CULTURE 4D

Digitisation
Data
Disruptions
Diversity

CONFERENCE REPORT

3rd Council of Europe Platform Exchange on Culture and Digitisation

Tallinn, 29th –30th September 2016

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Introduction

Culture 4D: Digitisation, Data, Disruptions, Diversity was a Council of Europe conference hosted by Tallinn University and Estonian Ministry of Culture within the framework of the Estonian Presidency of the Council of Europe's Committee of Ministers.
The conference rationale was 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 focused 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 was titled 'Small Europe, Big Data' and focused 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, therefore, looked into such questions 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 focused 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 considered 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 was how can we in Europe contribute to societal inclusion through digital culture?

2 Programme of the Conference

Thursday, September 29th

Moderator of the day: 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-Saupe, 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 of the day: 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 Brezoiu, 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

3 Conference presentations and discussions

Thursday, September 29th

Opening session

The moderator **Indrek Treufeldt** gave the conference opening words. He emphasised the importance of the day for Estonia due to the opening of the new building of Estonian National Museum. He also reminded that we need new words for the new world, expressing his hope that the present event would contribute to the development of such conceptual vocabulary.

The moderator's short introduction was followed by the welcoming speech of Estonian Minister of Culture **Indrek Saar**. He welcomed all the speakers and participants. He reminded that this conference was already the 3rd of its kind and covered shortly the main topics the two conference days would focus on. He pointed out the unique opportunity to discuss the crucial digitisation topics with the leading experts in the community and to think how these discussions could contribute to enhancing global democratic values and who would be the most important counterparts to put the ideas into action. Mr. Saar highlighted the stabilising role of culture in the society and the important role of digitisation in enabling us to preserve cultural heritage. Mr. Saar pointed out that the Culture 4D conference was one of the main events hosted by Estonia during the present chairmanship of the Council of Europe. The general priorities of this chairmanship are: human rights, gender equality and the rights of children – which all are closely related to the conference topics. Mr. Saar ended his speech by thanking the Council of Europe for its active approach by creating a platform exchange for culture and digitisation with the aim of supporting democracy online and by means of digital citizenship, digital culture and education and by creating relevant discussions in Europe.

The next opening address was given by Director General of Democracy of the Council of Europe Snežana **Samardžić-Marković.** She started by thanking the organisers and hosts of the conference and emphasised Estonia's leader position in digitisation in Europe. She pointed out that the Council of Europe is sharpening its profile as a key actor of Internet governance and has just launched the new Internet governance strategy for the years 2016-2019. The strategy offers a comprehensive framework for standards setting, awareness rising and is aimed to ensuring that public policy for the internet is legal-centred and human rights are protected online. She highlighted that the digitalised world has started to serve as a new public space where potentially everyone can sheer his or her views and expressions.

She reminded that two platforms of exchanges have already been held: one in Baku on enabling the environment for digital culture and empowering citizens in 2013 and the other one in Linz on smart creativity and smart democracy in 2014. The 3rd Culture 4D platform exchange in Tallinn builds on this work. The rationale is based on the understanding that new digital and networked infrastructures should be used to reinforce access to and participation in the open culture thereby strengthening democracy. She emphasised that besides that digitalisation simplifies our life and leaves us only creative work, we should also keep in mind the problematic tendencies about the diminishing privacy, centralised corporate interests and governance surveillance.

Ms. **Samardžić-Marković** continued by highlighting the current trends about digitalising cultural activities including watching moving online, streaming videos, reading books, listening to music or creating or sheering artistic creations; and the amounts of data being created via online banking, booking, digital transactions etc. All this data can be used to improve cultural services, but it can also be processed to create personal cultural profiles of users, which can also be used to manipulate their further cultural choices. She stressed that the question we need to reflect upon here is how to successfully secure the benefits of big data and how to ensure transparency of the data usage.

She highlighted that the Council of Europe has tried to respond to these questions and issued a number of standards, including policy recommendations. She especially highlighted the recommendation of the Internet of citizens which underlines the importance of empowering citizens and making them more aware of their rights in the digital world not only as consumers, but also as cultural creators.

She stressed that there is much hope connected to digital culture: to be participatory, egalitarian, decentralised – in other words: democratic! However, this is also accompanied by different threats. She pointed out that the core question is how we in Europe can contribute to social inclusion in digital culture. Thus, building inclusive society is one the priorities of the Council of Europe. She emphasised that internet offers unseen opportunities for inclusion. She concluded with the call to action to come up with policy recommendations to build on true Internet for citizens.

The next speaker was Tallinn University's vice rector **Katrin Niglas**. She started by expressing her gratitude for the opportunity host this conference and thanked the organisers and participants. She emphasised that the event enabled networking not only within academic circles, but also between the academics and policy-makers and many other stakeholders of different fields of life. She pointed out the goals of Tallinn University's development plan 2020 which brings out five focus areas. She showed how each of these focus areas contribute to the topics of the conference. For example, the focus area 'cultural competences' discusses the access to culture. The area of 'educational innovation' rises the issues about media literacy and the development of education systems; the focus area 'healthy and sustainable lifestyle' deals with the topic of balancing the virtual and physical world: how participation in the digital world could enhance the participation in real world; and the focus field 'society and open governance' highlights and elaborates on the subject of human rights.

Session 1: Small Europe - Big Data; Towards the Common Good

Keynote: Prof. Philip Schlesinger (University of Glasgow)

Prof. Schlesinger spoke about Europe from the angle of the continuing importance of nation-states and borders He took a brief look at the history of Estonia's independence from achieving independence in 1918, to losing its again in 1940, to regaining independence in 1991 up to achieving memberships in NATO and EU. He called it a typical European story of statehood and borders.

He continued with his recent political experience related to the United Kingdom and Brexit. He argued that due to the result of the voting over the UK's membership in the European Union, he had against his will lost part of his identity: the European identity. He claimed that Brexit has (re)opened the questions pertaining to how we think of culture and diversity in Europe and brought along a (new) identity crisis. He also made a short retrospect to Scottish referendum two years ago where Scots voted for to remain in UK, but this does not mean that this issue is closed. He claimed that until 23rd of June 2016 his political identity was constituted of three separate levels: 1) Scottish nation, 2) British state, and 3) EU citizenship. Every aspect of the identity is today unresolved. He argued that the fabrications employed during the Brexit campaign underlined the presence of post-truth politics – what, as understood by political economists, feels true, but has no basis in fact. This has consequences for what we consider as politics and raises the question about how we interpret the data, questions the news reporting, but also how algorithms of news production constitute limited agendas, conspiracy theories, fake stories and so on.

As a next topic he discussed about Internet of citizens and referred to the recommendations the Council of Europe adopted in February this year. As described by the Council of Europe it represents the people-centred approach to the Internet.

He also discussed the notion of citizenship. On the one hand citizenship positions us in a relation with the state and, in this sense, entitles us register to vote, provides benefits due to belonging to political community, but it also requires us to obey to legal order and contribute to general welfare by paying taxes. Citizenship in this sense is considered as a political construct. On the other hand, he argued about the quality of being human. Human rights are considered something that is not limited to certain state borders or state legal system. The Appendix 1 of Council of Europe's recommendations makes precisely that mood by invoking human rights approach. It makes reference to the protection of human rights and fundamental freedoms. It also refers to UNESCO convention about the freedom of cultural expression in 2015.

He argued that it is important to note that citizens defined by the states and individuals reflected by the human rights approach addressed by the Council of Europe co-exist.

As follows, he talked about digital culture that is considered as one of the key issues of today's cultural policy. The recent trends reveal the radical expansion of scope of cultural policy. It encompasses everything: high culture, legacy, media, and creative industries. Due to massive digitalisation there is also an expansion of cultural forms.

He named it as enlarged project of cultural policy. This raises interesting questions, including how the cultural policy fits into existing government departments and regulations. Due to this creative turn, culture has been recognised by governments everywhere. One of the evidence of that is the creation of common digital space on European level: the Digital Single Market (DSM). This can also be considered a true response to nationalism. The aim of DSM is to create common single space for culture and communication, common legal framework for copyright and so on, but it raises also some critical questions. E.g. the proposal of Internet of citizens (IoC) raises the question about the modernisation need of governance institutions due to massive digitalisation. He argued that the challenge today is what goes beyond the business as usual of IoC. He also pointed out the Internet of Things (IoT) and raised the question about the complementarity of the concepts of IoC and IoT or competition between them.

He summed up by pointing out the following:

1. The present state of Europe raises important questions about the content and the circulation of culture and the very idea of European cultural space.
2. IoC is still a slogan to search what story to tell. There are tensions between human rights perspective and markets' perspective.

The keynote speech was followed by the Q&As on the following topics:

- *How do the developments related to CCI influence the current crisis?*

  Prof Schlesinger answered by claiming that what is happened in EU in the past decade, is that there has been an internal struggle ideas between of culture and CCI. The current state is a compromise. If to look the EU programmes, e.g. Creative Europe programme, and the policy papers you notice that there has been a swing towards regarding culture important in the relation to important economic consequences (international trade, employment, building infrastructure and so on). He admitted that there is nothing wrong with these rationales, but the argued that if you start with the market, you end up with the market and everything else is subordinated to the market.

- *In the context of this enormous failure in the UK, what is the role of cultural studies? And how can this new digital challenge help?*

  Prof Schlesinger said that there are several answers. He claimed that he would put digitisation second and highlight the older things and failures regarding to not being able to respond to EU crises during the last century. Regarding British situation, one thing that has been clearly revealed is the fragmentation of big Great British state. There has been no constitutional modernisation to balance these developments. Another important thing to pay attention to is what is the level of political knowledge, e.g. what people really understand regarding the nature of migration. In regard to cultural analysis he said that we just have to start over again. He claimed that the obsession of economic aspects of culture is a complete dead end because it does not help to understand the complexity of things.

Panel 1: on opportunities and challenges of cultural big data for the common good,

moderated by Indrek Treufeldt (Estonian Public Broadcasting)

Alison Powell (London School of Economics and Political Science) introduced the paper that she wrote with her colleagues few years ago. It focused on the question: is it possible to think about big data from the bottom-up? How to think about citizenship in relation to expansively digitalised world. They came up with the idea that the big data and the algorithmic world and algorithmic iterations of data don't necessarily have to be alienating spaces. The topics they explored included for example, how to use big data tools also for social purposes, how to create more structures for open data for public institutions and how to construct and use different data and related analytics.

In addition, she highlighted the topic of big data and small organisations. Big data is constructed by big institutions and big institutions have usually more capacity to make sense of this data. Thus, she pointed to the inequality problem of access to data and the capacity of sense-making of data between small and big institutions. She brought an example that small cultural institutions (e.g. small museum) which seek for big data and are interested to use social analytics, often realise that there is no data available they could use. Thus, one of the important questions is do we wish to use the analytics that is presented to us or we wish to transform this analytics.

She also pointed out the topic of dual nature of transparency. The understanding that everything has to be transparent makes privacy a luxury good. This leads to the discussion on data protection regulations and asks for how to explain algorithms calculating big data in a way that people understand them. All in all, this raises the question how to think about human rights in the era of big data.

Jean-Pierre Evain (European Broadcasting Union) talked about big data from the telecom and broadcasters point of view. He started with introducing how they approach to and understand big data. He pointed out that today we do not so much talk about big data, but rather smart data. Because big data could be everything and if people don't know what to with it, how to use it, how to process it, how to use proper analytic tools and so on, then big data has no point.

He pointed out number of principles related to big data production and usage that are expected from telecom organisations: we want you to be transparent, we want you to collect relevant data, we want you to consider privacy important and also, we want you to build trust. He also highlighted the cross-usage of data on different platforms and devices as well as important role of broadcaster organisations in connecting different data.

As a third important topic he discussed about understanding the audience: the patterns of media usage and how this is related to the different profiles of people and which data and how does explain that. For instance: important is not only what a person is watching, but what he/she is not watching. And what should that pattern tell to broadcaster? If to say that this kind of content should not be discarded, then the question is what I can do to make people watch this content.

Fourthly he covered the topic of media content creation. He pointed out the trend about generating news and articles automatically and referred to the threats related to that.

Finally he introduced a project called 'Generation What'. This transmedia format combines an online questionnaire about life, love and work aimed at young people aged 18-34 and features an interactive website, web videos, TV documentaries, and radio and newspaper content. The responses will be analysed by sociologists in an attempt to increase understanding of the opinions, behaviour, aspirations and values of young people in more than 30 European countries. As a result the project provides lots of recommendations regarding new work patterns, profile of needed skills, etc.

Cornelius Puschmann (Humboldt Institute for Internet and Society), discussed cultural big data. He started with posing a question what cultural big data is. He made a distinction about heritage data, its different forms and age and related privacy issues (e.g. do the intellectual property rights hold or not); and the data related to social media platforms. He pointed to the differences in the context of production, usage and legal status of the data and the challenges that are, thus different too.

Another topic he focused on related to the accessibility of cultural big data. He posed a question: how to make cultural big data more accessible in Europe? He referred to different initiatives including Europeana and other projects. He emphasised that that one should see different futures how things may develop.

He also brought out an issue about different openness of data. The web is much more open than social media. He indicated to the positive example of www archive and brought an example of his colleague who got scholarship to US congress library to work with Twitter archives where there weren't any archives to study. All in all, he made a point about difficulty to reach to the materials when they are legally and technically out of our reach. He concluded with the argument that we should expand our focus and vision towards social media platforms.

He ended with emphasising that skills are crucial issue and called for not building wall and more looking alternatives in usage and handling of data.

Maarten Brinkerink (Netherlands Institute for Sound and Vision) talked from the heritage organisations' point of view and made a special focus on audio-visual archives. The collection he introduced consisted of million hour's material.

He focused on two topics: 1) the opportunities related to cultural big data for the public good and 2) the challenges that need to be tackled.

One of the opportunities he brought out was that institutions are moving from being traditional archives towards networked archives. This means that we can broaden our audiences in terms of volume and efficiency. Furthermore, we are able to link our collections and information with each other and this also opens up new modes of participation and relationships with audiences. Thus, we are talking about cultural data beyond institutional borders and that cultural data connects different entities. He referred to Europeana as example where over 50 million digitalised items are connected using standardised metadata.

Regarding the challenges, he pointed out the current Internet of Things regime which favours market and not public good. Secondly, he highlighted that although there are initiatives as Europeana, these are not too impactful yet.

He offered couple ideas how to move on in this situation to strengthen the cultural institutions to remain continuously relevant. One of the things he highlighted was the need to foster the idea of digital commons. He considered important the building of new forms – so to call engaged citizenship – that help to work together with the audience. He saw that one possibility to achieve that is building not only alliances among the institutions of cultural heritage, but also with those that represent citizenship, public interest, and so on. Having these institutions on board will help to build something impactful.

The presentations were followed by the panel discussion where the moderator **Indrek Treufeldt** posed the following questions:

- *How to find an idea for cultural policy and how to identify the object and objective for cultural policy concerning big data? How to get benefits from big data and what should be the mission?*

  Jean-Pierre Evain emphasised the importance of keeping the eye on the things that have already being done (instead of creating something new), including the regulations that have been adopted. Among other things he stressed the importance to follow the activities related to data protection privacy.

  Alison Powell posed the question about is the data the right word to capture the things we are talking about? She indicated that we are talking about at least two different kinds of things: 1) Cultural material that is archived. We can consider all things in the world as data if we consider them as such; 2) But when we are talking about big data, then we are talking about quantifiable traces and this is different from just archived cultural material. Regarding archives we are talking about the quality of the material itself is it digitised or not. When we are talking about quantifiable traces and the computable processes of peoples' actions, then we are talking about the measurement of behaviour that is not previously measured.

  Cornelius Puschmann continued the discussion with highlighting the dual situation: there is a positive vision regarding what to do with the analytics data, if you're a company, but the vision is not so clear if you are a non-commercial or public institution. Regarding data protection we should also think about what we want to achieve and what we want to maintain.

- *Could we use the algorithmic power to create something that is good for the public and serves public interest?*

  Alison Powell responded by indicating that it depends on the algorithms and the tools that are being used. She pointed out that social scientists don't understand the algorithmic processes that are used to create news (as these are secret traces) and highlighted the role of journalists as decision-makers in these processes. She also emphasised the importance of creating balance in news' production and having alternatives in making news feed. One of the important challenges is to train the editors to understand (more) data creation processes and data analytics tools.

  Cornelius Puschmann marked that people tend to be too concerned with technical things and tend to blame the policies and regulations for not getting such news feed they would like to. He argued that this cannot be solved with regulation only.

  Maarten Brinkerink called to look for small good examples that are already there. He pointed out one researcher from Australia who talks about digital ads and digital identities.

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 culture's of Europe's different minorities, moderated by Indrek Ibrus (Tallinn University)

Andrew Hoskins' (University of Glasgow) talk focused on archives as vehicles of cultural memory and the changes in both the role and the workings of archives brought about by digitisation. Dr. Hoskins started by discussing his work on the cultural and organisational memory of the British army and the transformations he has observed therein in the last decades. Since the World War II, British soldiers involved in military conflicts have been required to submit monthly 'war diaries', which are then archived by historians in an effort to create an archive that would allow to avoid repeating past mistakes. These data, however, have another significance, shaping how war is seen, contested, remembered and forgotten. In this regard, the recent changes in archive management and the shift towards privatisation are a crucial issue both in terms of cultural memory of war and cultural memory at large.

Dr. Hoskins raised three key issues wrought by the digitisation and privatisation of archive records and, through them, organisational memory.

The first issue is that the digitally fostered values of open access can have unintended and unfortunate consequences. For example, there used to be a rule demanding all UK government records are assessed in 30 years and either destroyed or released in the public domain. Recently, due to the digital technology-induced emphasis on immediacy, this period was reduced to 20 years. The unfortunate result of this change has been the over-destroyal of records due to the sensitive nature of the data, leading to the loss of records with great cultural and historical value. 'Fast history,' Dr. Hoskins emphasised, 'is not necessarily better history'.

The second issue is that the shift to privatisation has meant that organisational memory is often treated as a low priority. Recording is often done as an afterthought, rather than a process intrinsic to the business. As a consequence, effective creation and maintenance of accessible records has been fundamentally weakened.

The third issue pertains to consequences of the complexity and the volume of digital records. The shift from paper to digital has led to the emergence of hundreds of millions of digital files. The question Dr. Hoskins posed is whether any form of human assessment could ever be able to effectively deal with such complexity. In the era of digital accumulation, who and how is to determine whether a record is to be destroyed, retained, or made public?

The close entanglement of the personal and the official in the digital sphere present a further challenge, of which the recent Hillary Clinton email controversy is a case in point. It is hard to imagine, Dr. Hoskins, argued, how in this new context, the personal and the official can ever be disaggregated to enable the release of official data to the public.

Dr. Hoskins concluded by stating that it is only by taking together the technological, the cultural, and the political dimensions that we can grasp the current challenges for data management and for cultural and organisational memory, as well as the changes they are facing and their consequences.

Peter Stockinger (INALCO) presented a series of general remarks on digital archives and cultural identity in relation to what has been called the 'meaning economy' (or the 'knowledge economy'). The meaning economy, Dr. Stockinger explained, is characterised by production and consumption of data and objects which express personal and collective experiences, emotions, expectations, desires, beliefs and knowledge. This economy manifests most clearly in multisensory communication, immersive 3D and 4D datascapes, the tailoring of data to individual preferences and needs, co-creation of objects and data by consumers, 'smart' and self-assembling data, and so on.

Dr. Stockinger proceeded to discuss how the meaning economy affects digital archives and cultural diversity. He argued that while we tend to think of archives as means of selection, storage, and preservation of data, we need to consider at least four other dimensions: preservation regulations and rules; meta-data and their use for identifying, commenting, enriching, and linking data; processual knowledge of storing, accessing, reading, reusing, and interacting with data; and archives' role as parts of a social and cultural ecosystem: a pool of meanings shared by a collectivity of individuals, communities, institutions, social movements, and so on. It is important, Dr. Stockinger stressed, to look at how these ecosystems use digital archives to maintain their pool of meanings, enrich it, transform it through contact with other ecosystems, and defend it against external and inner influences perceived as menacing. These ecosystems manifest on social media platforms. YouTube, with its millions of videos, playlists, and channels can be seen as an assortment of digital archives situated within different meaning ecosystems.

Dr. Stockinger also stressed that the concept of cultural diversity can be interpreted in two ways. The traditional understanding of cultural diversity is connected to the realms of the national, religious, and political. A newer understanding of cultural diversity pertains to brand and consumer cultures, lifestyle cultures, organisational cultures, and so on. These cultures underlie and crisscross the first tier of cultures, such as national and political. For both tiers, archives play a crucial role here, helping establish, preserve, and defend identities, complex and conflicting as they may be.

Marju Lauristin's (University of Tartu) contribution drew both from her research at the University of Tartu, which focuses on the transfer of cultural knowledge between groups and societies, and her experience of serving in the European Parliament. She stressed that when discussing the role of archives it is important to adopt a people-centred approach, as opposed to an archive-centred one. Dr. Lauristin referred to the opening of the new National Museum in Tartu and posed a question: what is the role of museums as venues of intercultural communication in the face of the migrant crisis and other challenges Europe is dealing with at the moment? Her suggested answer to the two questions was based on the concepts of 'interoperability' and 'portability', which Dr. Lauristin stressed are not merely technical terms, but can be extrapolated to refer to the processes of cultural translation. The role of an a museum in the digital era, she suggested, is to provide an interface that would enable such cultural translation between digitised cultural knowledge and an individual from outside the respective culture.

Dr. Lauristin argued that the digital shift in the process of cultural transfer has led to a new divide in society. Overall, four main groups can be distinguished based on their cultural and digital competences. The first group comprises people who possess both cultural and digital skills. Their position in society is relatively comfortable and flexible. The second group includes people who are digitally literate, but have insufficient cultural competence to effectively operate in society, which, according to Dr. Lauristin, includes many young people today. The third group has sufficient cultural competence, but lacks digital skills, which increasingly limits their social agency. This group mostly comprises senior citizens. Finally, the fourth group includes those who lack both the necessary cultural and digital skills.

The role of the museum as a cultural memory institution, Dr. Lauristin stressed, is to cater to all the four groups. This includes helping the fourth group communicate with the others. Digital technology, she argued, while presenting society with new challenges has also created opportunities to help people overcome both cultural and technological barriers. And cultural memory institutions should seek to harness these opportunities.

In Dr. Lauristin's opinion, many of those seeking refuge in Europe find themselves in the last group, lacking both the digital skills and cultural competences relevant in the new environment they find themselves in. Yet on the EU policy level, there has so far been little discussion on using digital technology to help migrants deal with these barriers. This is in no small part due to a lack of relevant knowledge on the side of both policy makers and academics. In fact, the corporate world seems to be in the lead here: Google, for example, is already implementing apps for migrants. Policy makers, Dr. Laurstin suggested, should seek to learn from commercial entities' experience in the field while remaining critical of their corporate agenda.

Monika Hagedorn-Saupe (State Museums in Berlin) discussed her research on the impact of digital cultural heritage on identity building within European communities. The study focused on minority communities in the UK, Italy, the Netherlands, and Germany in an effort to find out how cultural heritage influences the feeling of belonging but also the capacity for intercultural understating. Respondents were asked what made them feel (or not feel) European. The resulting data suggested that despite the strong attachment respondents had to their local identities, a strong feeling of belonging to Europe also existed.

The research group concluded that, in order to further foster this feeling while still promoting cultural diversity, a number of steps need to be taken. First, it is important to improve multi-lingual access and multi-lingual content. Second, there is a need for better mediation and contextualisation of content, as well as more participation opportunities. Third, awareness needs to be raised of digital media technology and linked data in order to further their effective use, and more effort needs to be put into curation to improve public access to relevant cultural content.

The research also confirmed that minority communities made active use of digital practices to foster a sense of belonging to their 'home cultures'. One case study focused on the Spanish-speaking community in Berlin, which, despite its members ethnically and culturally diverse backgrounds, still functioned as a community thanks to the use of common language. Social media proved to be the most important means of communication between community members, but diasporic media played an important role as well, reinforcing the sense of belonging in the absense of other means to maintain ties with homeland. The degree of interest in and consumption of German mainstream culture through local and national media mostly depended on people's personal backgrounds, experiences, and language skills. Diasporic media, however, did provide some coverage of German mainstream culture, enabling people to partake in it.

Digital media, Dr. Hagedorn-Saupe concluded, are a tool of consolidation, bringing different cultures together, while innovative technologies and ways of storytelling are important in helping foster specific cultural expression.

The discussion, moderated by **Dr. Indrek Ibrus**, revolved around several questions:

- *What exactly do we refer to when we speak of cultural memory? Are we speaking of national memory, or a European cultural memory? The hope that the free flow of content across national borders may facilitate a better intercultural understanding and appreciation of Europe's shared culture has not fully materialised. There still appears to be a tension between the national and European dimensions of cultural memory.*

  Dr. Marju Lauristin emphasised the importance of the personal dimension in culture. Culture, she stressed, is not abstract; it is comprised of personalities, and an increasing number of people find themselves under cross-pressure from different cultures. She also highlighted the role of language as both a unifying and dividing factor both in national contexts and at the European level. Finally, Dr. Lauristin expressed her concern about the emergence of digital information bubbles, which can be very harmful for intercultural understanding.
  Andrew Hoskins argued that the most productive way to deal with cultural memory is to look at it as a set of practices, rather than an abstract notion.
  Monika Hagedorn-Saupe stressed the role of education in helping citizens reconcile the national and the European levels of cultural memory.

- *How do we deal with forgetting and the right to be forgotten, which are not often discussed in the context of cultural memory? Should there be a standardised approach to preservation that gives consideration to this right?*

  Andrew Hoskins was sceptical about the possibility of such a standardised approach, pointing out that it might be too late for that due to the decentralised nature of cultural data and the multitude and diversity of entities controlling its fragments.
  Dr. Marju Lauristin opined that the tension between the right to store information and the right to be forgotten is something that needs to be considered when working on privacy regulations. She also said that the advent of the digital has added new complexity to notions we have been taking for granted, such as culture, memory, and so on.

- *How should we adapt to the new reality in which there is no clear separation between user data and archive data?*

  Peter Stockinger pointed out that the recontextualisation of texts in digital archives poses a particular. For example, playlists compiling selected fragments of television news, edited news videos, and mashups can lead to an emergence of totally new meanings not found in the original texts.

  Dr. Marju Lauristin argued that, first of all, the notion of 'digital content' needs to be given a clear definition, and this definition needs to build on the expertise of cultural studies and semiotics, rather than a purely technical understanding of the digitality. If we are able to redefine the digital in cultural terms, we will, in her opinion, be better equipped to study its impact on society including the blurring of terms such as user and archive data. On a policy level, Dr. Lauristin called for more cooperation (rather than competition) between different regulatory bodies focusing on specific facets of digital technology: market, culture, and so on.

- ***Snežana Samardžić-Marković** commented that in her work with refugees she realised that European public institutions are lagging behind corporate players such as Google, who are already making apps for migrants (but in doing so they are driven by a desire for profit). Refugees tend to be interested in practical solutions rather than abstract concepts, so what practical steps can be taken to facilitate cultural translation and understanding between newcomers and local populations?*

  Monika Hagedorn-Saupe shared her experience of working with Berlin's museums, where it is a common practice to have migrants with an experience of living in Germany guide fellow migrants who arrived recently. This is done in order to facilitate cultural translation. She stressed that while digital technology can help, it is not a solution in and of itself; ultimately, it is down to what use we put it to. For example, in some regions in Africa the Internet is the only window into Europe, but we need to make sure people are able to use this window to find relevant content.

  Peter Stockinger agreed that content is key and lamented the abundance of what he sees as irrelevant content offered to migrants in France as part of integration efforts. Rather than teach them French history, he argued, we should focus on practical competences such as national law and employment regulations.

  Andrew Hoskins believes that in an age of digital saturation, apps may not make much of a difference. He sees a disconnect between digital content and the response it produces. He stressed the importance of finding innovative ways of getting relevant information to stakeholders and mentioned he is working on a number of artistic projects intended to achieve that.

Panel 3 on public (cultural institutions) – private (online & ICT industries) co-operation, moderated by Raivo Ruusalepp (Estonian National Library/Tallinn University)

Zuzanna Stańska (*Moiseum*) started with introducing her background and activities. Last five years she had worked with museums on two different levels. The first is related to consultancy and providing software solutions, including: producing and designing websites, mobile apps for museums. The clients are biggest museums in Poland. The cooperation on this level has been easy-going. The only complain would be that the museums and other cultural institutions in Poland (but this happens a lot also in other countries) don't have large vision how to create digital vision, how to go digital. Museums get usually money via different grants and with the aim to make something innovative. But the problem is that museums have usually money for short-term projects. When the money is over, then project is over. As a result, there are plenty of small projects, but combining together these don't make any sense.

Second level was related to one start-up experience where they build a service – a mobile lab for museums. The aim is to present art history. They have realised that people are not aware of art history and when going to a museum they have no idea what they are looking at. In the mobile app they present a short story about the pieces. They are cooperating with European and US museums and have just presented their collection in the app. She claimed that it is actually rather hard to reach the museums although they do it all for free. The only thing they want from the museums is that they would cross-promote us. They have realised that there are two groups of institutions: 1) first ones are those who are aware of marketing potential and they want to reach the audiences around the world; 2) museums that are not aware of these kinds of possibilities – those are difficult for us to reach. The current situation is that division is 50:50.

Vincent Bonnet (European Bureau of Library Information and Documentation Associations), introduced three examples. He started with the example of Numelyo, a digital platform in public library in Lyon. There are two types of digitalisation projects: 1) traditional projects that are either on objective based where we digitise manuscripts and make them available to users or the mass digitisation projects that are developed via public-private-partnerships. 2) crowdsourcing projects which aim to collect and preserve the industry of the heritage. These are developed together with businesses and individuals in the region who can contribute via bringing their testimonies, photographs, etc. that present the memory of cooperation with these industries. He indicated to a project called 'Photographers in the region' which gathers individual or professional photographers into a database to get content into the library and get it back to the community.

The second example he described was 'Independent', which is a platform for independent artists to make them visible in the web. The aim of the project is to offer alternative to mass music platforms and to promote regional artists.

The third example he talked about was a project called 'Smart Aarhus' that is part of the network of smart cities. They recently opened a new public library – big public space. It is a library and citizens' services at the same time and creates a common platform by using the benefits of digitisation. The public library also represents the renewal of the city centre.

The library is part of the Aarhus city lab which purpose is to be a test facility for Smart City solutions and a showroom for new smart city initiatives. The City Lab will function as a playground for partners, a test facility for current and future EU initiatives and a place where Aarhus can develop its digital citizenship.

He argued that we are on the crossroad that is based on the following challenges:
1) commercial monopolies such as Google, Facebook, etc. that are taking control over our lives and therefore the rights of young generations especially need protection, 2) data protection, 3) copyright issues related to digitisation, 4) massive piracy – he brought a Sci hub which is a very big website of academic publishing completely ignoring copyright. It gives access to more than 50 million academic journal articles.

He concluded by indicating to the following changes: 1) the need to reconsider the role of libraries and what access they give to users, 2) Generation Code: born at the library that is an interactive exhibition to demonstrate how Europe's public libraries are meeting the digital age. It points out that libraries are more and more engaging computer science into the development; 3) the changing nature of the profession itself – indicating that people in computer science are similar to those working at the library.

Ott Jalakas (*Lingvist*) started with the introduction of what Lingvist is about. The aim of Lingvist.com startup is to simplify and fasten language acquisition. We use mathematics, statistics, machine learning big data, etc. to facilitate new language learning. The aim is to make learning 10 times faster than old school methods. Today almost half a million people are using our service and the users are worldwide. Largest communities are in Latin-America, Ukraine, Russia – who are learning English. We started in Estonia and now we have offices in London and in Tokyo. Chinese and Japanese markets are great interest for us.

He also gave a short overview of how the company started. The company started three years ago. The second co-founder Mait Müntel of Lingvist is the young Estonian scientist who was busy in Switzerland discovering Higgs boson. He has been been living in the French part of Switzerland for years but has not managed to learn the local language, as he did not have time to attend classes. In the evenings he created a toy for himself – an algorithm to learn French and he managed to do that with a rather short period of time. Then he met me. I have business background. And we decided to build a business out of it.

He continued with the description of what their business is all about. On the one side we take language corpuses that are available. On the other hand we take computing power to use this to speed up language acquisition. It was surprising for us that this has not been done yet. Nobody has not been put the machine learning and CPU together. And now we are changing language-learning practices.

The third thing he highlighted was that in general, the education as such is rather conservative. Curriculum tends to be rather standardised and traditional. Rather closed universe. Furthermore, especially in continental Europe it is monopolised and financed by the public sector and usually proceeding from the approach that one-size-fits-all.

He concluded by arguing that Lingvist is part of 4th generation of industrial revolution.

Aleksi Rossi (*Yle, Finnish Broadcasting Company*), started by claiming that their mission is to try to help people to educate themselves. He introduced various application programming interfaces (APIs) and the possibilities these provide. The scope includes programmes, media, images, profiles, metrics and so on. He emphasised the Yle ecosystem approach, which includes Yle video-on-demand platform and mobile catalogue. He also highlighted important external players such as Apple TV, Elisa, etc. from the private sector. He stressed the need to know how the content and the data is being used to be able to make recommendations. He also referred to wiki-data by claiming that Yle is one of the promoters of wiki-data.

Another topic he talked about was recommendations. He claimed that usually the attention is paid on the problem of bad recommendations, but companies should to pay more attention to good recommendations. He brought out their own recommendation system in Areena which is a automated system. He described the three options there: 1) based on our viewing history, 2) in packages to add to curated selections – these are groupings of some genres, and 3) for programs 'watch/listen also' – if you have watched something, then what else should you watch.

In generating recommendation they use human curation in combination with machine curated recommendations. He also pointed out that they jump from one medium to the other: e.g. from watching to reading.

He continued with talking about future plans and this is to use other peoples' data. For instance to use data that comes from libraries. They have started the discussions about these kinds of possibilities. From recommendations point of view this means that they have to recommend external sources. The key question here is how to guarantee making good recommendations.

He concluded by highlighting three overall trends. Firstly, moving from analogue anonymous broadcasting TV to digital delivery and data. Another change concerns transformation from linear TV to disruptive one. And thirdly, the transformation towards bigger diversity.

The moderator **Raivo Ruusalepp** continued with the general remark that all the presentations brought up the issue of barriers, then posed the following questions:

- *How the cultural institutions can lower these barriers and what is their role in it?*
  The panelists argued that some of the barriers are imagined, but there are real problems as well. **Ott Jalakas** brought out the cultural differences as barrier, which determine the need to build completely different interfaces for different markets.
- H*ow critical is the critical mass to provide new services?*
  Zuzanna Stańska argued that huge amount of content may also be a problem. The data is available, but people are looking for accurate content, spotlights and so on.
  Aleksi Rossi on the other hand brought out a Facebook example. He argued that there are 60 million data accounts in Facebook and one can just imagine how much data we lose and drew parallel with burning diaries.

Discussion: Small Europe – Big data: Disruptions and Diversity

Moderator **Indrek Treufeldt** introduced the discussion with posing the question is the term big data itself clear enough? **Claudia Luciani**, Director of Democratic Governance, Council of Europe, claimed that the answer is 'no' and indicated that the answer is always based on

the answers to other questions. She called for taking a critical approach that allows us to have more diversified conversations. One comment made from the audience was that it is important to highlight that big data is not just huge amount of data, but that huge of amount of data is processed and how that is done. Keeping that in mind is especially important in the context of developing digital markets on European level.

Following that, **Indrek Ibrus** introduced some of the main points recurring throughout the speeches and discussions of the day. There were altogether 14 conclusions-recommendations:

1. The policy work towards creating a common market for digital cultural goods and services needs to be balanced with work towards using culture as a tool for building identities, both national as well as European.
2. Europe needs much more public sector engagement with cultural big data in service of the common good – new institutional frameworks, function or pan- European cooperation networks need to be development.
3. Public cultural institutions need to foster the digital commons – institutions working together with the audience not only regarding the content, but also the regarding the vision for the future.
4. Right to be inscrutable – not to be predictable – should become the new policy goal.
5. Sharing best practices and creating guidelines for turning algorithms of cultural mediation transparent for users.
6. The logics, rationales and practices of international trade of cultural data and how these may affect the nature of the dominant information and cultural services need to be turned more transparent.
7. Big institutions have good capabilities to collect 'big data' and make sense out of it. Europe needs a cooperation network for public smaller memory institutions to jointly create similar capabilities in the service of the common good.
8. Big data means processing of overwhelming amounts of data, often unnecessary and resource sensitive – therefore the 'smart data' approach needs to be adopted by public institutions – data that serves the purpose and can be protected.
9. In the era of post-truth politics building trust regarding the management of data should be one of the main goals for the cultural institutions.
10. Big data analytics is also used to create news automatically – these algorithms do not only need to be transparent to the broader society, but under control of media audiences.
11. Big data analytics and related content filtering to audiences by public institutions should in the first place be about new content discovery – best practices on how to help people to discover content that may want to know, but don't know about it yet.
12. Both public and private institutions that manage cultural big data should be called to use open metadata standards and to share metadata.
13. Dominant social media platforms are also archives of personal data – their users need full access to these archives.
14. Best practices need to be sought on how the different kinds of public and private cultural institutions could work together in ways beneficial for the public good (sharing API, data for academic analysis).

Friday, September 30th

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

Keynote: Prof. Divina Frau-Meigs (University of Sorbonne)
'Unpacking the Internet of Citizens'

In her keynote, Dr. Frau-Meigs set out to outline some of the complexities, challenges and political tensions inherent in transforming the Internet into a space of civic activity.

One challenge lies in the power inequalities of Internet administration. For example, ICANN, the private corporation responsible for assigning IP addresses to devices connected to the Internet, is based in California, US and was, for most of its existence, overseen by the United States Department of Commerce. The international community has for a long time criticised this arrangement, leading the Obama administration to initiate the transfer of ICANN to a global multi-stakeholder community. The plan met with resistance in the US and had not been accomplished as of the time of the keynote. (The transition was subsequently finalised on October 1, 2016.)

In a similar vein, the root name servers of the Internet's Domain Name System (DNS), enabling the conversion of IP addresses into human-readable host names, are predominantly located in the US. Europe has only two root name servers to North America's ten, while the only other remaining server is located in Tokyo and accounts for the entirety of Asia. Again, the United States oversees disproportionate amount of global data flows.

Dr. Frau-Meigs further noted that some people wield a lot of power on the Internet without being elected for it, which does not go in line with the principles of democracy. Facebook's Mark Zuckenberg, for example, is able to make strategic decisions that affect the Web's future (for example, signing the controversial Privacy Shield data treaty which enables technology companies such as Facebook to transfer EU citizens' private data to the United States). Moreover, the web has become an increasingly oligopolic space where anti-trust regulations do not seem to hold. As a result, oligopolies such as GAFAM, the 'big five' of Google, Apple, Facebook, Amazon, and Microsoft, control much of the Internet. There are at most a handful of major search engines, major social media platforms, major digital libraries, and so on.

But that, of course, is not all there is to the Internet. Dr. Frau-Meigs has labelled the oligopoly-controlled part of the web 'the blue continent', noting that it is very difficult for a newcomer to find any space there with an alternative solution. (That said, some countries such as China have a very different 'blue' landscape occupied predominantly by local players.) Beyond that extends the 'black continent' of the Dark Web, a space of concealed data ranging from classified governmental data to exchanges inside and between extremist organisations to information pertaining to illicit activities like buying drugs and weapons. The 'black continent' is in fact much larger than the 'blue' one. Finally, there is the 'orange continent' comprising solutions and ideologies that are alternative to the 'blue continent', ranging from software like Ubuntu and Firefox to the copyleft movement.

All of these layers of data are imbued with cultural values, giving birth to the phenomenon of cultural data. But we have to be cautious of the transformations that the decreasing attention span of Internet users and the abundance of low quality content online bring about in culture at large.

Another concern is the traces that Internet users leave online. Collecting these personal data and selling them to vendors has in fact become a business model for companies such as Google. The vendors then use these data to advertise their products to users. In such an arrangement, users are the only party cut off from the revenue flow. Furthermore, the tailoring of web content according to personal data leads to the emergence of self-contained, self-reinforcing information bubbles which limit users' outlook on reality. The creation of such bubbles is driven by algorithms that lack transparency, and it is crucial that new information filters are developed and informed by public responsibility.

And yet, when discussing the Internet of things, the themes of media, culture, and education rarely mentioned in mainstream discourse.

However, stressed Dr. Frau-Meigs, tackling the above-mentioned issues necessitates a transition to a global governance of the Internet, based around the core principles of security, interoperability, openness, diversity, and neutrality. This approach is characterised by multi-stakeholderism, with each stakeholder having a different agenda and priorities (business economy, nation states, civil society, etc) but basing its relationship with the others on trust and transparency.

So how do we go about building the Internet of citizens?
Dr. Frau-Meigs quoted P. Schlesinger's remark from the day before that the Internet of citizens is 'still a slogan in search of a substantive story to tell'. What could this story be, then? This remains an open question.

The original Web was often romanticised based on the perception of its opposition to mainstream media and majority culture, yet now that the Internet omnipresent is has become part of the corporate-controlled media environment, turning into what Dr. Frau-Meigs called 'Hollyweb'. Corporate players controlling the 'Hollyweb' have been very successful at extolling their digital heroes and producing engaging but biased narratives. But the nascent Internet of citizens has its own heroes, who so far have not enjoyed the same recognition, such as Louis Pouzin, the founder of Open-Root, a fairer alternative to the existing domain name usage system. So in order to reconcile the user and the citizen, we need to harness the power of storytelling, turning it against the filter bubble, enforced tracing of personal data, against the Privacy Shield data treasy, and so on. Instead, this new story should focus on protection of privacy; data portability between platforms; equity of access; right to be forgotten; pluralism and diversity of search engines and portals; information commons and digital public domain; critical internet governance; frugality (in order to decrease CO_2 emissions, waste, etc.). Europe has a big role to play here, in the face of a reality in which much factual control over the Internet is still monopolised by one nation (USA) and the fact that non-democratic agents (such as China and Russia) are actively seeking to control more of the global digital data flows.

In conclusion, Dr. Frau-Meigs outlined her vision of the Internet of things, focusing on the establishment of the Web as a space of shared value characterised by the following features:

1. non-separation between the Internet of things and Internet of citizens;
2. portability of personal data;
3. rights of cultural workers to extract value and sustenance from content production and distribution;
4. critical Internet literacy as part of MIL (media and information literacy);
5. cultural data commons;
6. digital frugality as a criterion of evaluating digital platforms and services.

A question from the audience concerned the usefulness of the long-established concept of public service to the creation of the Internet of citizens. Dr. Frau-Meigs replied that she considers public service as one of the battles we won in the pre-digital era and believes we need to retain this victory. However, the term itself has proved problematic to use in negotiations with some stakeholders such as corporate entities like GAFAM members, who are cautious of the obligations the term implies. 'Public value' is a slight adjustment of the term which is better received by these stakeholders. Furthermore, in the US, unlike Europe, public service is dominated by the private sector, which makes it difficult to push for things such as the de-criminalisation of remixing due to oligopolic players' conflicting interests. Dr. Frau-Meigs stressed, however, that it is possible to reconcile public service with shared values in an online context, just as it is possible to reconcile the Internet of things with the Internet of citizens.

Panel 4: on the empowerment of citizens, with emphasis on participatory capabilities of different age groups, moderated by Airi-Alina Allaste (Tallinn University)

Gabriel Brezoiu (Prisma European Network and Group of the European Youth for Change) started by emphasising the role of youth participation in wider participatory culture. He also stressed that 'youth' is more a matter of identity than demographic criteria. Given how active young people are online, it is bemusing, Mr. Brezoiu said, that many organisations fail to research their online presence, perhaps due to a lack of understanding of how to go about that. Young people themselves do not always demonstrate a critical awareness of their online presence. Mr. Brezoiu cited a recent survey, according to which 48% of youth in the EU believe believed social media represents progress for democracy, while only one-third of them were concerned about the risks associated with social media.

To illustrate how these challenges can be dealt with, Mr. Brezoiu cited to case studies. The first focused on *Promoters for European Democracy*, a European Parliament-endorsed two-month programme in Romania during which 30 young people underwent extensive training and then went back to their home communities to promote democratic values. The programme proved effective, thanks to its structure of following coaching during the programme duration with peer-to-peer training and the focus on inspiration and networking.

The second example focused on an educational experiment aiming to transform Facebook into a practical learning environment. During the 12-week programme, participants were grouped in international teams and worked on real-life case studies using free online tools. The experiment emphasised learning by doing: participants were given practical tasks that helped them develop digital literacies. The tasks were measurable, and the participants' progress could be tracked through weekly rankings. Mr. Brezoiu emphasised that the entire project was run on a purely volunteer basis with zero budget.

Korioun Khatchadourian (Tumo) introduced his work at the Tumo Centre for Creative Technologies, an afterschool learning environment in Armenia where students are put in charge of their own learning process. More than 14,000 students have studied in Tumo since its establishment and around 10,000 are currently studying at there across TUMO's four centres. Tumo features a self-learning system with 4 focus areas: animation, game development, web development, and filmmaking. Students are also able to learn other digital skills as part of their learning process. The goal of all Tumo's educational programmes is to help raise a new generation of Armenians, make them aware of what is happening in the world and help them use technology to connect the past, the present, and the future.

Students come to the centre once a week to take part in personalised workshops, where each student themselves decides what to learn, in what order, and how to organise the learning process (each student has their own Tumo Path). All classes are computer-based. There are also regular learning labs featuring volunteering experts from across the world. In addition to various learning activities, the focus is on project-based learning and teamwork. At the end of the programme, students are presented with the portfolios of their works and a chart of skills they learned and activities they took part in.

Tumo's work, according to Mr. Khatchadourian, brings to the fore and proves a key educational maxim: in today's world, students need to learn to manage their own learning.

Andra Siibak (University of Tartu) discussed her research on young people's use of digital skills. She cited a survey she conducted in 2010 in which Estonian high school students were asked if they considered themselves as belonging to a 'digital generation'. One of the students replied he did not feel that was the case: as long as most young people's digital skills did not go beyond web surfing and gaming, the term itself made little sense. This statement, Dr. Siibak feels, has not lost its relevance today, as we have so far failed to nourish what could really be called a digitally literate generation – at least, in Estonia.

Dr. Siibak lamented what she perceives as a disproportionate amount of emphasis on the very basic digital literacies and skills, such as using Estonia's various e-services. Yet, she stressed, there are many more literacies and competences that digital technology has to offer, and we should put more effort into developing these skills, as well as a more critical approach to media, including an understanding of privacy concerns in the digital world and an awareness of one's audience.

Dr. Siibak noted that, when discussing digital technology with educators and young people, she senses there is still a feeling of insecurity surrounding digital literacies. Citing Prof. Sonia Livingstone's work, she argued there is still not enough active citizenship and creativity in digital environments. While indeed many national and European projects have focused on developing digital skills, the financing and, accordingly, the planning of these projects is generally very short term. But, argued Dr. Siibak, we need to start thinking long term if we are to create a true information society.

The discussion, moderated by **Airi-Alina Allaste**, touched on the following points:

- *Basic digital literacy may be seen as the first-level digital divide, but there is also a second-level divide pertaining to the actual use of digital technology for, among other things, civil activity. How do we overcome this second-level divide? Is it possible to teach people to better participate in society through social media?*

  Gabriel Brezoiu agreed that there are big digital gaps we should seek to reduce, but pointed out that in order to do so we need to understand the target groups' behaviour and online activities in order to engage them.

  Korioun Khatchadourian agreed, stating that there is a palpable digital gap in Armenia. Educational programmes undertaken in Tumo attempt to integrate the two levels of digital literacy, providing a space for both enculturation and cultural expression. He stressed that guidance, as opposed to teaching, should be the way to help people understand how to use the Internet critically.

  Andra Siibak pointed out that Internet access has not been a problem for Estonian users for a considerable time, and yet young people often lack the motivation to actively partake in civil activity online. However, the polarising issue of the refugee crisis served as a trigger for many who suddenly wanted their voice to be heard, yet they often lacked the necessary literacies to evaluate information critically and sustain a meaningful conversation on the matter. It is thus crucial to help people acquire these literacies and critical thinking so that they can have a voice.

- *How, then, do we develop critical thinking? Whose job is it?*

  Andra Siibak opined that school curricula in Estonia are too reliant on learning facts, while media literacy and critical thinking seem to be missing. It is important to have more discussion in the classroom, which the current school system does not seem to favour.

  Korioun Khatchadourian believes that critical thinking can be developed by getting children to create their own content, thus learning both how content is made and how to evaluate it. A platform for creativity could be an effective solution.

  Gabriel Brezoiu thinks the answer lies in informal education, as unlike school most activities there strongly depend on children's input and ideas. At the same time, he agreed that we need to make school more a more participatory environment which is also more relevant to children's real lives, as the discrepancy between formal education and real-life experience makes pupils lose their motivation.

Panel 5: on disruptions in the cultural work and professional careers, moderated by Indrek Treufeldt (Estonian Public Broadcasting)

David Hesmondhalgh (University of Leeds) started with bringing out four groups of peculiarities that differentiate the media, cultural and digital industries (MCDI) from other sectors:

1. Research of the last decades has shown that in MCDI sectors the job insecurity, project-based work and high reliance on social networks, but also ethnic and gender equalities, irregular working hours are rather common. He argued that digitisation intensifies these problems. These set of peculiar conditions indicate that welfare and taxation are important issues regarding MCDI.
2. The second peculiar feature of MCDI is that there are many small companies. As we know, the legal frameworks tend to recognise large companies who have resources and capacities to achieve positive action. The major developments during recent years what comes to workforce, relate to the concepts of diversity and mobility. Many of the related reports in UK refer to fair access to professions. These reports have produced some interesting statistics. They condemned a very important feature of MCDI, which is widespread use of unpaid internships. He also referred to unequal access of different ethnic groups to labour markets.
3. MCDI is centred on the forms of symbolic work that tend to be dominated by middle class people. The demands and expectations to MCDI work are high. The problem he referred to was the proletarisation of education and the domination of STEM and business-led skills approach in MCDI education.
4. Clustering effects in these industries. People in MCDI tend to value places where there are others alike or related consumption. The problem is that this often leads to culture-led gentrification effect involving private sector property developers. This again means that property and rental prices increase and drive out local workforce. This means that urban policy and planning, including housing policy is a vital way to avoid these negative trends.

To summarise, he argued that we need integrated approach to a question how to achieve better social justice in the domain of CMDI. An integrated approach should include employment law, welfare and taxation, education and urban policy and planning. There are probably more issues to consider.

Aphra Kerr (National University of Ireland, Maynooth) brought up four points related to video games and the digital games industry.

1. Games and digital games are culture and are also an industry. We do not know a lot about this industry because, as many MCDI fields it crosses several sectors, including: traditional cultural industries, but also software and technical industry. There are writers, animators, programmers, technicians and so on. It is now 100 billion dollar industry. It has also experienced disruption in the last five years: shift towards mobile, generation of new types of business models, shift in monetisation models (e.g. free downloads etc.), shift towards user generated content as games industry provides also tools to users to provide their own content (e.g. Minecraft), cross-use of different platforms, and so on.

She also pointed out the emergence of new form of cultural worker – the professional game player. She introduced the results of one survey that brought another new category of cultural worker: community manager. These are people who are multilingual, technically literate and they lose their work if the games don't do well.

2. The game industry lacks diversity: at least in US and UK the people in the industry are 80% male. The game industry is the least diversified in terms of workforce. So is this industry where people want to work in?
3. The relation of digital game industry to cultural policy has problems in some countries: is it culture or not. This means that different regulations, data protection and employment laws apply differently across game industry. For instance tax credit reduction scheme in France applies to certain part of the game industry: the content creation related to films.
4. Digitalisation: the game industry was born digital. But it is also incredibly ephemeral. Many formats that were accessible 15 years ago are not accessible today.

Eli Commins (French Ministry of Culture) talked about how to find new ways to engage audiences in the era of digital revolution. He focused on the field of performing arts.

Firstly, he pointed out that these changes indicate that the composition of needed skills and people when putting together a theatrical production has changed. Traditional distribution of roles such as writer, actors, director, cinematographer, etc. is no longer valued. For instance writing goes from print to digital, this shift is quite radical.
If the projects dive deeply into digital practices, professional transformations take place.

Second issue that accompanies with this trend is that such types of projects have more complicacy to get finances. That is for two reasons. First: these projects do not follow traditional categories. Second: most financial resources can be found there where is classical division of disciplines, e.g. publishing, literature, dance, theatre, etc. But in digital world it is not so easy to fit into these kinds of categories. Therefore it is important to put together two kinds of funding platforms: one for cross-disciplinary projects and another for digital cultural services.

Next he talked about cultural institutions themselves. These kinds of projects he mentioned involve new tools and strategies for engaging audiences. It also raises a question of ticketing policy: how much you are ready to pay when you watch the performance at home on-line. Furthermore, these types of projects change the relationship between art and audiences. The actual place of the performance is no longer a certain place. Thus, the general trend is that cultural institutions are more and more reaching out to outer world.

He ended by claiming that cultural institutions are largely blind to new forms of creations that we see online. These are not considered as cultural productions as such. He called to open new discussions what artistic production is about.

Gerfried Stocker (Ars Electronica) started with pointing out that disruption is one of the keywords. He argued that it is aggressive, violent and very destructive word. However, the question is what disruptive development is and brought out different technology developments in the last 100 years. He continued by claiming that disruption is a matter of perspective and compared it with how the rabbit changes the direction when running.

As follows he highlighted several topics and tendencies:

- Big data is not just a big database – it is completely new way how information is being processed. It also indicates that knowledge and information is power;
- Antonymous Machines and Systems – digital devices will surround us in different ways. This indicates that privacy is one of the key issues for what we should be fighting for. Clear distinction of public and private is no longer working.
- Another topical issue is public sector institutions. The public has substituted with the government, a ministry, and public institutions. This is the understanding common in Europe. In US public is understood more as functionality: if I can use it, it is public. And this opens interesting discussions related to Google, Amazon, etc. which provides information that we all use.
- Another important tendency that is happening is that people are happily giving away their rights to privacy for convenience (example of August Smart Lock).
- The next things that will significantly impact our lives are robots. The expansion of self-driving cars relates to this trend as well. He considered these are completely new types of technology that work only if we give the responsibility and decision-making to machines.

The panel discussion focused around the topics related to unsecure position of CMDI workers. **David Hesmondhalgh** claimed that as there is lack of unionisation among CMDI sectors, the consequence is that people work harder for less, and there are more less paid and unsecure workers. **Aphra Kerr** argued that in US union membership is considered as risk to company. All in all, this is very ambiguous situation we have to deal with.
Eli Commins highlighted a viewpoint of cultural policy institutions: if there is no union the cultural policy institutions often argue that they don't have the party to talk to and therefore they don't know what kinds of policies to develop. **Gerfried Stocker** added that majority of CCI workers have no social security, and the very moment they come to realise their bad situation is when they get older. He also argued that more and more companies have also recognised the opportunities hidden in CCI sector and they have increasingly started to invite creative minds in order bring innovation and solve different problems.

Panel 6: **migration and diasporas, digital citizenship, e-residency**, moderated by Ave Lauren (European Migration Network)

The panel, which brought together researchers and entrepreneurs, was dedicated to digital strategies and tools to help migrants overcome cultural barriers and facilitate their integration.

Myria Georgiou (London School of Economics and Political Science) spoke about the representations and the presence of refugees in 'digital Europe', posing the question: is 'digital Europe' a space of visibility or a space of invisibility?

Dr. Georgiou stressed the importance of mainstream press representations of refugees, but pointed out the need to investigate how 'press Europe' compares to 'digital Europe'. Paradoxically, while most refugees are digitally present and active, they are not proportionately represented there. Studying existing representations, however, can give us an insight into how Europe sees refugees.

Dr. Georgiou analysed two platforms as examples: *I Am a Refugee* and *Italy's OurMigrants.org*. Both are popular platforms for refugees. Refugees' representations there tend to mirror those in mainstream media: they are described as human agents, sharing their personal stories with an emphasis on values well familiar to Western audiences such as family and home. Conspicuously, refugees' stories are universally unpolitical, staying decidedly clear of criticising European.

By contrast, Dr. Georgiou argued, some grassroots initiatives are made on social media '*with* refugees', which attempt to bring together refugees and citizens of the respective country. Refugees are represented there as ordinary (not beatified) agents engaged in very routine acts, as vulnerable but also resilient people. Refugees and non-refugees are portrayed as engaging in acts of togetherness and solidarity, again emphasising the commonality between migrants and local citizens.

These representations are highly selective, focusing on those more perceived as vulnerable, such as children. Such stereotypical representations of migrants, Dr. Georgiou said, are often reproduced unconsciously. While such representations perhaps help us stay within our comfort zones, their proliferation can lead to adverse effects, silencing newcomers and leading us to expect conformity to these stereotypes from all migrants. The emphasis on the commonality between 'us' and 'them' opens up a possibility of mutual understanding and humanisation of refugees, but in doing so it also sets conditions for their humanisation.

Another recurrent characteristic of the digital media representation of refugees Dr. Georgiou pointed out is that they are almost universally represented as individuals, not groups. This predominance of the individual can perhaps be explained as a consequence of our discomfort at the thought of large numbers of migrants.

Dr. Georgiou concluded by stressing the importance of make the digital environment a more inclusive space for migrants, and one that represents them more faithfully.

Koen Leurs (Utrecht University) challenged some stereotypes about refugees' use of digital media. Whereas initially refugees in Europe were a largely male demographic, recently the focus has shifted to family reunification. And the notion of family has always been a crucial factor in the digital practices of these uprooted populations. Even in the 1990s, Dr. Leurs explained, asylum seekers in the Netherlands were among the earliest adopters of technology, because they needed it to stay in touch with their families. And yet, for years the notion of refugees as 'backwards' and 'technologically challenged' has persisted. Moreover, refugees' active use of technology seems to limit our compassion towards them. In the eyes of some people, Dr. Leurs lamented, people with a smartphone are not eligible for help. And yet, nine in ten households in the world have a phone, and 67% of refugees have a smart- or a mobile phone. Many are active users of the Internet and social networks, staying in touch and sharing advice through Facebook groups.

Dr. Leurs then cited the example of Jo, a hacktivist from Syria with refugee status, who used his 'arsenal' of a laptop, a smartphone, a video camera, and a voice recorder for civil activism during the early years of the Syrian revolution, but was persecuted and had to flee his country. Atypical as Jo's example may be, it highlights internal diversity within the refugee community.

While most refugees are digitally present, information precarity is still a challenge and trust remains an issue. A recent study of refugees' information retrieval priorities shows that existing family networks remain the number one information source for many, followed by government resources and then latent ties on social media (such as Facebook groups for refugees). In such an environment, misinformation easily can easily occur especially if one's social ties are limited. Dr. Leurs stressed that NGOs should increase their effort to reach and engage migrants through social media. He also pointed out that current research seems to confirm earlier theories of the digital divide, with language (e.g. English vs Arabic) and level of education acting as dividing factors, underscoring refugees' double presence 'here and there'.

He finished by underlining the need to acknowledge and look into the role of digital media with regards to the migrant crisis, suggesting that there might be another 'D' missing in 'Culture 4D': discrimination.

Moritz Beber (Metacollect) started by reminding the audience that Germany has accepted the largest number of migrants in Europe, and the response to the newcomers has largely been positive, with recent statistics suggesting that up to 10% of the country's population have engaged in refugee aid in some form. Such civil participation became necessary in part due to the state's inability to effectively provide for the refugees. A lot of this civil activity is represented digitally, but the local focus of its bulk, coupled with the decentralised nature of civil participation, have led to a situation where many similar services exist online with little mutual awareness or cooperation. Moreover, refugees themselves are often unable to locate the necessary service in this chaotic digital landscape, and many solutions have not been taken up at all. Furthermore, many solutions are not user-centred, meaning that even if a refugee does discover them, they might not be able to take advantage of them. The situation is exacerbated by the fact many refugee shelters have no Internet access or very limited access to Internet-enabled computers.

Mr. Beber then introduced a project he is working on aiming to deal with this challenge. The project is called *Metacollect*, and it is an open data infrastructure that will integrate data on current platforms and solutions for migrants in Germany. Using *Metacollect*, refugee aid initiatives can regain control over information spread about them, and anyone could use the solution to connect and discover the solution they need or can help with. *Metacollect* can thus help with information coordination and ensure that the information available both to refugees and refugee aid initiatives stays current, accurate, and relevant.

Mr. Beber also stressed that while digital solutions can be extremely helpful when their potential is harnessed, they cannot replace the human element, which is ultimately the moving force behind any refugee aid initiative. The team working on Metacollect are well aware that their project is not a cure-all but offers a possibility to empower both citizens who would like to help refugees and refugees themselves.

Mr. Beber also pointed out the existence of considerable bureaucratic barriers that refugees face after arrival to Germany, arguing that the country's bureaucracy in general is hardly transparent and accessible. In conclusion, he suggested that helping refugees may be a chance for civil society to make a push towards a more human centred bureaucracy not only for refugees but also Germans themselves.

In contrast to the previous speaker, **Priit Alamäe**'s (Nortal) contribution focused on top-down solutions. Before delving into the discussion of such solutions, he highlighted the privileged position of Estonia compared to some other European nations: on the one hand, it has had few refugees, while on the other hand, there is no 'digital problem' in the country whose government has been relying on e-services for about a decade now. Still, Estonia cannot remain a passive observer of the migrant crisis and shares a responsibility with other European countries to find ways of dealing with it. Thus Estonia faces the same question as other states in Europe: where and how can the state employ digital technology to help it deal with the challenges of the refugee crisis? Perhaps Estonia's existing experience with e-government could help outline some of the possible answers. Speaking from his experience of working in the government sector, Mr. Alamäe outlined five areas where Europe could utilise technology:

1. Border and migration control
2. Internal security
3. Getting migrants productive in the host society, engaging them in labour alongside local population (which, according to Mr. Alamäe, could reduce the risk of radicalisation)
4. Getting newcomers to accept local regulations and cultural norms
5. Solving the causes of the refugee crisis and addressing issues lying outside Europe: for example, how can technology help immediate receiving countries improve the conditions for refugees and manage the situation better?

The discussion was moderated by **Ave Lauren** (European Migration Network, Estonia) and focused on the following questions:

- *How can we earn refugees' trust?*

  Myria Georgiou lamented how often policy makers fail to consult refugees while making decisions directly concerning their lives, making refugees feel not involved in the process. Even many grassroots initiatives, for example, do not look at Muslim women's experiences and take their silence for granted.
  Moritz Beber finds the situation in Germany to be similar. He added that the lack of coordination between various initiatives results in a chaos amid which refugees are less likely to discover and take advantage of solutions that can help them.
  Priit Alamäe stressed the need to distinguish between short- and long-term goals for policy makers. In his opinion, the best way to help refugees integrate in the host society is to involve them into labour alongside the local population. He also emphasised the importance of identifying potentially dangerous migrants.
  Koen Leurs argued that refugees themselves are concerned with their image as non-productive, but the procedures allowing them to take up legal employment may take up to 18 months, which is a source of frustration for many of them. He feels we should not overlook the internal diversity of the refugee community and should not make assumptions about every refugee based on a single archetype. The problems of integration and employment, he concluded, can only be solved if simultaneously approach on both a top-down and bottom-up level.

- *How can we make asylum seeking faster and more efficient?*

  Priit Alamäe noted that, given the demographic crisis Estonia and much of Europe are going through, we need all productive force we can get. And still, bizarrely, from a bureaucratic perspective it is easier for a refugee to start a business in Estonia than to get a job. EU regulations keep refugees out of the labour market for 6 month in an effort to reduce the number of economic migrants. In this situation, starting a business could in fact be a viable option, and the 'e-Estonia' project could even help people who are physically outside out Estonia do so.
  Moritz Beber agreed that starting a business could be one possible solution, but pointed out that there are many barriers such as language and education level that make it problematic in practice. These barriers are exactly where refugees need support, but digital technologies alone may not be able to help overcome them.
  Koen Leurs stated that the regulations preventing migrants from obtaining employment within 6 months of arrival are a hurdle and need to be reconsidered.
  Myria Georgiou saw a lot of European investment into digital security on Greek islands, but that means that as soon as refugees set foot on European soil, they are judged on the basis of algorithms, which is de-humanising and problematic. She feels we need to balance these algorithms out by adding more human element into the equation.

Concluding discussion and next steps

Claudia Luciani (Director of Democratic Governance, Council of Europe) and **Ülle Talihärm** (Estonian Ministry of Culture) led the concluding discussion. They offered the following points brought up during the conference that could outline the direction of future discussion and investigation:

- Definitions of big data in cultural context;
- Consider people's cultural knowledge and skills in relation to digital skills: people need both cultural and digital skills to understand digital culture;
- Digital opportunities for the inclusion of minorities: education is key as well as the creation of different tools and providing multilingual content (e.g. for refugees);
- Right to be inscrutable: ways of protecting persona data and using data;
- Work out non-commercial alternatives for the personification of big data;
- Private-public partnerships are key for the modernisation of cultural institutions and services and should serve the public good;
- Partnerships between artists and businesses are key for culture and creativity, but carry risks: we are facing a new ecosystem, but the question is how the industry is contributing to it. Breaking down stereotypes and barriers is crucial;
- Develop the idea of a European charter on the Internet of Citizens: it needs more strength and substance;
- Critical thinking needs strengthening in media and information literacy: although it seems obvious, the question is how to nurture it and who is responsible for doing that;
- Work is needed on how to protect the labourers that participate in the global digital creative industries value chain;
- (*Addition from the audience*) The problem of the lack of unionisation in CCI / CMDI sectors and the development of labour law. The need for an integrated approach to CMCI (social security, labour law, taxation, etc.);
- (*Addition from the audience*) The issue of social justice: is the digital divide boosting or further reducing it is the question for further discussion.