Ajuntament de Barcelona

Digital Future Society

Humanism in the digital age

The urban contribution

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Critical thinking about the social impacts of technology is becoming urgent, particularly in a scenario of emerging technologies such as artificial intelligence and algorithmic automation. **Global digitalisation continues to widen the inequality gap as well as the digital divide, as digitalisation is not happening equally all over the world.**

The event explored how to build a **digital transition** that does not leave anyone behind, **protects and reinforces human rights in the digital age, and places both people and the planet at the centre of the technological deployment.**

It assembled **top-leading thinkers** and doers who discussed, identified, and addressed the challenges our societies are facing from a human-centred technological perspective, through themes such as Digital Inclusion, Ethical Artificial Intelligence and Digital Rights.

Humanism in the digital age

The urban contribution

Digital Future Society

Content

Open ceremony 6

Keynote conversation: human rights in the digital age 7

Panel: the role of cities in building an inclusive, safe and responsible digital transformation 8

Public policies against the digital divide 9

Algorithm democracy 10

Facial recognition technologies: securing responsible uses in urban environments 13

Community approach to the digital divide 15

Keynote conversation: AI in practice: ethical challenges ahead 16

Keynote: what we need to make everybody connected 17

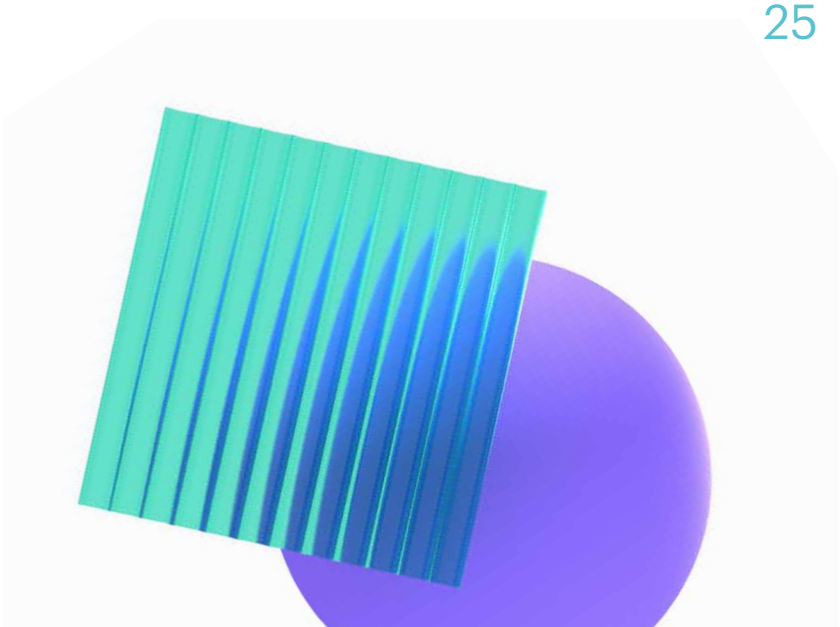
Operationalising ethics in AI: regulatory standard 18

Digital rights, data and privacy 21

Unpacking the use of ai bias: gender, race and class 22

Digital public infrastructures: data and software 24

Institutional closing 25



Humanism in the digital age

The urban contribution

OPENING CEREMONY

Cristina Colom, Director of the Digital Future Society kicked off by thanking **Carme Artigas**, Spanish Secretary of State for Digitisation and AI for her commitment to boost digital transformation in Spain and referred to the active role DFS can play in this process. She also thanked **Laia Bonet**, Deputy Mayor of Barcelona for the 2030 Agenda, the Digital Transition, and International Relations for her collaborative effort in hosting this event.

According to the Digital Future Society, the city of Barcelona is well poised to lead a human-centred approach to overcome key social challenges and foster international cooperation. Cities, which have traditionally had to deal with issues of accessibility to digital infrastructure and internet access for their citizens, now need to go further and address different dilemmas exposed by the digital emergency. Current issues such as the digital divide, the urban environment, AI, the digital green transition, and a global data governance framework bring to light the main question of how to put society at the forefront of these issues for a more just and inclusive digital transition.

Laia Bonet, Deputy Mayor of Barcelona for the 2030 Agenda, the Digital Transition, and International Relations, remarked on the ten-year anniversary of the first Smart City Expo World Congress stating that the purpose of urban technology is to improve the lives of its citizens. Barcelona aims to be a European leader in the digital transformation with human rights and social progress at the centre of innovation. She stressed the challenges ahead and called for the creation of new business models and for public administrations to rise to the challenge and invest in social impact solutions, public tech entrepreneurship and make the right policy choices. She also encouraged policymakers to foster digital inclusion to ensure equal opportunities, set up a global data governance framework to protect citizens' privacy and develop guarantees that AI will not breach human rights. Her final comments emphasised the need, in view of the recent COP 26, to see the digital transition as part of the wider environmental issue as energy consumption and decarbonisation are all factors that must be considered for a fairer digital transition.

Carme Artigas, Spanish Secretary of State for Digitisation and AI also highlighted the Smart City Expo World Congress as a watershed moment for Barcelona where the international debate surrounding digital issues from an urban perspective is now taking place. She discussed the unprecedented challenges posed by the new post-pandemic technological era which involves government, non-governmental organisations and Big Tech while also pointing to the need for fairer and more equitable public policies where technology is placed at the service of people. In this respect, she underscored the government's objective to close the digital divide by providing services and skills training. Calling for an ethical use of AI without profiling or bias so it benefits society, as a whole. Carme also underlined the necessity for better decision-making while respecting human rights.

She closed her speech by outlining the government's digitalisation plan which aims to lay the foundations of a safe environment for citizens through the Charter of Digital Rights, the Observatory for the Social Impact of Algorithms and at European level Spain's leadership in piloting the EU's regulation proposal.

KEYNOTE CONVERSATION: HUMAN RIGHTS IN THE DIGITAL AGE

Master of Ceremonies, **Pipo Serrano**, conducted a virtual interview with **Carissa Véliz**, philosopher and writer at the Institute for Ethics in AI, University of Oxford. Carissa began by discussing the current situation whereby surveillance of the internet is a constant breach of our privacy rights.

Describing how unfair discrimination can take place from a simple comment on social media, Carissa went on to explain how information can be inferred about a person's likes or dislikes, sexual orientation, or religion. Data brokers take this information and sell it on to companies. Data can therefore prove valuable, sensitive, and dangerous in the wrong hands.

Carissa views the proposal in California for people to receive data dividends from selling their data as a dangerous way of exploiting vulnerable collectives at the expense of their privacy rights. In her opinion, data is power, and it should be a collective endeavour to protect it.

At European level, Carissa explained that the Corporate Europe Observatory has reported that the tech industry lobby in Brussels is one of the biggest with Facebook, Google and Microsoft contributing a combined sum of $16.6 million. In her opinion, this figure is concerning as the more power these companies acquire through collecting people's data, the more power they will be able to exert on European institutions. Democracy and regulation are therefore crucial. GDPR was a historic achievement for the EU, but she now raises the question of how Europe will move forward and face its biggest challenge since World War II.

Carissa also compared the situation in Europe to that of the USA and China. She described how Biden has been more active in this area than his predecessor with federal privacy laws in the pipeline. However, questions remain as to how data and AI will be regulated or how cyber security standards will be established. Regarding China, Carissa highlighted the urgent need to walk away from the Chinese model of surveillance, which is currently exported to 150 countries, stating that the West should export privacy. She insists that technology is not neutral and that if we care about future generations and the need to protect ourselves, we need to stay in control.

PANEL: THE ROLE OF CITIES IN BUILDING AN INCLUSIVE, SAFE AND RESPONSIBLE DIGITAL TRANSFORMATION

Cristina Colom started with a welcome address to the panel guests: **Delphine Jamet**, Vice President in charge of Digital at Bordeaux Métropole. **Roos Vermeij** (via video link), Deputy Mayor for Economy, Districts and Small Localities, Municipality of Rotterdam and **Arnaud Ngatcha**, Deputy Mayor for International Relations and Francophonie, Municipality of Paris, in which she discussed the use of technology to address urban challenges and ensure inclusive digitalisation and equitable growth as envisaged by the UN 2030 Agenda.

Laia Bonet opened the discussion by asking the panellists how they have dealt with the post-COVID-19 recovery in their respective cities and what the role of digitalisation has been in this process. **Delphine Jamet** explained that a digital inclusion observatory has been set up in Bordeaux to gain a deeper understanding of the issues of digital inclusion and obtain hard data following the pandemic. Other projects include the recruitment of 48 digital councillors through the national "France Relance" recovery plan, the Sésame digital space and helping people living in low-income neighbourhoods to set up an email address. When asked how cities can be more inclusive, **Delphine** explained how the Bordeaux Metropolitan area has created a common digital department whereby budgets and human resources are shared. Digital councillors have designed a future common strategy on digital inclusion, cybersecurity, broadband connectivity, and data governance as the first step towards improving policies.

Roos Vermeij explained that inclusion and the digital transformation are important issues for local government in Rotterdam and stressed the right to verified information. During the COVID crisis, local governments reached out to SMEs in smaller districts and offered them the digital tools to prepare themselves for the new digital era.

Asked how cities can place people at the centre of digitalisation, **Arnaud Ngatcha** commented that in Paris local authorities have a responsibility to protect citizens' data, regulate, inform, and develop a secure digital environment. Paris provides access to subsidies, cultural and sports information via a digital service. Through his contact with local authorities, he has seen that the digitalisation process is well underway in France.

Laia Bonet also referred to the Eurocities programme and the need to build a progressive digital agenda for Europe and invited **Roos Vermeij** to add her views. She stated that Europe needs to consider its 120 million citizens whose voices should be heard as well as local authorities. Roos' closing comments focused on Rotterdam's main aims of digital inclusion and preparing citizens for the local jobs of tomorrow. **Delphine Jamet** highlighted the need to make technology 'useful, usable and used' and **Arnaud Ngatcha** referred to inclusiveness, humanism, and ethics. **Laia**'s closed the session with a call for bold, digital inclusion policies for which EU funds are required.

PUBLIC POLICIES AGAINST THE DIGITAL DIVIDE

Carina Lopes, Head of the Digital Future Society Think Tank, kicked off this session by asking the speakers how governments can mitigate the challenges of digital inclusion/exclusion through public policies and how the pandemic has affected the digital divide in their respective cities.

Morten Meyerhoff, EGOV Advisor, UNU-EGOV, described the issues involved in measuring global digital inclusion. Global KPIs are collected from national statistical agencies which are of little value for policymakers at a regional or even local level. Furthermore, very few KPIs are related to user segments. In a study of 300 KPIs only 10 were related to segmented data. With a global figure of 2 billion people who cannot identify themselves legally when 80% of countries require a form of ID to own a pay-as-you-go phone, exclusion is a reality.

Morten proposes a federated public-private approach to improving the data on digital exclusion by asking telecommunication companies to register more user segments such as gender, region, city, age group when users sign up for a service. He also advocates registering whether the type of IP address is public, private, or educational. Through heat mapping, this would allow cities to see which communities are being excluded and put the appropriate policies in place.

In his opinion, the pandemic has accelerated existing divides resulting in a boost for those who already had access and a stagnation for those who didn't.

Lucia Velasco, ONTSI Director, discussed the three main challenges related to digitalisation in Spain: the first is the disparity between perceived connectivity and real connection speed, which can greatly affect the user's ability to develop themselves in the digital sphere. She also raised the issue of affordability as a better connection comes at a higher cost. In this respect, Lucia advocates a quality connection that is affordable for all.

Secondly, Lucia explained the need for public administrations to take the user experience into account when developing digital public services. Pushing the population towards digitalisation when there is a lack of connectivity, data or affordability will only produce adverse effects.

Finally, she discussed the lack of available data to measure digital skills. For instance, there is little data available on how the under 16s or the over 74s use the digital sphere; 50% of disabled persons have difficulties to connect; 38% of users lack confidence in digital skills and 20% of children from low-income families do not have access to a computer. Regional differences and gender divide also show disparities in digital skills and connectivity. She concluded by stating that there is a lack of segmentation data in our systems which is needed to build public policies.

John Paul Farmer, Chief Technology Officer for New York City, explained how they met the challenges of digital inclusion with a main focus on digital poverty. In January 2020, the NYC Internet Master Plan blueprint was launched for the 8.5 million residents of New York City. At the time, 1.5 million residents from low-income neighbourhoods had no home or mobile broadband access. When the pandemic hit, the city launched an emergency response and responded to the needs of its citizens by rolling out devices to children and seniors and installing free broadband in public housing,

However, there was still a need to transform the marketplace. They took the first step by installing affordable broadband in public housing developments around the city. This year they have scaled up with government agencies joining forces and an investment of $157 million to

set up an open-access neutral-host fibre which will reach the homes of 1.6 New York residents in the short term, offer subsidised broadband coverage to 250,000 New Yorkers by early 2022 and free or low-cost broadband for 100,000 residents in boroughs such as Brooklyn and the Bronx over the next few months. Lauded as a 'game changer' and praised by the White House as a model to follow in other US cities, John concluded his speech saying that the key lies in not only tackling one aspect of inclusion but various factors at the same time.

Michael Donaldson, Chief Technology Officer of Barcelona City Council, started off by stating that the digital divide has been exacerbated by the pandemic. A survey, which was carried out to understand the impact of lockdown on the use of the internet, revealed that around 5,000 families in Barcelona had no access to the internet. Further inequalities such as the quality of devices in the home increased according to whether a person lived in a high- or low-income neighbourhood. There was also a lower uptake to the vaccination programme in low-income neighbourhoods as registration took place online.

As a result, the Barcelona City Council has set up three key actions including the deployment of 11 IT agents to help citizens access the internet and digital public services; the public network of Fab Labs which empowers citizens to learn and innovate with technology and finally a pilot project in collaboration with telecoms companies, NGO's and 40 institutions to provide 400 low-income families with devices, access, and digital skills training. The aim is to scale up to the rest of the population affected by the digital divide.

Carina closed the session by asking panelist how to ensure that no one is left behind. **Morten**'s focus is on affordability and quality of internet by changing licensing policies, offering free access to public IP addresses, rolling out devices and better usability design. **Lucia** pointed to improving data collection and analysis while **John** emphasised the need to combine initiatives in infrastructure and affordability. **Michael** commented on the need for internet access to be considered a fundamental right.

ALGORITHM DEMOCRACY

Carles Planas, Tech Journalist from El Periódico opened the session by inviting the panel to discuss the risks and opportunities of AI systems.

Nerea Luis, Artificial Intelligence Lead at Sngular, started by discussing the current and future challenges of AI from a technical perspective. She stated that AI is not 'conscious' of the decisions it takes or who it might affect and that the coding of these systems is purely mathematical. However, the use of historical data in AI has highlighted that it is not representative of society and called for a shift in how we collect this data. She also raised the issue of ethics and described the need for 'AI explainability' in terms of its design and usability to help people understand how these systems work, with the aim of promoting more transparency and trust. She also called on the important role of Europe in creating a more open framework.

Gemma Galdón, CEO and Founder of ETICAS, described society's misconception during the 80s and 90s that technology would bring us equality by becoming more than a tool to reflect social dynamics in algorithmic processes. Today the resulting infrastructure is one dominated by private interests, a lack of regulation or knowledge of how it works. We have discovered that technology reflects the dynamics of an unequal society affected by gender, age, ability, race, origin, and status biases, which have been incorporated into data used to feed AI systems. She also described the impunity and lack of regulation of the tech sector where billionaire 'tech bros' influence public policy and parliaments have lost the power to control the narrative. In this context, she calls for algorithms to no longer be at the disposal of the few, more transparency for more accountability and more investment in the collection of data. She concluded her presentation by stating that cities need to address these strategic issues as well as create new infrastructure for an algorithmic democracy where there is democracy in algorithms rather than a dictatorship.

Raquel Jorge Ricart, Policy Analyst – Technology, Digital and Cyber Policy at the Elcano Royal Institute, gave a brief summary of AI governance from different perspectives. On a global level the issue of algorithmic governance is being limited to ad hoc coalitions mainly composed of G7 countries without taking into account the Global South. In her view, the private sector is the most active in the democratisation of algorithms by creating ethical code on an internal level which they use to make agreements. There is a growing narrative within international organisations to use AI for positive purposes, such as the UN's AI FOR GOOD. However, she stated that there remains a need for AI 'explainability' and communication mechanisms to enable collaboration between governments, entities, organisations, NGO's, and civil society. She concluded her presentation with a call for a transversal approach to democratising all technology.

Andrea G. Rodríguez, Lead Researcher at CIDOB, started by visually representing the path to technological humanism through active citizen participation and the protection of digital rights by government at local level. "Cities have what other political actors do not: a system to identify people's values and a platform to discuss them without the weight of geopolitics and national interests." She cites 'Decidim 'as well as other tools for bilateral communication but also stated the lack of national political interest which has slowed these initiatives. She went on to describe the work carried out by CIDOB in collaboration with the Global Observatory of Urban Artificial Intelligence (GOUAI). Their study on ethical frameworks revealed a clear lack of communication between interest groups and a different understanding of the principles. The resulting GOUAI framework of minimal ethical principles for the creation of urban public policy relating to AI includes algorithmic justice, data protection, environmental sustainability, accountability, transparency, security and cybersecurity.

Humanism in the digital age

The urban contribution

FACIAL RECOGNITION TECHNOLOGIES: SECURING RESPONSIBLE USES IN URBAN ENVIRONMENTS

Moderator **Melissa Heikkilä**, AI correspondent at Politico Europe, invited **Sarah Chander**, Senior Policy Advisor at the European Digital Rights Initiative to explain why she has been lobbying the EU to ban facial recognition technology.

Sarah explained that this type of technology is being used in schools, supermarkets and at the borders for identification purposes but also to make predictions. The privacy question is raised when we consider how this information is being used. A study has shown that the Italian government commissioned facial recognition technology in 2017 to be used in public demonstrations. Sarah also raised the issue of how this type of technology is being used in the surveillance of minority groups. For instance, in Germany, live facial recognition systems have been set up in gay areas and around Mosques. According to Sarah, these types of actions increasingly equate some minority groups, which are already overwatched, with a further need for surveillance.

Melissa then asked **Amos Toh**, Senior Researcher on AI at Human Rights Watch to comment on his research into the use of AI in US public services. He described the case of a gig worker who tried to submit an application for state benefits but was denied as the facial verification software refused to confirm a match with the applicant's driver's licence. The outsourcing of both the application and appeal process led to the applicant losing out on her right to benefits. Amos explained that there are over 20 US states using the same type of platform with many reports of people being unable to access benefits.

Melissa moved on to inviting the third panellist, **Brando Benifei**, MEP and Rapporteur on the AI Act to comment on the European Commission's AI Act which limits the use of facial recognition software in public spaces except in the cases of terrorism. **Brando** believes the European Parliament should take a clear stand and ban AI technology without exceptions. In the current text, there is room for interpretation by a judiciary within a certain political climate. He would also like to see the proposal amended to include more employer and worker representation as there are many situations of AI being used in the workplace without employee knowledge.

Asked whether terrorism prevention would be affected by a total ban of AI software, **Brando** called it an ideological argument unsupported by facts and that there are greater threats from AI such as the use of social scoring by public administrations.

Moving onto facial recognition software, **Sarah** recommended banning this type of technology which has the single purpose of punishment. She believes funds could be redirected into non-tech solutions to improve social inequality and poverty for the most vulnerable groups. **Amos** explained how several US cities and states including San Francisco, Oakland, California, and Portland have already introduced different types of bans on facial recognition software.

Digital Future Society

Commenting on the regulation proposal, **Sarah** believes the EU needs to elevate the human rights protection aspect of the proposal in the same way as GDPR had human rights at its core. **Brando** replied by stating that AI is a single market regulation and although it may not set a standard like GDPR he believes the EU proposal will spark an international discussion about AI and the way forward.

In answer to **Melissa**'s question about making AI more ethical **Amos** recommended involving beneficiaries and frontline workers of public services in the design of AI systems. **Brando** then discussed the need to establish a trust-based environment. A current debate at EU level is whether to deploy a self-certification with every high-risk use of AI to protect fundamental rights. **Sarah** recommended obliging the deployer of a high-risk technology to carry out an impact assessment on human rights and cited this as an example of good policymaking.

COMMUNITY APPROACH TO THE DIGITAL DIVIDE

Thais Ruiz de Alda, Founder and CEO of Digital Fems opened the session by asking the panel experts to present their solutions to the digital divide. **Liliana Arroyo**, Researcher and Lecturer at ESADE, referred to "Automating Inequality" by Virginia Eubanks, highlighting the need to look at what is being optimised by automation and cited the example of AI surveillance of vulnerable welfare groups in the Netherlands. She also described how the digital divide was addressed in Barcelona during the vaccination campaign in June 2021. Data revealed that twice as many people had been vaccinated in the higher-income neighbourhood of Sarrià-Sant Gervasi district compared to the central district of Ciutat-Vella. Community research revealed that the digital divide was the largest barrier to vaccination (20%) due to usability. She explained that analogue support was provided to address this issue which supports her argument that services do not necessarily have to be 100% online and can be accompanied by human support. She also called for people and rights to be put at the centre of a co-created and universal design with algorithms 'in the loop' to reduce workload and improve efficiency.

Judit Batayé, Director of Catalunya TECH friendly, provided examples of how to build a community digital transition. She started with the context of the pandemic where inequalities in health, technology, economy, society, and environment became more evident. TECH friendly joined Covid Warriors to work on the ConectemosYa project to help Spanish students study online. Their research revealed the three main issues of the digital divide as connectivity, devices, and skills. By working with schools, parents' associations, teachers, families, educational entities, telecoms operators, public and private entities, they created an OpenLab, a collaborative framework with diagnostic tools and guides to reduce the digital divide in education. This has led to 'sandbox' initiatives in Málaga, Mataró, and the Conectem project in Barcelona. She also provided examples of urban laboratories such as Coboi Lab, Ateneus de Fabricació, initiatives by the Ajuntament de Sant Feliu de Llobregat and finally recommended Labdoo, which is a citizen initiative for transparency and transversality.

Ramon Roca, President of Guifi.net Foundation, works to provide connectivity to rural areas and stated that it is cheaper to install fiber in a house every 3 kilometres than provide water and electricity to the same homes. However, it is not lucrative enough for companies. He called for existing infrastructure such as motorways, high speed train networks, wind turbines and high voltage pylons to be managed more effectively to connect rural areas and said that although being consulted at European level on this issue, progress is still slow. **Thais** supported this information with data that connectivity in villages in Spain of under 10,000 habitants is only 30%, which means that remote working is not the panacea it appears to be. **Ramon** also described the negative urban impact of fiber façade boxes and called for more regulation on this issue.

David Franquesa, CEO of Usody and Co-Director of e-Reuse, provided a solution to closing the digital divide through the creation of sustainable circuits of reuse. He explained three reasons why reuse should be promoted over recycling: financial (no raw material costs to recover), environmental (zero impact), the digital divide (a reused device costs 50 to 100 euros to recondition whereas a new device would cost 5-10 times more.) He gave the example of the Agencia d'Ecologia Urbana, Covid Warriors and Fundesplai who distributed 30 devices to a public school for the total cost of 60 euros. On a national scale, and since 2017, 10,000 devices have been reused which has saved 2,000 tons of CO^2.

KEYNOTE CONVERSATION: AI IN PRACTICE: ETHICAL CHALLENGES AHEAD

In an online interview with **Pipo Serrano**, **Núria Oliver**, Chief Data Scientist of the Data-Pop Alliance described how the USA and Asia are the two regions currently leading the way in AI technology in terms of research, innovation, and the deployment of AI in society. She calls for the EU to have vision, ambition and execute.

Quoting Stephen Hawking on whether AI could be either the best or the worst thing to happen to society, Núria stressed the importance of working together to reverse the negative connotations AI has received in popular culture. She argued that AI can be part of the solution to the challenges we face such as the climate emergency, pandemic, or ageing population. She recognises that AI can have a positive social impact to tackle the 17 SDGs, and this is what motivates her work.

However, she also recognises that AI needs regulation. Asked whether it is possible to code AI in an ethical way she highlighted the need for AI to respect equity, non-discrimination, privacy and preserve human autonomy.

Pipo concluded the interview by asking Núria about the lack of gender diversity in the computing field and specifically in AI. She calls the situation worrying as currently only 12-15% of computing students are women: a figure that has been in decline since the 1980s as a result of stereotyping, brogrammer culture and a lack of female role models. She calls for the need to inspire the next generation to study this field as any sector which lacks diversity will fail to realise its potential.

KEYNOTE: WHAT WE NEED TO MAKE EVERYBODY CONNECTED

Sonia Jorge, Executive Director for the Alliance for Affordable Internet, kicked off her Keynote speech saying that `we need to understand the consequences of what we do not know'. More than 50% of the world is not connected resulting in major inequalities and exclusion, mainly in the global south. Rurality, low-quality connections, and the gender gap are also dimensions of the digital divide which pose the greatest challenges.

According to Sonia, men are 52% more likely to be online in least developed countries than women. The cost of this exclusion of women and girls in the digital divide has been calculated at a loss of $1 trillion in GDP worldwide. The investment required to bring more people online through infrastructure, quality of connectivity, skills training, and policy before 2030 is $428 billion which she compared to annual global spending on soda.

Another issue is affordability and a meaningful connection. Based on the UN affordability target for the world, 1GB of data should represent 2% of a person's monthly income. However, Sonia claims the issue goes deeper than affordability and should include the quality of connection to allow citizens to have daily access[1]. Sonia advocates meaningful connectivity whereby a person has the sufficient connection speed, a suitable smart device, a daily connection, and sufficient data from their place of work or study to facilitate a meaningful use of the internet.

She also proposes public-private partnerships in areas which the private sector considers commercially unviable as well as changes to the current licensing framework to allow for small to medium internet providers such as civil society organisations, cooperatives, community networks or government.

Sonia concluded her speech with an A4AI analysis which shows that the world is 20 years behind the 2030 SDG in terms of internet access. She called for political will, proactiveness and the need to enshrine meaningful access in digital policy from the design of broadband plans and licensing frameworks to education, health, finance, and agriculture.

[1] Currently the world measures an internet user as someone being able to connect once every 3 months.

OPERATIONALISING ETHICS IN AI: REGULATORY STANDARD

Opened by the moderator, **Maria Celia Fernández Aller**, Professor of Social, Ethical and Legal Issues at the Technical University of Madrid, this session started with a video address from **Werner Stengg**, Member of the Cabinet of Executive Vice-President Margrethe Vestager at the European Commission in which he discussed the policy to develop AI that is human-centred, trustworthy, and safe.
Using a framework of four categories, uses of AI are classified according to risk. AI which has the greatest impact on citizens' lives will be subject to the strictest rules such as using AI to filter job or university applications. Deployers of AI will also be subject to strict obligations which include feeding the systems with quality AI data, explaining how the system works, sharing information with the users and adherence to cyber security standards. The banned category of AI includes the use of subliminal techniques, social scoring apps and remote biometric identification in public areas, except for extreme cases such as searching for a missing child or terrorist. He believes the current regulatory framework will foster trust with those who carry out research in AI, commercialise it and use it.

Agustí Cerrillo, Professor of Administrative Law at the UOC, described three main difficulties governments come up against when using AI: the technical and legal opacity of algorithms as well as organisational issues. For instance, if a government uses AI systems without knowing what data is used to make decisions and how those decisions are made, they will be unable to identify algorithmic errors leading to bias and discrimination. According to Agustí, transparency should therefore be considered as a principle for trustworthy AI as well as an ethical and legal principle with regulatory framework on which to base AI software. However, due to the limitations of traditional transparency tools new proposals and obligations are required such as the European Commission's proposal, the Charter of Digital Rights, better auditing, and certification processes as well as new governance bodies to oversee transparency. He closed his speech with a quote from the European Commission[2], concluding that opacity risks must be regulated, and transparency tools must guarantee a high level of information.

Renata Ávila, CEO of the Open Knowledge Foundation, advocated a different approach to AI by fostering involvement in AI development from citizens at a local level to help shape policy instead of waiting for legislation to arrive from Brussels. She suggests open public interest AI software, with procurement systems at local level, participatory processes to build connections with local citizens, data trusts, ethically and locally sourced engineers and data with measurable checks. She also believes AI deployers should have insurance to quantify the potential harm of AI so that citizens have a means of redress. In her opinion, transparency is not enough and hyper-local policy initiatives or 'Slow AI' would consider a broader positive AI agenda.

Maria Celia Fernández Aller believes the EU proposal regulation to be risk-based rather than human rights-based and that many of the principles such as transparency must be given more visibility.

[2] 'Given how fast AI is evolving the regulatory framework must leave room to cater for further developments. Any changes should be limited to clearly identify problems for which a feasible solution should exist.' European Commission, 2020.

Humanism in the digital age

The urban contribution

Humanism in the digital age

The urban contribution

Understanding urban realities to address digital divides

DIGITAL RIGHTS, DATA AND PRIVACY

Jordi Vaquer, from the Open Society Foundations, opened the session by inviting the panel to offer their insights into the risks and opportunities associated with the collection of data.

Simon Chignard, Expert on data governance at UIA and Senior lecturer at Sciences Po, started by commenting on the growing concern among users in Europe of how personal data is used. This is combined with 'digital resignation', whereby people feel unable to exercise control over organisations and platforms which manage their data.

He moved on to discussing the perception of trust when it comes to local government. In a 2018 Open Data Institute survey on who people trust with their personal data, local government ranked in third place (35%) above central government (31%) and social media companies (7%). On this issue he recommended going beyond the smart city approach and giving citizens more participation in data governance. He provided examples of seven initiatives taking place in Europe. These include: developing data sharing at the local level, data charters, local support ecosystems, open source tools and clouds and networks. He closed his presentation with a Michael Bloomberg quote, 'Nations talk, cities act?'.

Gianluca Misuraca, Team Leader and Key expert on AI Diplomacy & Strategic Communication at InTouchAI.eu, began by stating that AI powered systems are an integral part of many high-impact government decisions including the mainstream use of ADMS to provide social welfare benefits, often with a lack of quality data and poor algorithmic accuracy. The impact of Covid-19 exacerbated the risks of these systems as governments scrambled to redirect resources to carry out administrative tasks and deliver public services. He raised the issue of how to govern AI while governing with and by AI. He also proposed building a shared approach on human centred AI with a framework for ethics and trust, supporting joint initiatives, multi-lateral cooperation on a local and international level as well as research into the global development of responsible and sustainable AI.

Belén Santa Cruz, Cabinet Advisor for the Secretary of State for Digitalisation and Artificial Intelligence explained that there are three key issues to address in the challenges of digitalisation: digital sovereignty in the data economy and AI, a human-centred digitalisation, and the need to adapt and update regulations. She summarised the objectives of the new Spanish Charter of Digital Rights which aims to reinforce rights, increase people's confidence in technology and generate certainty in these new circumstances with five main categories of rights including freedom, quality, participation, AI and neurotechnology rights, judicial and administration protection in digital environments. She concluded by stating that data is the main asset for digital transformation and an opportunity for a fair and competitive digital economy with shared European values and principles.

Jordi then asked the speakers how cities can begin the process of setting data standards. **Simon** explained that cities should focus on their own local ecosystem to identify the main actors and the main issues. Secondly, he recommends the use of open systems with the collaboration of civil society. **Belén** talked about the need to work with the private sector (big tech and SMEs), universities and institutions to increase access to data by citizens and mentioned the creation of the 'Oficina del Dato' and GAIA-X.

Asked how the EU can engage in this arena, **Gianluca** stated that the EU sometimes lacks the impetus to move from the idea to the market and a profound restructure of governance aspects is required. **Belén** called for strategies to be updated every year to keep up with the advances of AI.

UNPACKING THE USE OF AI BIAS: GENDER, RACE AND CLASS

Olivia Blanchard, Researcher at the Digital Future Society Think Tank, opened the session by asking panellists to discuss the risks and challenges of algorithms and automated decision-making systems in the private and public sectors and the link with bias and discrimination.

Ricardo Baeza-Yates, Research Director at the Institute for Experiential AI, Northeastern University explained that there is a misconception that bias is always negative. He explained that problems arise when we do not question whether a bias is neutral or fair. When bias is amplified this can create an impact which can lead to discrimination. He recommended consulting the incidentdatabase.ai which has already registered over 1000 cases, the majority of which are related to racial discrimination. He also cited global examples of discrimination in, gender, religion, social class, and welfare noting that the child benefits scandal in the Netherlands in January 2021 was the biggest case to date involving an algorithm. Referring to the concept introduced by Daniel Kahneman of 'noise' he posed the question in a legal context of whether society would prefer an algorithm where everyone receives the same outcome or a 'noisy' judge whose decision may be affected by the political climate. In his closing comments, he referred to Daniel Kahneman's book called 'Noise' and recommended the film 'Coded Bias' for further discussion on this topic.

Anne Kaun, Researcher and lecturer at Södertorn University, focused her speech on how public administrations are using algorithms and automated systems in digital welfare provision. Faced with decreasing resources and increasing needs from an ageing population, technology is seen as a key way to improve efficiency and delegate standard operational tasks. However, the public is now becoming increasingly aware of how automation can lead to discrimination especially when this technology is being used with vulnerable groups. Referring to Virginia Eubanks' book on "Automating Inequality", she argued that a broader perspective on the implications of automated systems needs to take into account how the relationship between the citizen and public administration is changing. Interacting with civil servants is 'noisy' but it adds an element of trust which is important when looking at the issue of digitalising welfare provision.

Cecilio Angulo, Full professor at the UPC, referred to bias from a differing point of view stating that bias is inherent to AI, regardless of whether it is negative or positive and it is discriminatory. He stated that it is also a question of human interpretation.

Judith Membrives i Llorens, Digital Transformation, Tech Sovereignty and AI Advocacy at Lafede.cat and Assistant lecturer at the UOC, introduced 3 key issues from a civil society perspective. The first of these is the use of techno-solutionism in public administration. She argued that algorithms identify patterns but are unable to interpret particularities or context. The second issue relates to how civil society organisations have largely been ignored in the public discussion over automated systems which is generally dominated by the private sector. Finally, she explains that there is a lack of information on what processes are chosen to be automated, with what data and how algorithmic injustice affects human rights referring to the Design Justice Network and Data Justice Lab. Closing her speech, she called for the involvement of all stakeholders in the development of automated systems which should be orientated to the defence of human rights.

Olivia asked the panel if public registers could be used as a tool for knowledge sharing and lessons learned. **Ricardo** believes that registers and auditing would be unnecessary if all stakeholders were involved in the development of the software. **Anne** talked about the Data Justice Lab which has set up a register of cancelled automated systems. She stated that investigating why they were cancelled is a way of adding transparency to the financing and development of these systems. **Ricardo** added a further comment stating it is possible to learn more from the systems that failed than the ones that succeeded. **Judith** believes that registers could become one of the tools for mapping systems, but they are not the only solution.

Anne called for a new definition of AI and automated systems to reduce their complexity in the eyes of citizens as they are the ones who must live with the consequences. She also mentioned the current debate in Sweden over the question of whether a source code should be considered a product or be subject to public record.

Ricardo responded to a question from Olivia regarding quality control and auditing algorithmic processes as something unfeasible in the long term due to scale and would prefer a self-certification of the process. **Anne** talked of a proposal to set up a Swedish ombudsman which would oversee public registers and where citizens could find redress. Both **Judith** and **Cecilio** questioned the auditing processes in terms of the metrics that would be used stating that fairness and justice cannot be considered metrics. **Ricardo** added that in Spain the newly created *Oficina del Dato* should oversee algorithmic surveillance.

In **Judith**'s closing comments she suggested the creation of a new narrative where people are put at the centre of the decision. According to **Cecilio**, we are now looking at society in terms of technology. However, the problem is not technology but rather social issues. **Anne** echoed this statement saying that a lot of the issues that have been discussed are related to larger societal questions of which technology is one of them. **Ricardo** closed the panel by urging the audience to train themselves to notice bias in their daily lives.

DIGITAL PUBLIC INFRASTRUCTURES: DATA AND SOFTWARE

Federico Ruiz, Head of Spain's 5G National Observatory, Mobile World Capital opened the panel by posing three questions to the experts regarding the current situation of digital infrastructure in cities, how to restore trust with citizens and what the future holds.

Simona Levi, Co-founder of Xnet, proposed the design of new open-source architecture for governance which should be distributed in such a way that it reaches every citizen. Trust would be implicit through transparency as citizens would be involved in the whole process thereby protecting our fundamental rights. She stated that currently 92% of data is not managed by European institutions, which makes auditing impossible. She explained that this sends the wrong message about digitalisation and recommends an auditable code as well as disintermediation. She cited the joint pilot project with the Ajuntament de Barcelona, which aims to apply the highest standards of privacy to education with usability at its core.

Marc Perez Batlle, Innovation Manager at Barcelona City Council, talked about the legal regulation stipulated in Royal Decree 4/2010 to create administrative digital infrastructure, which can be applied to different sectors and developed for each specialisation. He described the pilot project in conjunction with Xnet and five schools in Barcelona which aims to produce a suite of open-source software including Moodle, Wordpress, Nextcloud, BigBlueButton and puts usability and simplicity at its core. The project includes guided support for teachers and families in the migration from a private to public suite for schools and a DPO protocol for the school management team. In terms of hardware the project looked for suppliers that comply with regulatory and ethical standards. In response to a later question from **Federico**, he says the future lies in the co-design of new auditable and open-source spaces of participation between civil society, entities, and other public sectors.

Jackson Morgan, founder and consultant for O.team explained the difficulties associated with different interfaces and cited the example of his New York Covid passport not being accepted in San Francisco or in Europe. He stated that software integration is long-term and expensive with investment in this area expected to reach $1 trillion by the end of the decade. He talked about how Solid, led by Sir Tim Berners-Lee, defines a standardised interface for accessing data between different systems. He later explained that people will use Solid not only for privacy reasons but also usability as it will give them complete control over their data.

Javier Creus, Founder of Ideas for Change, cofounder of SALUSCOOP, talked about the systemic vision for opportunities to regenerate trust and purpose through decentralised architecture such as Solid or edge computing. He stated the need for a new framework for collective data governance including public data trusts, personal data stores, data coops, public-private data trusts in a future model based on a public-private-citizen partnership. He cited the example of a recently launched SalusCoop app, which aimed to find out what information citizens would consent to provide when addressing different health issues . The results showed that, in 87% of the cases,citizens would consent to giving their data. This is an example of success in regenerating trust through citizen collaboration and actors such as the MWC, the Generalitat, and five different health institutes.

In response to **Federico**'s question of how administrations can restore citizens' trust, **Simona** said that transparency and cooperation are the basis of promoting trust. On this issue, **Javier** believes we need to go further in participation and involve the inclusion of more institutions and collectives such as SalusCoop. **Federico** summed up the session as the need for more cooperation in the design of new institutions for the digital society of the future with humanism at its core.

INSTITUTIONAL CLOSING

Michael Donaldson, Barcelona's CTO, extended his thanks to the organisers, speakers, attendees of the congress. He concluded by stating that there is no digital innovation without digital inclusion which is why ethics, AI, digital rights, data and privacy and the digital divide all form part of the public administration's guarantee when promoting public services for its citizens.

Carles Grau, CEO of Mobile World Capital, referred to the efforts to position Barcelona as the capital of digital humanism and an open lab for innovation. The digital emergency has highlighted a clear impact on our citizens and there are urgent challenges to be addressed such as the digital divide, what data is collected and how it is disposed of ethics behind AI design, AI deployment and management. He stated that the answer lies in strong alliances, a call for action and a firm commitment to move forward in a collaborative way to achieve a shared goal of a society which is just, equal, and sustainable.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