CULTURE 4D
Digitisation, Data, Disruptions, Diversity

3rd Council of Europe
Platform Exchange on
Culture and Digitisation

Tallinn, 29-30 September 2016
Dear participants,

Culture is a web of meanings that people have spun themselves, but in which they have also got stuck, as the world famous anthropologist Clifford Geertz has said. But what happens when culture’s broader web of meanings and the WWW - the network of networks - become overlapped and intertwined? Who weaves this new web of culture? Is it the people or is it instead the various large institutions, driven by their specific agendas? Are we stuck with its existing design, do we want to start anew and is this even possible? And what does it mean for the further evolution of our meaning-systems if the core economic product of this new web is the data about its weavers? These are the questions this conference asks.

As co-organisers we are grateful to the Council of Europe and the Estonian Ministry of Culture for enabling us to work with them on event.

We hope this Platform Exchange will contribute fruitfully to the further work of the Council of Europe in tackling these important issues.

Thank you for joining us for what promises to be two truly inspiring days!

Indrek Ibrus,
Tallinn University Centre of Excellence in Media Innovation and Digital Culture (MEDIT)
Head of the Organising Committee
A Conference Rationale

“Culture 4D: Digitisation, Data, Disruptions, Diversity” is the third Platform of the Council of Europe Platform Exchanges on the Impact of Digitisation and Culture, and is hosted by Tallinn University and the Estonian Ministry of Culture within the framework of the Estonian Chairmanship of the Council of Europe’s Committee of Ministers.

The annual Platform Exchange on the Impact of Digitisation on Culture was set up by the Council of Europe following a request in 2013 by European Ministers of Culture after having identified the need to discuss the challenges and opportunities related to the digitisation of culture. It is aimed at policy makers, cultural and media practitioners, professional associations, researchers, civil society and international bodies. Two Platform Exchanges have been held to date: “Creating an enabling environment for digital culture and for empowering citizens” in 2013 in Baku, Azerbaijan and “Smart creativity, smart democracy” in 2014 in Linz, Austria. The Platform Exchanges are part of the Council of Europe “Internet Governance Strategy” which aims at ensuring public policy for the Internet is people-centred in order to build democracy online, to protect Internet users and to ensure respect and protection for human rights online.

The Tallinn Platform Exchange is entitled “Culture 4D: Digitisation, Data, Disruptions, Diversity”. Its rationale is based on an understanding that the new digital and networked infrastructures should be used to reinforce access to and participation in an open culture, thereby strengthening democracy. The conference will focus on some of the opportunities and challenges that are emerging in relation to digitisation of culture and management of cultural data.

Day 1 of the conference is titled “Small Europe, Big Data” and focuses on issues raised by “big data” management in the cultural field vis-à-vis the common good. Accompanied and complemented by concurrent trends like automation and cloud computing, big data may lead to the concentration of data processing in the hands of a few global corporations. Day 1 panels will, therefore, look into questions such as public-private co-operation in cultural digitisation projects, power and control over cultural data, how data management in the global marketplace may affect reproduction of cultural memory and cultural diversity in Europe.

Day 2 of the conference will focus on the means to empowerment and participation in the digital era in order to equip everyone with the means to benefit from the digital technology. The Day 2 panels will consider ways for overcoming cultural barriers and closing digital gaps within a global society, as well as between different social groups with a view to enhancing cultural access, participation, production, acquisition and intercultural relations. The core question explored is how can we in Europe contribute to societal inclusion through digital culture?
Thursday, September 29th

**Moderator:** Indrek Treufeldt

**9:00–10:00 Registration of participants**

**10:00** Opening address by Indrek Saar, Estonian Minister of Culture  
Opening remarks by Snežana Samardžić-Marković, Director General for Democracy, Council of Europe and Katrin Niglas, Vice-Rector of Tallinn University

**10:30 Session 1: Small Europe - Big Data: Towards the Common Good**

**Keynote speaker:** Philip Schlesinger, University of Glasgow, Scotland, UK.

**11:15 Panel 1** on opportunities and challenges of cultural big data for the common good
- Alison Powell, London School of Economics and Political Science, UK
- Jean-Pierre Evain, European Broadcasting Union
- Cornelius Puschmann, Humboldt Institute for Internet and Society (HIIG), Berlin, Germany
- Maarten Brinkerink, Netherlands Institute for Sound and Vision, Hilversum, Netherlands

**12:30 Buffet-Lunch at conference site**

**13:30 Panel 2** on the effects of digitisation, data markets and data curation on cultural memory and cultural diversity, and on alternative cultural memories and the cultures of Europe’s different minorities

**Moderator:** Indrek Ibrus, Tallinn University
- Andrew Hoskins, University of Glasgow, Scotland, UK
- Peter Stockinger, INALCO, Paris, France
- Marju Lauristin, MEP, University of Tartu, Estonia
- Monika Hagedorn-Saufe, State Museums in Berlin, Germany

**14:45 Coffee break**

**15:10 Panel 3** on public (cultural institutions) – private (online & ICT industries) co-operation

**Moderator:** Raivo Ruusalepp, Estonian National Library/Tallinn University
- Zuzanna Stańska, Moiseum, Warsaw, Poland
- Vincent Bonnet, European Bureau of Library Information and Documentation Associations (EBLIDA)
- Ott Jalakas, Lingvist, Tallinn, Estonia
- Aleksi Rossi, Head of Development at Yle (Finnish Broadcasting Company)

**16:30 Discussion:** Small Europe – Big data: Disruptions and Diversity  
Multi-stakeholder discussion, companies, NGOs, activists, youth groups, government representatives included.

**18:00** End of Session and Day 1

**19:30 Conference reception at Tallinn Seaplane Harbour**
Friday, September 30th

**Moderator:** Indrek Treufeldt

**9:00 Session 2:** Means to empowerment and cultural participation – Enhancing the Internet of Citizens

**9:10 Keynote speaker:** Divina Frau-Meigs, Professor of Media Sociology, Sorbonne Nouvelle University

**9:40 Panel 4** on the empowerment of citizens, with emphasis on the participatory capabilities of different age groups (minors, elderly)

**Moderator:** Airi-Alina Allaste, Tallinn University

- Andra Siibak, University of Tartu, Estonia
- Gabriel Brezoliu, Prisma European Network and Group of the European Youth for Change, Bucharest, Romania
- Korioun Khatchadourian, TUMO, Yerevan, Armenia

**10:40 Coffee break**

**11:10 Panel 5** on disruptions in cultural work and professional careers

- David Hesmondhalgh, Leeds University, UK
- Aphra Kerr, Maynooth University, Ireland
- Gerfried Stocker, Director Ars Electronica, Linz, Austria
- Eli Commins, French Ministry of Culture, France

**12:10 Buffet Lunch**

**13:00 Panel 6** on migration and diasporas, e-citizenship/E-Residency experience of Estonia

**Moderator:** Ave Lauren, European Migration Network, Estonia

- Myria Georgiou, London School of Economics and Political Science, UK
- Koen Leurs, Utrecht University, Netherlands
- Moritz Beber, Metacollect, Berlin, Germany
- Priit Alamäe, Nortal, Estonia

**14:15 Concluding discussion:** Digital Means to Empowerment and Inclusion – enhancing the Internet of Citizens

**14:45** Outlook on next steps and closing words

- Ülle Talihärm, Estonian Ministry of Culture
- Claudia Luciani, Director of Democratic Governance, Council of Europe

**15:00 End of conference.**

*NOTE: The Culture 4D conference is followed by an event run by the Cross Motion project. The small Cross Motion Conference on Friday, 30 September at 16.00 at Tallinn University will explore the current trends in cross-innovation in the fields of virtual reality, augmented reality, 360 degree filming and gamification.*
Culture 4D conference keynoters are:

**Philip Schlesinger** is a professor in Cultural Policy at the University of Glasgow and Academic Director of the Centre for Cultural Policy Research. He was previously Professor of Film & Media Studies at the University of Stirling from 1989-2006, and founding Director of Stirling Media Research Institute. He is presently Chair of the Scottish Advisory Committee of Ofcom (the UK’s communications regulator). His current research interests include: cultural creativity and government policy; media theory and media policy; the European public sphere and ethnography and representations of exile.

**Divina Frau-Meigs** is a professor of Media Sociology at the Université Sorbonne Nouvelle, France. She is a specialist in media and information technologies from a comparative perspective as well as a researcher in media uses and the practices of young people. She is currently working on issues of Internet governance, media regulation, cultural diversity and media literacy in a global perspective. She is an expert with UNESCO, the European Union, the Council of Europe and a variety of governmental agencies in France and in other countries worldwide.

Panelists

**Priit Alamäe** is a Founder & Chairman of the Management Board of Nortal. He founded the company in 2000 as a visionary 22-year-old. Under his lead, Nortal is today a multinational ICT and business consultancy dedicated to bringing about eTransformations in societies, government agencies and private companies across Europe, Middle East and Africa. President of Estonia has awarded Alamäe with The Order of the White Star and Ernst & Young named him Entrepreneur of the Year in 2011.

**Moritz Beber** is a founding member of metacollect which started at the refugee hackathon in October 2015 in Berlin. His key activities revolve around the assessment and implementation of the technical requirements of an open, well-structured data set that describes projects, their activities, and services. With metacollect he follows the vision of an open data service that – through its partner platforms – will allow initiatives in the refugee aid and integration space to simplify their online presence, to improve their reach, to better self-organize and exchange knowledge, and enable new innovative services to be built.

**Vincent Bonnet** is Director of the European Bureau of Library, Information and Documentation Associations (EBLIDA) since 2010, combining his passion for libraries with his interest in European affairs, copyright and access to information. Before starting work with EBLIDA he worked in France both as a trainer for a private company that serves libraries and as a civil servant in public libraries.

**Gabriel Brezoiu** is a European trainer and project manager specialised in the non-profit and youth fields. He has over 9 years of experience in youth projects focusing on digital, project management, communications, hate speech online and youth participation. He is a founding member of Group of the European Youth for Change, the initiator of “European Digital Youth Summit” and PRISMA European Network.
Maarten Brinkerink works as a Public Participation and Innovative Access Expert in the Netherlands Institute for Sound and Vision. He contributes to the strategic policy of Sound and Vision and strengthens the Dutch heritage sector with initiatives such as Open Culture Data. He is an expert on copyright, crowdsourcing and reuse of digital heritage. At Sound and Vision he has worked for their mass digitization project Images for the Future and in various international research projects.

Eli Commins is the coordinator of digital policies at the French Ministry of Culture, General Directorate of Artistic Creation (Direction Générale de la Création Artistique), where he oversees matters related to creation in a digital environment and helps to establish guidelines for cultural institutions in the fields of contemporary art, theater, dance and music. In a previous position, he was deputy director of La Panacée, Center for Contemporary Culture, in Montpellier, France.

Jean-Pierre Evain joined the European Broadcasting Union (EBU) in 1992 after several years spent in the R&D laboratories of France-Telecom (CCETT) and Deutsche Telekom (FTZ). He is in charge of EBU technical activities concerning content metadata and new production architectures. He is a member of the EBU Big Data Steering Board. He also represents EBU in many standard groups and industry forums like AES, ETSI, IPTC, MPEG, SMPTE, W3C, among several others.

Myria Georgiou teaches at the Dept of Media and Communications, London School of Economics and Political Science (LSE). Her research focuses on migration, diaspora, and the city, especially in examining the ways in which media shapes narratives of belonging among mobile and diverse populations. She is the author of Diaspora, identity and the media (Hampton Press, 2006) and Media and the city (Polity, 2013).

Monika Hagedorn-Saupe works at the Institut für Museumsforschung der Staatlichen Museen zu Berlin, Germany. She teaches museology at the University of Applied Science HTW-Berlin. She is also a board member of International World Museum Community’s (ICOM) European branch and chairs ICOM’s International Committee for Documentation. Further, she is a board member of the Europeana Foundation and Vice President of the MICHAEL Culture Association.

David Hesmondhalgh is one of the leading scholars in the world in the area of cultural industries. He is Professor of Media, Music and Culture in at the University of Leeds. He is the author of Culture, Economy and Politics: The Case of New Labour (Palgrave, 2015, co-written with Oakley, Lee and Nisbett); Why Music Matters (Wiley-Blackwell, 2013), Creative Labour: Media Work in Three Cultural Industries (Routledge, 2011, co-written with Sarah Baker), and The Cultural Industries (Sage, 2012; 3rd edition).

Andrew Hoskins is Interdisciplinary Research Professor in the College of Social Sciences, University of Glasgow. He is founding Editor-in-Chief of the Sage Journal of Memory Studies and founding Co-Editor of the Palgrave Macmillan Book Series Memory Studies. His latest book (with John Tulloch) is Risk and Hyperconnectivity: Media and Memories of Neoliberalism (Oxford University Press 2016) and he is currently editing Digital Memory Studies (Routledge 2017).
**Ott Jalakas** is an entrepreneur and co-founder at Lingvist, building the next-generation language-learning tool. The mission of Lingvist is to make language learning simpler, faster and more effective than it has ever been. Team Lingvist wants to see a world where multilingualism is the norm, and where anyone, regardless of their background or location, can become a fast learner by using the right technology.


**Korioun Khatchadourian** is a Manager at the Tumo Center for Creative Technologies (TUMO) - a new kind of after-school learning environment in digital media founded in 2011 in Yerevan, Armenia. He holds a dual Master’s degree in Management & Entrepreneurship and has over 8 years of experience within the non-profit and educational fields. Passionate about innovative pedagogy, he sees new technologies as key tools for shaping the future of education.

**Marju Lauristin** is one of the most well-known Estonian politicians and academics. She was one of the leaders of the Singing Revolution that ended with Estonia re-gaining its independence, has served as a minister of social affairs and is currently an MEP, representing the Estonian Social Democratic Party. At the European Parliament she was the rapporteur for the new data protection regulation. She is also well known a professor of communication studies in the University of Tartu.

**Koen Leurs** is Assistant Professor in Gender and Postcolonial Studies at Utrecht University. He is a critical internet researcher interested in media, migration, gender, diaspora and youth culture using mixed methods. He recently published *Digital Passages. Diaspora, gender & Youth cultural Intersections* (Amsterdam University Press, 2015). Currently he is principal investigator for the study ‘Young connected migrants. Comparing digital practices of young asylum seekers and expatriates in the Netherlands’.

**Claudia Luciani** is the Director of Democratic Governance in the Council of Europe Directorate General of Democracy. The work in this directorate focuses on the solidity of democratic institutions by ensuring an equal application of European standards across Council of Europe member States; the need to “manage” diversity in societies in an harmonious manner fully respectful of fundamental rights and freedoms; and the wider implications of democratic principles and practices in relation to democratic transition processes outside Europe.

**Cornelius Puschmann** is a project leader and senior researcher at the Alexander von Humboldt Institute for Internet and Society, and in 2015/2016 faculty associate at the Berkman Center for Internet and Society at Harvard University. He studies digital media and communication using a combination of traditional and computational methods. His current research investigates online hate speech and the use of social media by populist movements.
Aleksi Rossi is head of Application Programming Interface (API) services at Yle, the Finnish public broadcaster. He has been one of the leaders of the open data movement in Finland and has also been behind Yle opening its online portal’s API for partners and third party developers who can use the broadcaster’s data for further innovation.

Snežana Samardžić-Marković is Director General of Democracy at the Council of Europe, in charge of the Organisation’s work to promote democratic innovation, governance, participation and diversity. Her responsibilities include the policy areas of education and youth, local democracy, cultural policies, election assistance, the protection of human dignity, gender equality, children’s rights, and the rights of minorities, societal defences against discrimination, democratic citizenship, social cohesion, intercultural dialogue and democratic responses to crisis situations.

Andra Siibak is a professor of media studies at the University of Tartu, Estonia. Her main field of re-search is the opportunities and risks surrounding young people’s internet and social media usage practices and privacy. In the last five years she has published more than 40 peer reviewed papers on these topics. In 2015 she was awarded the Young Scientist Award by the President of Estonia.

Gerfried Stocker is the artistic director of Ars Electronica - the seminal digital arts festival in Europe. In 1995-96, he headed the crew of artists and technicians that developed the Ars Electronica Center’s pioneering new exhibition strategies and set up its in-house R&D department, the Ars Electronica Futurelab. He has been responsible for conceiving and implementing the series of international exhibitions that Ars Electronica has staged since 2004, and for the planning and repositioning of the new, expanded Ars Electronica Center.

Peter Stockinger is a professor at the Institut National des Langues et Civilisations Orientales (INALCO) in Paris, France, where he is Head of the Intercultural Communication School. He is also member of the research lab PLIDAM. His principal research topics include digital media and culture, semiotics, cross-cultural communication and organisational communication, digital audiovisual archives, video corpus description, indexing and repurposing; knowledge modeling and organisation, ontology development.

Zuzanna Stańska: art historian, founder at Moiseum, tech consultancy helping museums and cultural institutions to reach their audiences with new tools. Founder at DailyArt, a website and mobile app on art history. Fascinated about using new technologies in museums, she was awarded Young Creative Entrepreneur Award in the Culture category (British Council), mentioned in the “New Europe Top 100 Challengers” list drawn up by Visegard Fund, Google, Financial Times and Res Publika.

Ülle Talihärm works as adviser for libraries in the Ministry of Culture. She contributes as member of the Digital Cultural Heritage Council to the strategic policy of digital cultural heritage on digitisation, preservation and cross-areas cooperation activities in Estonia. She is expert on legal deposit copy. She has been leader in working out new Legal Deposit Copy Act which will be in force from 01.01.2017. Passionate about collecting and preserving digitally born media which is basis for innovation in the public services.
Moderators

Airi-Alina Allaste is professor of sociology in Tallinn University. Her research, publications and teaching concentrates mostly on youth studies. She has been national coordinator and working package leader for various international projects including MYPLACE (Memory, Youth, Political Legacy and Civic Engagement) and has recently edited 6 books/special issues including “In Search of… New Methodological Approaches to Youth Research. (2015, Cambridge Scholar Publishing, together with K.Tiidenberg).

Indrek Ibrus is an Associate professor at Tallinn University’s Baltic Film, Media, Arts and Communication School (BFM). He is also the head and senior researcher at TLU’s Center of Excellence in Media Innovation and Digital Culture (MEDIT). He has published extensively on media innovation, audiovisual media industries and regulation, mobile media, transmedia and cross-media production.

Ave Lauren is an Analyst for the European Migration Network (EMN). Ave finished her PhD in Economic Geography at University of Cambridge, where her research explored the rising socio-economic heterogeneity among new migrant communities in Silicon Valley and the San Francisco Bay Area and the role of companies in community-making and identity-formation processes of highly-skilled migrant groups.

Raivo Ruusalepp is head of development at the National Library of Estonia. He has a background in digital preservation, electronic records management and e-services. He has been part of designing most of Estonia’s national policies for digital cultural heritage and information governance. He is also teaching library and records technology subjects at Tallinn University.

Indrek Treufeldt is an award-winning Estonian TV journalist and filmmaker. In the early years of his career, Indrek worked as a spokesman for Estonia’s first president after restoration of independence, Lennart Meri, and later at the World Bank. Since 1996 he has had various roles in Estonian Public Television (with the latest as journalist and advisor on journalism). He holds a PhD from the University of Tartu.
From metadata to ‘big data’: Critical considerations on the emergent ‘digital memory’ Industries

Indrek Ibrus, PhD

Introduction

New large scale initiatives are emerging throughout Europe to digitise existing cultural resources, both tangible and intangible forms of cultural heritage. This will be a costly endeavour: for instance, the digitisation of European audiovisual heritage alone has been estimated at 5bn euros. The high costs are deemed worthwhile not only in terms of preserving the heritage, but also with regard to facilitating its new uses. In 2012 the EU Council suggested that the digitisation and online accessibility of Member States’ cultural material were essential to: I) enable access for all to culture and knowledge in the digital era; and II) ensure that digitised cultural material is available as an important resource for the European creative industries (Council of the European Union, 2012).

Making this resource available for repurposing is expected to contribute to economic growth and job creation in Europe and the achievement of the EU’s digital single market through the increasing availability of innovative online products and services. This has broadly been the plan. What I discuss in this paper are the related challenges, alternatives and implications for the public good in Europe.

Specifics of digital archives

Many researchers have distinguished between ‘traditional archives’ and network era archives. With traditional archives, everything collected and represented was selected by ‘experts’ according to some disciplined knowledge system. These experts thus managed the scope of society’s dialogues with society’s memory. This model was disrupted by the Internet, which facilitates self-organisation by consumers and their co-creation of archives and heritage content. Network era archives are all about experience of reception for audiences rather than an indication of official sanction. However, the early era of networked archives is associated with insecurities for the involved parties (users, archivists, content authors). The productivity of online archives (such as YouTube or Flickr) is uncertain since their content is organised by agents with varying agendas and the archived objects may thus not retain their original integrity. As a result, responses to any queries by users tend to be unpredictable (Hartley, 2012). This leads to controversy regarding one of the particular benefits of audio-visual heritage digitisation: the opportunities for contemporary societies to have more immediate and therefore more ‘open’ relationships with their heterogeneous pasts (i.e. interpretations of visual materials can be more free and less dependent of dominant narratives, Torlasco, 2013). It is thought that access to digitised archives could give rise to a penumbra of ‘new histories’ that could affect broader reflective dialogues on existing genealogies and on ‘digital historiography’. This has been the optimistic view (Ellis, 2012). In contrast, it is suggested (Baron, 2014) that amid the excess of accessible

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1 Niggemann, de Decker, & Lévy, 2011
2 Ernst, 2013, 2015; Hartley, 2012
3 Baron, 2014; Uricchio, 2009
documents and their ‘inappropriate’ uses, historical awareness might diminish. Baron suggests that such a risk is effectively a ‘natural effect’ of digital archives.

**Cultural memory in the digital era**

This relates to how the researchers of cultural memory in the era of networked culture talk about the evolution of their subject. Hoskins (2011), for instance, asks what are the prospects for the sharedness, stability and continuity of memory as it is increasingly connected with, newly ordered through and distributed across complex networks of digital media and technologies in our new memory ecology? He suggests that the digitally-enhanced paradoxes of flux and permanence, and immediacy and volume of access shape today’s memory. Thus he talks about ‘new memory’, since in the era of networks memory is always ‘new’, given its continually emergent state availed through the metaphors, media and technologies of the day (ibid.). Ernst (2004) has suggested that instead of concerning ourselves with ‘archival space’ it is time to start talking about ‘archival time’ – referring to the ‘dynamics of permanent data transfer’ between the different archives, databases, media, modalities as well as cultures – the flux of contemporary archives is constant and, effectively, global.

In this context Appadurai (2003) demonstrated the emergence of cultural memories for new virtual communities. He argues that the online archives do not present themselves as ‘accidental repositories of default communities (like the nation)’, but become deliberate sites for the production of anticipated memories by international communities.

**Sketching a political economy of culture digitisation and metadata**

While the described developments may appear to be historical forces too immense to be controlled, and while in aggregate they may be presented as complex in terms of effects, not just positive or negative, I would like to suggest a critical perspective scrutinising the techno-economic designs of the contemporary online archives, and their effects on how the cultural memories of contemporary media users may evolve. This is timely as there has been very little work within media and memory studies that takes a political economy approach to digital ‘cultural memory industries’4. Yet, it is important, I suggest, to study the ways users can connect to their externalised memory resources to understand the effects of networks and digital infrastructures on ways memories are mediated and shaped.

Specifically, I would like to bring to the table the issue of metadata. When a cultural object – be it a film, TV programme, painting, photo, museum artifact, archival document etc. – is digitised then what makes it contextualisable, and therefore also searchable and findable, is ‘metadata’ – indexes and tags of various kinds – data about data. While it was suggested above that the global interconnectivity between archives and media is already happening, there are still major incompatibilities, especially between public and private archives and service providers. As an example, regarding metadata standards for audiovisual heritage, we are still in the typical early era of standards fragmentation: new de facto standards and methods are emerging around the world and this challenges cross-border co-operation and the technical interoperability of heritage databases.

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4 Reading, 2014
Yet, interoperable and freely available metadata is essential for the emergence of innovative services of which those associated with education are deemed to be the most immediately valuable. Further, it is the good quality of metadata and its seamless transferability across media that could alleviate the risk of content in user-led archives potentially losing contact with its original context and references, as discussed above.

Yet, reducing the incompatibility of archives and services tends to be undermined by the varying institutional needs for the functions of heritage metadata. I have shown that technical standards evolve through dialogue and power struggles among institutions with vested interests (see also Foray, 1995; Ibrus, 2013a, 2013b). Regarding audiovisual metadata5, while librarians have been concerned about standardised access to descriptors; producers are interested in efficient asset management (IPR, access controls); online service providers (YouTube, Netflix, etc.) are developing proprietary recommendations systems to secure customer loyalty and newly created dedicated public databases (e.g. Europeana, EUScreen) are seeking public value in service interoperability. The ‘multilevelled’ (Ibrus, 2013b, 2015) dialogues among these institutions are influencing the standardisation of metadata creation.

Yet, the challenge lies in those dialogues being often asymmetrical – some parties having significantly more bargaining power than others. While, for instance, the World Wide Web Consortium (W3C), together with European Broadcasting Union (EBU), Europeana and others, has been standardising new open standards to be used for videos in the ‘semantic web’ the dominant commercial service providers – Netflix, Amazon, YouTube and others – have chosen not to participate in these efforts. Instead, they are developing their own standards, producing their own metadata, which they do not share freely, but monetise in ways they see fit. Yet, these services matter as they dominate the markets. They are big because it is on their platforms that people or institutions, including often public archives, have chosen to share their content, either their own memories or remixes of others, be they originally private or public properties.

Effects of the ‘sharing economy’ on media concentration

In this context it is appropriate to bring in the ‘sharing economy’ concept. While this concept is often used to celebrate a more even distribution of agency in the economy, including media markets, it is also linked to the growing concentration in the global internet service markets.

What is the reason for the latter? Among the main conditioning factors is the phenomenon known as positive network externalities or network effects. The theory of network effects stems from economic theory and claims that the value of a network depends on the number of its users6. Hence, due to network effects, the more members a platform has for sharing purposes, the more attractive it is for its users7. Hence, large, international platforms for sharing purposes benefit from network effects that no national platform could offer. The problem with network effects is that this ‘value pull’ often leads to concentration in specific markets. In the domain of media and culture, concentration is feared due to its potentially negative effects on cultural diversity or political pluralism. Therefore, while a public archive or a rights owner for film heritage may be tempted to publish their holdings on Netflix or YouTube, due to their global reach they will not be able to control (or in case

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5 Wactlar & Christel, 2002
6 David & Greenstein, 1990; Katz & Shapiro, 1986
7 Cusumano, 2011
of Netflix even know about) the terms under which their content is found and accessed. There is evidence, for instance, that when memory institutions use YouTube to share their content, the latter’s algorithms suggest to users only the most popular videos and make finding the less popular, but still highly valuable, videos often impossible or at least the search results unpredictable.¹⁸

This means that such platforms, their algorithms and indexing systems have a crucial role in influencing what cultural resources can be found, and thereafter used for cultural memory construction. This suggests that these platforms, their technical designs, the standards they use and the rationales behind the choices of different standards and technologies all function ideologically, becoming part of the cultural construction apparatus.

**Use of open metadata standards as a public policy objective**

In this context I would like to point to the certain potential of article 3.5 of the Council of Europe’s “Internet of Citizens” recommendation (2016). It argues for a new publicly available and sustainable digital space to be set up at European level, making use of existing European portals and platforms, to enable cultural resources and cultural knowledge to be legally shared and accessed without restriction of time and place. This digital space should provide, it is suggested, for a better global discoverability and accessibility of digital cultural resources and promote interaction, interoperability and collaboration among communities and between collections. It is also important, I would add, that this and other central platforms such as Europeana should continue to be as open and transparent as possible in terms of the standards, indexing techniques and technologies (including software and algorithms) they use – to encourage smaller European institutions to also choose open standards and to become aware of possible limitations to public value if they choose to co-operate extensively with proprietary and often less transparent service providers.

**Emergence of cultural ‘big data’**

In addition to presenting cultural content on networked platforms more effectively – so that it is well contextualised and easily findable and reusable – there is also another concept of increasing importance that has implications for digital culture as a public good. This is data on how cultural content has been used on these platforms. Any click we make, any ‘like’ or comment we add, any recommendation we make to others – all is being recorded and used for various purposes – either for further personalisation of the service or for ‘smart’ marketing of various kinds of external products or services to users. This is where the concept of ‘big data’ comes in.

In the area of culture, ‘big data’ usually refers to born digital information that is user-generated and collected by computers. While the communicational model of online ‘archives’ such as YouTube or Instagram is often conceptualised as ‘mass self-communication’ (for distinguishing it from the forms of mass communication) their operational model is to invite continual input of data by individuals. As Couldry and Powell (2014) posit, “the exemplary product of mass self-communication is data”. They explain that the economic model of mass media was structured around generating an audience whose attention could be sold to an advertiser. In the mass self-communication, on the other hand, model individuals are still part of an aggregate product, but instead of their attention on single messages, it is

¹⁸ Vonderau, 2015
their own individual acts of communication that comprise the ‘Big Data’ and drive value-extraction. In relation to this, Puschmann and Burgess (2014) argue that the historical evolution of ‘big data’ is marked by a shift toward ever greater commercialisation of data.

Yet, what is often perceived as a challenge on this road is the actual manageability of big data – its harvesting, its processing, its sales under conditions of its quick growth, its varying quality and problems with its contextualisation and, therefore, also with its adequate analysis and uses. Puschmann and Burgess argue that the ‘big data’ trope often evokes the image of conjuring forces too powerful to control or curb. The implicit challenge, therefore, is how to control big data in order to successfully turn it into a resource.

But this works both ways – the usage of data as an extractable and tradable resource is similarly a challenge for civil society in terms of understanding whether this trade and the data uses run counter to public interest – harming not only the privacy of users, but perhaps more importantly the actual freedom of choice for all kinds of political, social and cultural agents. We know very little of how our data is being used, how it is commercialised and what the related effects are on the designs of all the information delivery services and life-co-ordination platforms that we consume. That is, as the phenomenon is in rapid development, and as such a ‘moving target’, there is a lack of rules, conventions or regulations aimed at securing transparent business conduct to make sure this conduct does not harm the principal freedoms of contemporary civil societies. On this front an important step was the recently adopted EU data protection reform (rapporteur: Marju Lauristin, MEP, Estonia) that secured minimal protection for EU citizens including a right to be forgotten, “clear and affirmative consent” to the processing of private data by the person concerned and the obligation to explain the privacy policies in clear and understandable language.

Yet, more work is needed to make cultural big data trade more transparent and to develop best practice for the uses of big data in the service of cultural diversity, political pluralism, more effective and transparent knowledge exchange and for facilitating broader “reflexive modernisation”9, whereby risks of modern living are identified and solutions are co-invented. Dominant online service providers should not only become transparent regarding privacy terms and informing private individuals on the usage of their data but also with regard to informing society at large of the terms of their data trade and how this may affect the nature of the knowledge services provided to European citizens. Furthermore, good conduct for sharing the usage data between private and public institutions in the service of a more transparent and reflexive society – i.e. the ‘public good’ – should be developed and highlighted. The Council of Europe with its ‘soft regulation’ instruments would be well placed to lead such work.

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9 Beck, Giddens & Lash, 1994
References


**David, Paul, & Greenstein, Shane.** (1990). The economics of compatibility standards: An introduction to recent research. *Economics of innovation and new technology, 1*, 3-41.


Data Disruption: Promises and Perils for the Governance of Culture and the Internet of Citizens

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The Internet of Things is about giving everyday objects the power to regulate our behaviour. It comes clad in an adjective that is also a metaphor for more than intelligence “smart”: smart phone, smart watch, smart fridge, ... smart everything. Soon smart museums? Smart paintings? Smart heritage? Morozov calls it the “smartification” of everyday life, I call it the “datafication” of everything—the suffix “-tion” in both cases insists on the current state of mesmerisation by numbers and the calculated control it affords—in the cyberist era that no longer holds a strong relation to modernist or post-modernist landmarks. But the results are the same: primary data connected to metadata with algorithms that yield information about people, most of which they haven’t agreed to and that can be used by anonymous third parties for whatever purposes. Presented as “optimisation”, it is hard to resist: more security, more safety, less energy-loss, less inefficiency... but is the optimisation of efficiency the goal of culture? Doesn’t smart, as a verb, also refer to a source of sharp pain?

The current situation in the world, dependent on digital corporations, points to big data and the Internet of Things as a new approach to governance, what Tim O’Reilly calls “algorithmic regulation” where the feedback produced by sensors and captors orients political and cultural choices, sometimes more powerfully than laws drafted by policy-makers and regulators. The system learns by itself and improves itself by examining the behaviour of many users and adjusting to it. But this is done “in real time”, as Google data often says, “à chaud”, on the spur of the event, without consultation of the people, without a proper Internet of Citizens. So is “algorithmic regulation” the new horizon for culture? And if so, what does it mean for citizens? For the Internet of Citizens?

The risk is to let this kind of regulation transcend the politics of culture, in a vision that is technocratic and seemingly without ideology. Once more the risk of the so-called “neutrality of technology” appears, when history has shown that technology is not neutral and is instrumental to market and state purposes. Both entities, state and market alike, tend to maintain the polarities about online vs. offline, about stable vs. disruptive. They don’t want a third party to challenge their clasp on society and still haven’t recognised culture as a pillar of sustainable development, that can provide a different answer to over-

come the opposition between stability and disruption, a term that is not devoid of political and economical connotations that have consequences for culture.

I. Data disruption and algorithmic regulation

“Disruption” is actually a business concept framed by advertising executive Jean-Marie Dru, as early as 1992, and deposited in more than 30 countries, including the USA, Russia, Japan and the EU. Dru sets disruption in contra-distinction to incremental views on innovation (optimising what already exists), to promote rupture from conventions and cultural biases, to foster creativity and to differentiate the product from its competitors, ending with a new vision of the brand. He suggests 15 types of disruption, among which partnerships, added services, business models ... and data. In this business context, data sustains disruption by “nudging”, prompting the user to modify his/her behaviour. Such nudging is most visible in the health sector at the moment (apps about heart beats, sensors about blood counts...) but all sectors are bound to be affected, including culture.

In the neo-liberal context of the hands-off digital economy, the consequences for culture of nudging are disruptive indeed: put the responsibility on the individual by promoting commercial self-monitoring devices; remove regulation by public services and let the market sort out outcomes by reputation. This leads to disruptive corporate creations such as Uber and AirBnb that upset an organisation of labour reluctant to embrace the digital revolution. In the world of art and culture, the equivalent entities are Bright, Spotify and Netflix, among others. They bypass pre-digital markets, cultural patronage and aids by the state, de facto leaving the artists to their own means. Governments have proved unable to harness the financial manna of such cyber-entities, allowing the creation of megacorporations that don’t pay taxes in the proportionate amount of their use of public utilities and infrastructures in most of the countries where they are established, as evidenced by the recent struggle between the Irish government and Apple (14.5 billion dollars of unpaid taxes since 2003). To governments struggling with reduced resources — especially for culture, an adjustment variable in many countries’ budgets — datafication may first appear as an advantage without even calling for the dismantlement of the policies protecting culture. But once all the public and collective benefits are removed, what is left? How is it possible for cultural workers to extract value and sustenance from content production?

Today’s cultural worker and art producer is much more like a service provider than a creative artist and the IP rights profit only the platforms and intermediaries that possess and manage them. Resorting to crowdsourcing is part of the solution but the framework of state policies is still required for a minimum of protection and promotion of art, be it digital or not. Today’s cultural producers, among which artists, have to deal with engineering, social software, etc. Many artists do web design for a living and practice art as a freelance activity on the side. They are drowned in the many applications that enable young people seemingly to innovate and create, when in fact they produce by template, as amateurs. Smartification does not make for aesthetics, but for entertainment. It does not have a cultural agenda and celebrating technology for its own sake does not yield ground-breaking

and emotionally-grasping masterpieces and artworks. The risk of seeing the fablab replace the atelier needs to be addressed, and not just seen as a celebration of the democratisation of both art and science.

The world of music, often the litmus test in technological innovation, is a case in point. An app like Shazam exemplifies the promises and perils of datafication. Shazam is interesting because it shows the way with music, between proprietary and non-proprietary standards. By patenting its algorithm for music identification, it makes it hard for alternative open algorithms to emerge, turning music recognition into a market and giving this corporation a de facto monopoly by capturing part of the online audience. At the same time, Shazam also allows insights into the aggregated tastes of millions of listeners that might escape elitist experts or commercial top ten charts, as seen in the Shazam “Hall of Fame” archives, year by year. Similar apps like Firefly by Amazon, Google Sound Search and Bing Music identification point the way to how the big corporations invade culture and try to create a “filter bubble” as noted by Eli Pariser: the users’ tastes are tracked and turned into data that provide feedback that reinforces those tastes and try to maintain them in one cultural “portal” where they are offered complementary services, as with iTunes or Amazon, for instance.

If art is to remain a sort of resistance to any kind of establishment, it cannot stay within a market driven techno-agenda or within a naïve political vacuum. The technical apparatus has always been part of new art forms for artists as they encountered new social and economic reasons to embed their message. Artists need to return to the context of today to help make sense of today’s realities, re-start the dialogue with people’s desires and fears, point to ways of reshaping our relation to smartification, critically. The real challenge is to help humans balance the polarised trends of control and empowerment as new media invade citizen privacy and intimacy with digital devices that are no longer presented and perceived as alien and alienating. The celebration of freedom of expression comes with calls for security and securitisation that provide the people behind the tracking platforms unprecedented power by algorithmic regulation. Art and culture are about questioning the source and legitimacy of that power. The glorification of the geek as designer (so evident with cyber-entrepreneurs such as Steve Jobs, Mark Zuckerberg, Bill Gates…) should not erase the image of the artist as thought-provoker.

At the moment, only dystopian fantasy seems to provide a critical reading of technology gone awry and of disruption leading to chaos. The stories told therein are all about post-technological disaster societies plunged in terror, exile, starvation, migration, as exemplified in Hunger Games (Suzanne Collins, 2008-10) or Divergent (Veronica Roth, 2011-13)... They provide a dense visual culture recombinated with a rather radical discourse on the politics of power and control to which individuals have to yield, or against which they need to rebel... And of course this cyberculture is being recuperated and produced by Hollywood turned Hollyweb and its transmedia strategies (from books to movies and video games...).

II. Data disruption in the face of human disruptions

But data disruption can also be seen as a positive dimension of culture and discarding it could hinder the full use of data for creativity, for empowerment and for giving voice to the underpowered. Art can also be part of engagement and empowerment for people, now as

8 Eli Pariser, The filter bubble: what the internet is hiding from you, Viking, 2011
9 nathaliemiebach.com
much as ever, and data art does not escape the rule. Nathalie Miebach uses data in her project “Recording and Translating Climate Change” to create sculptures and musical scores. Yann Toma (Human Energy/Eiffel Tower event) drew attention to climate change by illuminating the Eiffel Tower with people’s energy. Pierre Esteve (FLOWERS 2.0) recycled plastic flowers and equipped them with captors that vary light with the presence of passers-by.

Such artists point to the fact that disruption happens also in real life and much of culture in the XXIst century is going to be defined by real people issues, especially their migration (due to war or weather), as a litmus test to democracy whose values are being challenged by refugee crises, shifting borders, rising walls and asylum-seeking homeless migrants. They show that culture can address the challenges of dealing with disjointed spaces and diasporic societies, from which state and market are tempted to disengage. Real inclusion today spans from neighbours next door to neighbours abroad and online. Culture can be a lifeline of solidarity to resist the apparent unavoidability of smartification.

Beyond artists, data also helps mobilisation around art and culture for inter-cultural dialogue. For instance, bablbooks, — originally a publisher of paper books in bilingual edition — has created an app devised by young people that uses crowdsourcing to help translate children’s books, with the final review being done by professional translators. The idea is that parents and teachers submit their own translations, while professional translators ensure that the combined result of all the submissions is truly colloquial and representative of how native speakers would express it. Books translated in Tagalog are top of the list, reflecting the cultural expectations and needs of this cultural group while enlarging the presence of the Filipino language on the web.

Virtual Migrants is a collective that calls for attention to global issues such as race and terror. With their EXHALE project they showcase electronic art and music engaging with asylum and migration. They have also called on crowd-funding for “ Continent chop chop”, a transmedia performance based on the work of Nigerian poet Nimmo Bassey, making the case for Climate justice, opposing global austerity policies and in favour of tolerance for refugees.

Erasmus +Project ECFOLI uses a Massive Open Online Course (MOOC) to sensitise young people to their common cultural heritage. It trains practitioners to help them write stories that encapsulate their everyday experience of art in their street (often a buffer zone in a conflict area) and then to digitise the story with the artefacts in it, using video and game design. Digital storytelling is used for conflict resolution as one of the competences in Media and Information Literacy (MIL). Such a process aims at fostering a sense of diversity and tolerance in culture, to fight radicalisation and extremism.

Digital culture in the form of videogames is also contributing to conflict resolution. News games have been multiplying since the beginning of the migrant crisis. Not dependent on mega Hollyweb studios, the developers borrow from video games to provide their users with an immersive situation of the migrants’ plight, in order to foster a better understanding of the traumatic conditions of exile and to create empathy. For instance, the Swiss studio Blindflug has launched “Cloud Chasers: Journey of hope” to elicit solidarity with exiles as the gamers can follow the tribulations of a father and daughter across the desert.

10 http://translate.bablbooks.com/
12 www.ecfoli.eu
14 www.blindflugstudios.com/
The game is available for smartphones (iOS and Android). Mobility (as in mobile technology) can thus be an asset as long as it allows people to transport their culture with them and to stay close to it at a distance.

These examples have several elements in common that point to the centrality of culture. They use storytelling as a means of keeping people together, cementing memories and values, modifying representations of the world with art. They rely on creativity as an emanation of inter-generational dialogue, intercultural exchanges, tolerance and dignity. They bring in the voices of young people with access to technology in the service of those who haven’t such access. They show that migrants can remain connected with their home country instead of being broken apart. They present alternative responses to radicalisation and nationalism. They provide an answer to “non-spaces” such as no-man lands, buffer zones and refugee camps where migrants accumulate the burdens of exile (from their native land), exclusion (behind walls) and exception (to most of the laws of the states they are in).15

These examples epitomise what data disruption can do for diversity and inter-cultural and inter-generational dialogue when ethics comes before technology and guides its design. It can help solve problems of the real world for real people, not for robots via robots. Such problems are not going to go away, due to climate change and the expectations of climate refugees, not to mention conflicts of various amplitudes in several parts of the world. For these examples to bloom and to be successful and sustainable, it is important to unpack the whole potential of the Council of Europe recommendation on the Internet of Citizens and thus smooth the rough sailing for democracy in the current testing circumstances.

III. Unpacking the disruptive potential of the recommendation on the Internet of Citizens

In the first stages of its elaboration, the recommendation toyed with a different wording, opposing the “Internet of Subjects” to the “Internet of Things”. The choice of the final wording “Internet of Citizens” has a more political connotation, as subjects in the digital world can be abstractions controlled by algorithms and data aggregates that enable trading of online profiles. Constructing the subjects as citizens is a political and cultural question that needs to be considered with the prism of algorithmic regulation and datafication. The experience of online presence, to be empowering, needs to be construed as sustenance in a complex holistic manner that is not just techno-operational. How to ensure that the current mantra of “data are us” becomes “data are for us”?

The recommendation points to several policy guidelines in its introduction, especially the role of human rights in relation to data (1.5):

a) ensuring that all data processing is carried out in conformity with the principles laid down in the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (ETS No. 108);

b) full respect for the 2005 UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions.16

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15 Michel Agier (ed), Un monde de camps, La Découverte, 2014.
It then proceeds to recommend 1/ “modernisation of cultural institutions”; 2/ “creative citizens” empowered by “the transformative use of copyrighted works (such as sharing, disseminating, archiving, remixing, mashing-up or consuming)”; and 3/ “Multiliteracy skills for access to, creation and management of digital culture”.

Unpacking the guidelines from such a standard-setting document can be a creative roadmap for culture. It needs to be broken down into smaller units so that its implementation does not lose a shared vision that keeps the individual and the collective bound together and clearly positions culture as a pillar for sustainability and empowerment that provides employment, entertainment and wellbeing (beyond health-by-apps), across borders of age, gender and nationality.17

- The non-separation between the Internet of Things and the Internet of Citizens

At the moment two parallel conversations are taking place in different spheres that ignore each other: the conversation on critical technical resources that monetise data and their disruption (ICANN, ISOC, ITU, mostly between states and the private sector); the conversation on critical human rights in the digital era (Council of Europe, UNESCO, mostly between states, the public sector and civil society). In both cases, the decisions are taken far from users and cultural workers, often to the detriment of their interests, while a whole series of connected non-human agents are appearing without rights and responsibilities (robots, sensors...).

Nothing can be done to bring these conversations together if states and Inter-Governmental Organisations do not organise a common platform for debate and decision-making with regulatory and legal mandates.

- The portability of personal data

The current automatic processing of personal data dispossesses users of their voluntary and involuntary traces online. They are rarely consulted about the commercialisation of their data and the commodification of their profiles. They don’t reap the benefits of their online participation and their online work (often framed as play). They are at risk of alterations made by non-authorised third parties that can result in lasting damage to their reputation.

Nothing can be done to empower citizens if states and Inter-Governmental Organisations do not ensure user consent and support any technical and legal innovations that provide for the portability of personal data so that users are not captured by the logic of portals and the filter bubble, and have mastery over the destiny of their data (and their online presence and expression), during their whole life and after.

- The rights of cultural workers to extract value and sustenance from content production and distribution

Cultural workers do not benefit from any fair and balanced means of sustenance for the added value of their labour in the digital economy. Their work is not recognised, protected or funded enough. Crowdfunding remains a makeshift solution without proper regulation and all forms of work that deal with data remixing and mashing-up are under-developed or downright criminalised, while there could be technical digital solutions for a better distribution of such activities, highly related to the future of creative industries and digital humanities.

17 Bruno Durieux (supervision), L’apport de la culture à l’économie en France, 2013
Nothing can be done to promote sustainable forms of online culture if states and Inter-Governmental Organisations do not come to a full revision of IP rights to incorporate the full consequences of datafication, with the recognition of new subsets of rights related to remix and collective mash-up that recognise the fact that the notion of the artist is changing to include mastering programming languages, operating systems and designer software claims for collaborative team-work. This exploration also encompasses fair and proportionate taxation of multiple uses of cultural works by digital mega-corporations.

- **Critical Internet literacy as part of MIL**

Users need to understand datafication at an early age, in order to master its benefits, avoid its perils and influence its policy as Citizens, ensuring in particular that the corporate world addresses the real needs and issues of globalised societies. Critical Internet literacy needs to be better incorporated to Media and Information Literacy, not to be confused with operational digital literacy — currently mostly concerned with code, not values. MIL is also about fighting radicalisation, spotting propaganda and deconstructing plot theories while also providing tools for debunking stereotypes (about gender, migrants, minorities...). MIL can potentially reboot education with new pedagogies of participation.

Nothing can be done to ensure the transition to XXIª century multi-literacy skills if states and Inter-Governmental Organisations do not make certain that education is properly funded and that teachers and practitioners are suitably trained in MIL, in all its digital dimensions (operational, editorial, creative, ethical...). This implies going beyond the subsidiarity principle that currently regulates education in the EU, as a matter of inter-sectorial strategy that also implies working with ministries of culture, youth, economy, labour... This also involves the corporate social responsibility of the private sector, possibly in the development of a referential professional framework for the creative jobs emerging from the digital revolution.

- **Internet Governance to mitigate algorithmic regulation**

Behind algorithms, there are people in control of datafication and the calculated power it affords them. Currently they are not held responsible for the intended and unintended consequences of data disruption, as if they didn't have real life consequences for most citizens. While this vacuum has encouraged innovation and the development of the Internet as a critical resource, it has created new vulnerabilities and created new divides.18

Nothing can be done to legitimise Internet Governance if states and Inter-Governmental Organisations do not oversee the management of data within democratic shared values, involving all stakeholders in the creation of a viable and sustainable set of policy guidelines. Internet Governance needs to be the spinal cord that holds together the Internet of Citizens and the Internet of Things, the glue that gives it direction and principles.

- **Digital frugality as a criterion for valuing digital platforms and services**

The new vulnerabilities illustrated by the migrant crisis and its interpretation by engaged artists show that, increasingly, the digital urgency is associated with ecological urgency, that Internet fairness is also connected with climate justice. Internet is one of the biggest

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current polluters with a growing carbon footprint. Datafication is energy-greedy and this greed expands exponentially as the industry seeks to connect the next billion. Users are neither informed nor consulted about the storage solutions in use and the consequences of digital pollution (on countries, on the seas...) .

Nothing can be done to promote the digital contribution to climate justice if states and Inter-Governmental Organisations do not support the necessity to produce alternatives to the solutions currently in use within the Internet industry, to favour systems and software that augment self-regulation and diminish the digital carbon footprint. This should be packaged in deals with corporations and small businesses alike, when funding is considered for nudging their behaviour and elicit attitudes that are favourable to frugal prosumers, for sustainable digital development and solidarity economy.

For disruption to be really creative and to work in culture and education, it needs to be compatible with a vision of humankind based on human-rights, and on citizens who vote with a clear knowledge and understanding of Internet governance, — of which algorithmic regulation is only a subset. Data collection is not to be equated to cultural curation. Digital guidance is not to be used without human guidance.