is Professor of Communication and Abbott Professor of Liberal Arts at Texas A&M University. Her books include *Change of State: Information, Policy, and Power*, and the edited volumes *Biotechnology and Communication: The Meta-Technologies of Information*; *The Emerging Global Information Policy Regime*; and *Communication Researchers and Policy-making*, in addition to almost 100 scholarly journal articles and book chapters. She is Editor of the Information Policy Book Series at MIT Press and Fellow of the International Communication Association. Braman is former Chair of the Communication Law and Policy Division of the International Communication Association and former Head of the Law Section of the International Association of Media and Communication Research. She has held visiting professorships at the University of Bergen (Norway), Federal University of Rio de Janeiro (Brazil), Södertorn University (Sweden), and the University of South Africa (UNISA, South Africa).

Emmanuel Didier is a founding member and permanent researcher at Epidopo (Epigenetics, Data, Politics), a joint research unit funded by the French Centre national de la recherche scientifique (CNRS) and the University of California, Los Angeles (UCLA), and located in the latter. He is an associate researcher with the Centre Maurice Halbwachs (CNRS, Ecole normale supérieure and EHESS) and a member of the Center for Study of Invention and Social Process at Goldsmiths, University of London. He teaches 'Socio-history of statistics' at the Ecole Nationale de la Statistique et de l'Administration Economique (ENSAE) and at the Ecole Normale Supérieure, and 'Bio-Data', 'The Social and Political Consequences of Big Data in Biology and Medicine' at UCLA.

Paul Dourish is Chancellor's Professor of Informatics in the Donald Bren School of Information and Computer Sciences at the University of California, Irvine, with courtesy appointments in Computer Science and Anthropology, and an Honorary Senior Fellow in Computing and Information Systems at the University of Melbourne. His research combines topics in human-computer interaction, social informatics, and science and technology studies. He is the author of *Where the Action Is: The Foundations of Embodied Interaction* (MIT Press, 2001), and, with Genevieve Bell, *Divining a Digital Future: Mess and Mythology in Ubiquitous Computing* (MIT Press, 2011). His most recent book, *The Stuff of Bits: An Essay on the Materialities of Information* (2017), is currently in production. He is a Fellow of the ACM, a member of the SIGCHI Academy, and a recipient of the AMIA Diana Forsythe Award and the CSCW Lasting Impact Award.

Jennifer Gabrys is Reader in the Department of Sociology at Goldsmiths, University of London, and Principal Investigator on the ERC-funded project Citizen Sense, which engages with inventive approaches to participation and monitoring in order to test and query environmental sensing technology. Gabrys' books include a techno-geographical investigation of environmental sensing, *Program Earth: Environmental Sensing Technology and the Making of a Computational Planet* (University of Minnesota Press, 2016); and a material-political analysis of electronic waste, *Digital Rubbish: A Natural History of Electronics* (University of Michigan Press, 2011). Her work can be found at citizensense.net and jennifergabrys.net.

Seda Gürses is currently a visiting research collaborator at the Center for Information Technology Policy (CITP), University of Princeton, where she worked as a postdoctoral research associate in 2015-2016. She works on privacy and requirements engineering, privacy enhancing technologies and surveillance. Prior, she was a postdoctoral fellow at the Media, Culture and Communications Department at the Steinhardt School, New York University (NYU) and at the Information Law Institute at NYU Law School, where she was also part of the Intel Science and Technology Center on Social Computing. She completed her PhD at the University of Leuven, in the Privacy and Identity Management Group of the Department of Electrical Engineering.

Miren Gutiérrez is the director of the Expert Programme 'Data analysis, research and communication' of the University of Deusto, San Sebastian, where she has been lecturing in Communications since 2014. She is also Research Associate at the Overseas Development Institute (ODI) and advisor of the Climate and Knowledge Development Network in London. She was Communications Manager at the ODI Climate Programme (London, 2013-2014); Index on Censorship Communications Director (London, 2011-2012), Greenpeace Spain Executive Director (Madrid, 2010-2011); MarViva Communications Director (Mallorca, 2009-2010); Inter Press

Service Editor in Chief (Rome, 2003-2009); El Pais Correspondent (New York, 2001-2002); La Prensa Business Editor (Panama, 1996-2001); Southeast Asia EFE Correspondent (Hong Kong, 1990-1996). Miren has written for, e.g., El Mundo, El País, The Nation, Wall Street Journal, UPI and Transparency International. She is writing her PhD on data activism at the University of Deusto.

Vladan Joler is an Associate Professor and Chair of the New Media Department at the University of Novi Sad, Serbia, and the Director of SHARE Foundation and SHARE Labs - Investigative data reporting lab. In the past few years SHARE Lab focused on the independent investigation of invisible infrastructures, black boxes that mediate our interactions, our deepest personal communications and our behaviour and activities. The goal was to explore, understand and visualise different aspects of power, hidden behind the walls of the communication infrastructure, hardware and algorithms. Each investigation was a blend of different methodologies, mostly based on analysis of independently collected data, visualisation of large data sets, combined with the principles of investigative journalism and media theory. Our research includes: Inside Facebook Algorithmic Factory, Hacking Team metadata investigation, Mapping of online trackers, Mobile phone permissions analysis, Mapping surveillance architecture.

Geert Lovink is a media theorist, internet critic and author of *Dark Fiber* (2002), *Zero Comments* (2007), *Networks Without a Cause* (2012) and *Social Media Abyss* (2016). Since 2004 he is a researcher in the Faculty of Digital Media and Creative Industries at the Amsterdam University of Applied Sciences (HvA) where he is the founder of the Institute of Network Cultures. His centre recently organized conferences, publications and research networks such as Video Vortex (the politics and aesthetics of online video), Unlike Us (alternatives in social media), Critical Point of View (Wikipedia), Society of the Query (the culture of search), MoneyLab (internet-based revenue models in the arts) and a project on the future of art criticism. From 2004-2013 he was also Associate Professor of new media at the Department of Media Studies of the University of Amsterdam. Since 2009 he is Professor at the European Graduate School (Saas-Fee/Malta) where he supervises PhD students.

Alison Powell is Assistant Professor in Media and Communications at the London School of Economics where she leads LSE Data and Society, including the MSc in Media and Communications (Data & Society). Her research examines the ways in which value decisions are negotiated within the design of new ICTs. She is writing a book on data citizenships and 'sensing citizenships', and working on several funded projects related to citizenship, cities, data and ethics, as well as a history of 'everyday data citizenship'. Along with Nick Couldry, she recently published the article 'Big Data From the Bottom Up' in *Big Data and Society*, along with several other publications discussing information policy, activism, and open source culture. She is regularly invited to deliver lectures on the social and political consequences of the Internet of Things and Smart Cities projects. She completed her PhD at Concordia University in Montreal and her postdoctoral study at the Oxford Internet Institute.

Dr. Melanie Rieback is the CEO/Co-founder of Radically Open Security, the world's first non-profit computer security consultancy company. Prior to this, she was Assistant Professor of Computer Science at the Free University of Amsterdam, performing RFID security research (RFID Virus and RFID Guardian) that attracted worldwide press coverage, and won several awards (VU Mediakomeet, ISOC

Award, NWO I/O award, IEEE Percom Best Paper, USENIX Lisa Best Paper). Melanie worked as a Senior Engineering Manager on XenClient at Citrix, where she led the Vancouver office. She was also the head researcher in the CSIRT at ING Bank, where she set up their Analysis Lab and spearheaded the ING Core Threat Intelligence Project. For fun, she co-founded the Dutch Girl Geek Dinner in 2008. Melanie was named 2010 ICT Professional of the Year (Finalist) by WomeninIT, one of the 400 most successful women in the Netherlands by Viva Magazine (Viva400) in 2010, and one of the fifty most inspiring women in tech (Inspiring Fifty Netherlands) in 2016.

Richard Rogers, PhD, is University Professor in New Media & Digital Culture and Department Chair of Media Studies at the University of Amsterdam. He is Director of the Govcom.org Foundation, the group responsible for the Issue Crawler and other info-political tools, and the Digital Methods Initiative, dedicated to studying natively digital data and methods for Internet research. Rogers is the author of *Information Politics on the Web* (MIT Press, 2004), awarded the best book of the year by the American Society of Information Science & Technology. His recent book, *Digital Methods*, published by MIT Press (2013), won the Outstanding Book Award from the International Communication Association. Rogers is a three-time Ford Fellow and has received research grants from the Soros Foundation, Open Society Institute, MacArthur Foundation and Gates Foundation.

Denis Roio, AKA **Jaromil** (jaromil.dyne.org), is a researcher in philosophy of technology and a software artisan. His creations are recommended by the Free Software Foundation and redistributed worldwide. He is an active contributor to media theory discourses. Since 2000, Jaromil dedicates his efforts to build dyne.org, a non-profit software house gathering a growing number of artisans and socially engaged developers. Among dyne.org productions is software as FreeJ, MuSE, HasciiCam, Tomb, Freiør video plugins and Dyne:bolic, the 100% free GNU/Linux distribution for multimedia. Jaromil received the Vilém Flusser Award at Transmediale (Berlin, 2009) while leading for 6 years the R&D department of the Netherlands Media Art Institute (Montevideo/TBA). He is included in the 'Purpose Economy' list of top 100 social entrepreneurs in EU (2014) and the '40 under 40' European young leaders program (2012).

Tijmen Schep is a technology critic and privacy designer. He wrote the book *Design my Privacy* which will be available in English in October 2016. He co-founded SETUP, a Dutch non-profit that explains data-issues to a wider audience using funny media campaigns. They have scraped together a database of all Dutch people from public online sources, and are now exploring scenarios combining the reputation economy and the internet of things.

Linnett Taylor is Assistant Professor of Data Ethics, Law and Policy at the Tilburg Institute for Law, Technology and Society (TILT), where she researches the interface between big data, rights and democratic representation worldwide. She was previously a Marie Curie fellow in the UvA International Development Studies department, where she researched the emergence of ethical frameworks around the use of big data in development policy. She conducted postdoctoral research at the Oxford Internet Institute on big data in social science, and holds a PhD in Development Studies from the Institute of Development Studies, UK. She blogs at linnettaylor.wordpress.com.

Summary of Day 1

Program

Thursday, September 15

University Theatre, Nieuwe Doelenstraat 16

10.00–10.30 Welcome by Stefania Milan, DATACTIVE Principal Investigator

10.30–11.30 Keynote 1: **Sandra Braman** (Texas A&M). Moderator: Kersti R. Wissenbach

11.30–12.30 Keynote 2: **Alison Powell** (London School of Economics). Moderator: Mahsa Alimardani

12.30–14.00 Lunch Break

14.00–15.30 Roundtable: **Promises and Perils of Data Activism** featuring:

- **Miren Gutiérrez** (Universidad de Deusto)
- **Hisham al-Miraat** (Digital Rights Morocco)
- **Linnet Taylor** (Tilburg University)
- **Lonneke van der Velden** (DATACTIVE)

Moderated by **Bodó Balázs** (University of Amsterdam)

15.30–16.00 Coffee Break

16.00–17.00 **Geert Lovink** (Institute of Network Cultures) in conversation with **Denis Roio** aka **Jaromil** (Dyne.org)

17.00–17.15 Closing & Wrap-up

Follows: 17.30–18.30 **Individual project presentations by DATACTIVE researchers**. Parallel sessions (invitation only) at Oudemanhuispoort 4-6

19.30 **DATACTIVE dinner** for invited speakers & the DATACTIVE team at *Restaurant DenC, Kerkstraat 377, 1017 HW Amsterdam*

Sandra Braman: *Data Activism amid Opening Fields*

Braman focused on how the relations between law, state and society currently experience important transformations as a result of the widespread use of big data and related analytical tools. Her talk highlighted how the theoretical reflection upon this process is gaining momentum, due to the increasing need among decision-makers to make sense of change, as well as how advances in computation have opened up new methodological possibilities and prompted a novel appreciation for notions such as chaos, non-linearity and indeterminacy. Data activism, she claimed, is not completely new: for example, data (in the form of censuses, investigative journalism, research reports, etc.) have often been mobilized for political purposes. The novelty, however, is in the ability of the new data activism practices to foster systemic transformations.

According to Braman, it is possible to identify four 'opening fields' associated with data activism. The first of such fields concerns *the species*, since informational technologies multiply the capacities to imagine alternative futures. As the human merges with the technological, individuals relate differently to each other and their environment. Thus, data activism has species implications in promoting self-reflexive ontogenesis and accelerating the transition to the post-human. A second 'opening field' is that of *the social*: computational capacities accelerate the growth of social science knowledge, which can in turn be of use for activists. Therefore, the relation between the non-human and the social is evolving, posing issues related to, e.g., post-human laws and the legal status of technologies. *The political*, the third 'opening field', is affected as we enter a post-truth world. Data activists join debates and practices around data, make diverse publics visible, and contribute to the building of citizenship identities. A good example of these transformations at the political level is the emergence of tactical memory, one that is politically useful. Finally, at a discursive level, 'big data' has contributed to the 'blurring of genres' and the destiny of *facticity*, since how data activists treat information influences the future of genres and the construction of facts.

For Braman, the data activist can assume a variety of roles within this process of change: *sensors*, as s/he witnesses, learns and leaks information; *router*, which implies a reflexivity on the formation of communities and processes of moderation, curation or regulation; *server*, as holder of memory; *network provider*, which entails a reflection on access issues; *peering and representation*, requiring an emphasis on methods and a concern to ask the right questions. Therefore, data activists can instigate, channel, discuss and build the communities/publics that can effectively wield political change, which will also affect the future of the species, the construction of facts, the relation between structure and agency, and the nature of governance.

Alison Powell: *Data Citizenships: Protocol and Disruption*

Powell's talk centred around the idea of the construction of information infrastructure as a materialisation of social struggle. Powell analysed the ideals of the smart city, positing that their incorporation of transparency is coupled to notions of efficiency and optimization. She set up a paradigm for where and how data activism can intervene, arguing that *data citizenship* is constructed through discursive frames and material relationships in relation to how data is collected, calculated and curated. She called these protocols for

mediation *protocols for data citizenship*, and suggested that they operate at different layers and control different aspects of interactions, simultaneously enabling and constraining them. This means that while these protocols allow power, there are also instances in which the network can be disrupted and subverted.

One of the main questions addressed by Powell was when and how does data activism get defined as good citizenships. She provided a number of examples of data activism aligned with good or bad citizenship, such as the Russian hacker leaks—framed as a ‘bad’ form of citizenship which undermines other people's rights, and the Smart citizen kit, framed as a ‘good’ instance. Powell concluded by asking what potential ways there are to move beyond these good and bad frames, pointing to further needed examinations of ‘bad data citizenships’, understanding the motivations and repertoires of the stactivism movement, and the use in research of experimental methods such as ‘data walks’, to gain new perspectives on data infrastructures.

Roundtable: *Promises and Perils of Data Activism*

Participants: Miren Gutiérrez (Universidad de Deusto), Hisham al-Miraat (Digital Rights Morocco), Linnet Taylor (Tilburg University), Lonneke van der Velden (DATACTIVE). Moderated by Bodo Balázs (University of Amsterdam).

The roundtable featured four panellists providing both activist and observer perspectives on data activism. Miren Gutiérrez, who considers herself a data activist, spoke about pro-active activism as a theoretical frame, illustrating how people are empowered by the use of data for social infrastructure. Her remarks centred on a project to track illegal fishing in South Africa (odi.org/western-africa-missing-fish). Gutiérrez analysed the objectives of the initiative, specifically looking into how activism shifts when data maps—produced with data obtained through leaks and appropriation—are put at the centre of activist campaigns. Hisham al-Miraat provided a first-hand account of his experience as an activist working with data on a political level, specifically around the time of the Arab Springs. Linnet Taylor explored issues of data inequality, explaining that her interest lies in how data for social good seems to imply a duty to be open. Taylor argued that the time has come to add to the social contract the ‘right to be invisible’ to the government, with privacy framed as a form of social justice. Her intervention asked what kind of activism is necessary for this to happen, positing that not enough research has been done at the transnational level to conceptualize it. Finally, Lonneke van der Velden spoke about ‘big data critiques’, reflecting upon how critiques can count as big data activism. Referring to pro-active data activism, van der Velden explored the concerns by data activists and data activism researchers alike about the production of evidence and proof, addressing the question of ‘how does data become trustworthy?’ Citing the example of the ICWatch project (icwatch.wikileaks.org), van der Velden also brought up the ethical dilemmas of data activism (e.g., the possibility that activists become themselves profilers when trying to bring transparency to surveillance and data collection). Van der Velden referred to the fact that in the ICWatch case, the activist effort against the surveillance state resulted in the creation of a database that collects and exposes sensitive and/or inaccurate data about individuals.

Dennis Rojo AKA Jaromil (Dyne.org) vs. Geert Lovink (Institute of Network Cultures) on the past, present and future of Bitcoin and the Blockchain

The last session of **Contentious Data** day 1 consisted of a conversation between media theorist Geert Lovink (Amsterdam University of Applied Sciences) and hacker/artist Jaromil (Dyne.org), around the promises and critiques of Bitcoin and Blockchain technology. Lovink started by stating that, although Blockchain technology has seen a slow adoption from traditional nongovernmental organizations, this panorama will surely change, given that for the past decade we have moved towards a new definition of money and value creation. In turn, Jaromil added that these technologies are pushing the frontiers of media theory, consequently situating adopters in a better position to cope with change than traditional market actors. Jaromil characterised the Occupy movement as the most important point of rupture allowing the emergence of alternative mechanisms such as Blockchain, since it was then when people meeting face to face on the streets realised about the existence of an abundance of trust, very well exemplified by the collective actions they undertook. This rupture is important to understand the questioning of banks as necessary actors imbued with trust.

The conversation then switched to the evolution of the Bitcoin project. Lovink stated that Bitcoin has become a right-wing, techno-libertarian project that has lost its progressive dimension. According to Jaromil, the narrative has been reprogrammed because it attracted the interests of the elites, who pushed a liberating project in nature into the financial industry, causing the segmentation of the project in three streams. Luckily, the decentralised nature of Blockchain technology has endowed the community with a high level of resilience, although there is still a considerable degree of confrontation in relation to the code and the legal dimension of the project.

Approaching the end of their dialogue, Lovink and Jaromil revisited the topic of trust, a core subject for the Blockchain technology, which strongly affects its adoption by different types of actors. Lovink drew attention over the almost perfect trustability of Blockchain, while Jaromil highlighted the high level of uncertainty of the associated risks, given the emergent nature of the technology. To conclude, Jaromil also stressed that what people really like about Bitcoin is the 'blank page' that it has created, one that competing organizations and interests can fill in. In turn, Lovink highlighted the need to keep open the debate around these new technologies and its implications for society.

Summary of Day 2

Program

Friday September 16

E-lab, Room 0.16, Department of Media Studies, Turfdraagsterpad 9

9.30-9.45: Registration and welcome

9:45-10.30: Introduction by **Stefania Milan**, DATACTIVE Principal Investigator

10.30-12.15: *Reactive data activism*

- **Seda Gürses** (Princeton University)
- **Melanie Rieback** (Radically Open Security)
- **Tijmen Schep** (SETUP)

Moderator: **Becky Kazansky** (DATACTIVE)

12:15-13.45: lunch

13.45-15.30 *Proactive data activism*

- **Vladan Joler** (Share Labs)
- **Emmanuel Didier** (CNRS/University of California, Los Angeles)
- **Jennifer Gabrys** (Goldsmiths, University of London)

Moderator: **Kersti R. Wissenbach** (DATACTIVE)

15.30-16.00 coffee break

16.00-17.45: *Software tools for research*

- **Richard Rogers** (University of Amsterdam)
- **Paul Dourish** (University of California, Irvine)
- **David Berry** (University of Sussex)

Moderator: **Davide Beraldo** (DATACTIVE)

17.45-18.30 Closing & Wrap-up

Notes: Due to conflicting schedules, Prof. Berry's talk was moved to the morning, and his spot on panel 3 taken by Denis Roio.

David Berry on tactical infrastructure

Day two of **Contentious Data** was opened by **David Berry** who focused his presentation on the notion of 'tactical infrastructure', anticipating some insights from his upcoming book, *Reassembling the University: The Idea of a University in the Digital Age*. Berry highlighted how infrastructures are becoming a key object of scholarly attention, with growing awareness of their importance as a condition of possibility for forms of knowledge and acting-together. Through the concept of 'tactical infrastructure', Berry stressed the importance of discussing counter-infrastructure and the alternative modes of knowing, thinking and acting that they enable.

From Berry's perspective, although infrastructures are mainly physical and organizational facilities, they can also be thought in terms of social and economic structures. They are pre-socialized technologies, not in the sense that they are not social, but in that they have reached quasi-teleological status, as they are ready for use. Since infrastructure became institutions, it is interesting to focus on how tactical infrastructure can become a vector of changing or replacing institutions. David Berry's upcoming book specifically presents a critical case study for the reconceptualization of the traditional notion of the university, as re-mediated through digital infrastructures.

Panel I: *Reactive data activism*

Participants: **Seda Gürses** (Princeton University), **Melanie Rieback** (Radically Open Security), **Tijmen Schep** (SETUP). Moderated by **Becky Kazansky** (DATACTIVE).

Panel I addressed the first research question of the DATACTIVE project: how do citizens respond to massive data collection processes? The panel brought together four academics and activists working around privacy, digital security, and surveillance, to discuss the concept of 're-active activism'. **Seda Gürses** presented her co-authored article in *FibreCulture Journal*, 'Let's First Get Things Done! On Division of Labour and Techno-political Practices of Delegation in Times of Crisis', which explores the relationships of delegation between social justice activists and technology activists, and how gaps between activist cultures can result in a higher valuation of tech activists' technical knowledge over others. Gürses discussed her ideas on how to tackle this asymmetry, for example by reframing digital security as a process of negotiation rather than a script that must be simply followed.

Melanie Rieback spoke about the challenges of creating a sustainable, self-organising vehicle for change in the realm of information security. Rieback, founder of *Radically Open security*, explained why she felt the need to start her non-profit organisation, citing wide-spread dissatisfaction with the profit-driven information security industry at the expense of hackers' ideals, well exemplified by the sponsoring of hacker events by unethical information security companies. In light of ethical and moral dilemmas such as this, Rieback posed the question if there are ways to decentralise control away from such companies, since their lack of interest to educate users on security creates an artificial dependency on their services.

Tijmen Schep discussed the work of his organisation SETUP, whose goal is making academic ideas and understandings of the world more accessible to wider

audiences, particularly in the subjects of surveillance, coveillance, sousveillance. Schep cited the influence of satirical comedies such as *The Daily Show* on 'the Setup method', which aims to educate the public on data and privacy issues through 'critically hilarious' campaigns. One such campaign scraped the birth data of all Dutch citizens in order to set up a fake birthday gift service. Schep noted the importance for his organisation to 'be attractive to the media', make good-looking presentations, and actively reach out popular media like television.

Panel II: *Proactive data activism*

Participants: **Vladan Joler** (Share Labs), **Emmanuel Didier** (CNRS/UCLA), **Jennifer Gabrys** (Goldsmiths, University of London). Moderated by **Kersti R. Wissenbach** (DATACTIVE).

Panel II addressed the second research question of the DATACTIVE project: how do citizens use and appropriate existing data sets to foster socio-political change? **Vladan Joler** spoke of the work of Share Labs as an effort to understand the networks that surround us, for example, by mapping data flows and data tracking across the local telecommunications infrastructure of Serbia and internationally, exposing the extent of data tracking through mundane interactions. The experience of presenting the resulting visuals lead Joler to the conclusion that part of his job is... to scare people. Joler also spoke about Share Labs' experience in processing the leaked Hacking Team emails, which somewhat turned them into a sort of Do-It-Yourself National Security Agency.

Emanuel Didier focused his presentation on the statactivism movement, drawing on examples such as Bourdieu's critique of public education in France in the 1970s, the human development index (an alternative GDP), the work of the CGT union and the alternative price index, and Hans Haake's questionnaire about the public. Didier characterised statactivists as reformists who 're-instantiate' parts of reality and criticize it by challenging institutionalised categories and recalculating 'official' numbers in order to offer alternative political interpretations of statistically relevant data.

Finally, **Jennifer Gabrys** discussed her Citizen Sense project, which explores how environmental sensing technology could be used for citizen empowerment. Gabrys pointed to the Air Quality Egg as an example of low-cost hardware that allows users to gather air quality data. Gabrys used these devices to track air fracking in North-Western Pennsylvania (US). The project provided an alternative solution to the lack of data (and the lack of incentives for the government to provide any) suffered by a community concerned with water and air quality. The data gathered through the Air Quality Eggs was collected, analysed and turned into data-stories that could be used to create new 'lines of accountability' in order to advocate with scientists and officials on behalf of the community.

Panel III: *Software and Methods for Research on Data Activism*

Participants: **Richard Rogers** (University of Amsterdam), **Paul Dourish** (University of California Irvine), **Denis Rojo AKA Jaromil** (Dyne.org) Moderated by **Davide Beraldo** (DATACTIVE).

The goal of Panel III was to collect insights on existing software projects that could fit the study of data activism, as well as to contribute to the reflection on how digital methods can sustain the investigation of data activism as a research object.

Richard Rogers explored digital methods as intervention, focusing on the possibility of repurposing digital methods into forms of interventions that exploit data and analytical procedures to make more effective existing initiatives promoting social causes. His talk dived into two case studies from the 'data sprints' organized by the Digital Methods Initiative in Hong Kong. The first case looked at music platforms and the problem of concentration, to find out if an algorithm could help 'democratizing' online music markets. Aivvy, a Hong Kong-based start-up, has developed a recommender system in order to avoid the logic of main online music platforms (such as Spotify or iTunes), which tend to favour mainstream artists in the display of music suggestion. Aivvy claims that their algorithm would boost small artist, contributing to reduce the concentration of music consumption and to give visibility to less popular artists. The second case study centred on SACOM, a student organization based in Hong Kong whose mission is to go undercover in textile and electronic factories in order to document working conditions. SACOM was interested in developing new ways of 'issuefying' working conditions in Chinese factories, for example, through the creation of animated videos and games. Through the analysis of databases and labour organisation's websites, this intervention by the DMI mapped networks of issues and organisations, arriving at the conclusion that SACOM was rather marginal within them. As a result, the project attempted to grasp what social media format and issues produce the highest engagement within the field of labour advocacy.

Paul Dourish explored data and (ethno)methods. A frequently asked question in the field of machine learning is which machine-learning technique to apply? One option would be to run all the techniques available in parallel, and just take the one that gives the best answer first. Although that would not have been a serious answer before, today's computational capacity makes it a feasible alternative. According to Dourish, this example shows how the nature of computational methods involves rethinking what things are considered stupid and why, which also leads us to question whose methods are we employing. One of the main lessons learned by ethnomethodology is that the best methods of analysis are precisely those used by the members of a community to make sense of themselves, their situation, actions and their social setting. Having this in mind, Dourish stated that he wants to look at data stories and projects that are oriented towards the question of what kind of data and methods people are engaged in. As an example, Dourish referred to 'Datascape', a project by two PhD students who designed and built a system to give community groups ways of producing and sharing spatially situated data narratives. The students built and installed GPS sensors in cars and sensor-based screens, so that they could drive around and see on their screens the geo-referenced data of the area they were looking at, super imposed on the landscape.

Denis Rojo (aka Jaromil) presented Dows (dowse.equipment), a product developed by the think-and-do think Dyne.org, aimed at allowing people to gain awareness and control over data flows in the context of the expanding Internet of Things. A key difference between the World Wide Web and the Internet of Things, indeed, is that in the former the decision to connect and disconnect is largely in the hands of the users, whereas in the latter multiple devices interact with each

other, often without the consent or the awareness of the user. Dowse is a device capable of making visible and manageable data flows that would otherwise be out of the control of human subjects: it provides users the capability to monitor and disconnect devices within a local sphere (such as a household), and thus can be understood as a 'privacy hub for the Internet of Things'. The Dowse project is a peculiar case of data activism, in so far as it operates with the 'lower' network protocols (those closer to the physical layer), in order to allow the re-appropriation of control over data flows.

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Credits. Report compiled by Davide Beraldo and Becky Kazansky, with assistance from Lonneke van der Velden and Guillén Torres. See data-activism.net/team. Poster design and visual identity by Federica Bardelli & Carlo De Gaetano (Density Design, Milano). The **Contentious Data** brand is an idea of Davide Beraldo (DATACTIVE).
