New technologies and the society
Empowering digital public entrepreneurship and collective intelligence

In the workshop "New technologies and the society" we explored the future of government and the modern state and how new technologies can improve public services, facilitate transparent and efficient interaction, and drive better citizen outcomes. This synopsis suggests three areas of reform in which the emergence of new technologies may (i) promote trust in government, (ii) enhance inclusion and social cohesion, whilst (iii) ensuring privacy, data security and mitigation of the digital divide. In particular, the discussions of the workshop pointed towards building up digital skills across government and citizen involvement in public sector innovation.

The impact of Covid-19: revealing the potential of new tech & the deficiencies in the public sector

The benefits of new technologies have been of major prominence in the public debate during the Covid-19 pandemic. New technologies have proven to be a useful and effective tool in shaping the public health response. Digital contact tracing, coordinating responses, and disseminating information quickly and accurately has helped local and regional governments to effectively control and mitigate the spread of the virus. At the same time, tracing apps have highlighted the importance of robust

> **"The pandemic made it even more obvious how important a robust digital infrastructure is, not just for the private sector, but also for the public sector."**
>
> **- Laura Dornheim**

data protection in increasing the population's acceptance for digital public services. The virus has changed the way governments approach challenges in public health and other areas of public services, with potential long-term ramifications.

A powerful vision of digital technology, particularly artificial intelligence, can empower citizens and foster social cohesion, transparency, and trust in state institutions. Several innovative regional governments in the United States started to use chatbots with virtual agents to help provide citizens with answers and information about the virus. The German Department of Labour (*Bundesagentur für Arbeit*) has automated a variety of processes and decisions to reduce the workload of employees and offer responsive, user-driven public services.

Yet, we have also seen that there is a vast potential for improvement. During the pandemic, many public services remained inaccessible for citizens because many still require the physical presence of citizens (e.g. when renewing passports or getting other important government documents). In Germany and many other European countries, it has become clear that primary and secondary schools remain stuck in an offline past lacking the equipment and know-how of digital technologies.

Thinking ahead.

Digital public entrepreneurs: meeting the demands of a fast-changing society and economy

"The role of skills and the role of training is the most fundamental thing we can do to change that big picture."

- Beth Simone Noveck

The digital transformation is changing how people communicate and collaborate, and is thus enhancing citizens' expectations towards public service efficiency. It impacts current job roles and drives the demand for a broader set of skills. To meet the complex requirements of the new world, an important building block is therefore digital skill acquisition and training for citizens, as well as for public servants.

"Our democracies urgently need to produce citizens, especially public servants, who can move from demanding change to making it."

- Beth Simone Noveck

Investing in the deployment of digital skills can catalyze the growth and success of businesses but also improve public service delivery. Additionally, this may contribute to greater acceptance of electronic government strategies, digital inclusion, and greater societal benefit from technological advancement.

The German government emphasizes the importance of digital skills and literacy through training courses and the creation of a new digital academy (*Digitalakademie* as part of the Federal Academy of Public Administration). Moreover, it has launched a digital pact for schools (*DigitalPakt Schule*), providing five billion Euro for digital equipment at schools. Although the funds are urgently needed to support children's digital competence and make better use of digital technologies for teaching and learning, only a fraction of the available funds has actually been utilized. Bureaucratic application procedures hinder the modernisation of education institutions, which is inadequate for times where the threat of a forced return to homeschooling is omnipresent.

Apart from public service modernization, governments at national and EU level are in the process of designing stimuli packages and public investments at an unprecedented scale. As short-term measures, they aim at stabilizing the economy and the labour market (e.g. lower value added tax or furlough schemes). Yet, focusing on long-term investments in research and development of new technologies to spur innovation, growth and productivity will be fundamental in transforming our post-Covid-19 economy into a fair and low-carbon economy (see **"New technologies and the economy"** wokshop). Here, skilled digital public entrepreneurs need to think beyond public services and have the vision to harness new technologies to create the conditions of a technological revolution, which has the combination of economic and social value at its heart.

Creating an environment for public innovation by harnessing collective intelligence

New technologies have a significant impact on the labour market and the type of skills needed in the economy and society. However, supporting the development of new digital skills to public servants and the population is not enough.

"We need to create a culture of digitalisation within the European society."

- Markus Richter

Without creating an environment for innovation in which people are able to use these skills in a meaningful way, our societies will not be able to unlock the full potential of digitalisation.

During the Covid-19 pandemic, the "social economy" has played a major role in addressing and mitigating the impacts of the crisis. By providing innovative solutions aimed at strengthening public services to complement government action, social economy actors have assisted the recovery from the crisis[1]. Novel organising practices and methods such as Designathons, Hackathons and Bar Camps connect innovators, partners, and buyers to develop innovative solutions to societal questions. They not only produce viable and useful technical solutions, but also empower thousands of citizens to take action, learn, and create alongside others.

A much-quoted example is the "Corona Makers" group in Spain which brought more than 17,000 members to collectively work on the means of how to support doctors, policemen, and people working during the quarantine in Spain[2]. Supported by the **Barcelona City Council** and the city's "fab labs" – digital fabrication laboratories – the maker community developed innovative solutions to problems encountered by essential workers on the frontlines of the Covid-19 pandemic. Using rapid manufacturing processes like 3D printing, they were quickly capable of meeting the needs on the ground.

"More of us, especially in government, need to be able to take an initiative from idea to reality. That's going to require taking advantage of technology, of data, and above all, of the collective intelligence of our communities to allow us to do good."

- Beth Simone Noveck

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1. OECD (Organisation for Economic Cooperation and Development) (2020): Social economy and the Covid-19 crisis: current and future roles. OECD Policy Responses to Coronavirus (Covid-19). Available from: https://www.oecd.org/coronavirus/policy-responses/social-economy-and-the-covid-19-crisis-current-and-future-roles-f904b89f/
2. World Economic Forum (2020). Coronavirus Makers. Available from: https://www.weforum.org/projects/coronavirus-makers

Demos Helsinki has worked with the city of Helsinki to create a model for employee-driven innovation. It helped to accelerate the development and piloting of ideas and creation of solutions by citizens and employees by sharing resources, experiences, and know-how. This grassroots approach serves to increase acceptance at a societal level. The processes and results are openly shared and actively communicated which further promotes trust and transparency within the government and city of Helsinki.

Empowering the public to innovate

While the above-mentioned examples illustrate how technology can promote citizen-participation in public problem solving, they also highlight the barriers faced by a significant segment of the population when dealing with new technologies. Important concerns that prevent people from using online governmental technologies are digital security and privacy issues. Others may resist because of a lack of digital access or poor/absent broadband connection. Governments need to overcome such obstacles to capture the full benefits of new technologies and digital government.

"We've got so many public services which we have to digitalise but many of them address people who are not so close to IT or digital solutions. We have to find a way to address them and to get them involved – also in the decision-making processes."

- Markus Richter

Digital public services can increase access to information, improve coordination between governmental services and citizens, and thus deliver lower transaction costs. This can increase the quality of life for citizens in particular low-income groups, the elderly, and rural communities. However, governments need to reassure their citizens that they are safeguarding their personal data, provide efficient public services, and ensure digital improvements benefit vulnerable groups of society.

Conclusion

Digitalising public services helps governments to meet increasing public expectation and to become more efficient and resilient – even in times of a lockdown and social distancing. New technologies offer the opportunity to significantly increase administrative productivity, free up and therefore re-direct scarce public resources, and serve to make our societies more equitable and sustainable. This in turn has the potential to increase citizens' trust and confidence in government, improve the government-to-citizen relationship, and foster social cohesion.

The unique conditions during the first wave of the Covid-19 pandemic and the pressing need for innovation allowed many local actors to overcome normal barriers and get things done more quickly. However, harnessing the innovation potential of new technologies to achieve meaningful progress should not be restricted to times of crisis. Our societies need continuous efforts to provide new and innovative governance approaches to address the long-term challenges of social and economic transformation.

Governments must set standards to best utilize information technology and create an environment for cutting-edge innovation. In this process, several actors must collaborate to rethink and co-create technological innovation by deliberative and democratic means: digital, public and "mission-orientated" entrepreneurs, together with the private sector, civil society and academia.

Our speakers:

Prof. Dr. Beth Simone Noveck
New Jersey's Chief Innovation Officer, member of Germany's Digital Council, director of the Governance Lab and author of "Smart Citizens, Smarter State"

Dr. Markus Richter
State Secretary at the Federal Ministry of the Interior, Building and Community and Federal Government Commissioner for Information Technology

Dr. Laura Dornheim
Digital strategist and activist (chair)

Ossi Korhonen
Consultant, Demos Helsinki

Isabella Longo
Project Manager (Bi Habitat), Barcelona City Council

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About the workshop series

The online workshop "New Technologies and the society – New governance, institutions, and social cohesion" was the second in a series of three workshops in the **#Tech4Society innovation series**.

Das Progressive Zentrum

is an independent, non-profit think tank founded in 2007, devoted to establishing new networks of progressive actors from different backgrounds and promoting active and effective policies for economic and social progress. It involves especially next generation German and European innovative thinkers and decision-makers in the debates. Its thematic priorities are situated within the three programmes Future of Democracy, Economic and Social Transformation and International Dialogue, with a particular focus on European integration and the transatlantic partnership. The organisation is based in Berlin and also operates in many European countries as well as in the United States.

Thinking ahead.