

European AI Fund Tech & Covid Grants

Themes, insights and recommendations

As the pandemic unfolded, it became evident that the use of technology in response to Covid would have implications for generations to come. The European AI Fund wanted to ensure that, at this moment of profound transformation, civil society could advocate for the public interest. Beginning in February 2021, the European AI Fund funded six organisations to monitor, analyse and challenge Europe's tech response to the pandemic.

The [Ada Lovelace Institute](#) researched the ethical, societal and human rights arguments around vaccination certificates and immunity passports and proposed a six point roadmap for "a vaccine passport system that delivers societal benefit". They advocated for a pause on the roll-out of initiatives until an evidence based, publicly debated, ethical and sustainable approach to vaccine certification could be established that would not further exacerbate the disproportionate impact of the crisis on the most vulnerable.

[AlgorithmWatch](#)'s Tracing the Tracers project created a digital platform to continuously monitor and analyse automated decision-making (ADM) systems used in response to the Covid-19 pandemic in Europe (and beyond). They highlighted the plethora of devices, tools and solutions tested and adopted despite an absence of evidence of their effectiveness, and often with insufficient democratic debate.

The [Balkan Investigate Reporting Network \(BIRN\)](#) supported 10 reporters through its Digital Rights Programme for Journalists, established a Covid-19 Crisis Tech Response Live feed to highlight digital abuses and published a comprehensive report on digital rights in the region, with a particular focus on the rise of far right and hate speech online and content removal.

[Tilburg University's Global Data Justice Project](#) explored technology-led and market-driven 'Sector Transgressions', analysing how companies from the defence, intelligence and security sectors have pivoted to find new applications in areas such as health and education.

The [Civil Liberties Union for Europe \(Liberties\)](#) conducted comprehensive research on how different European contact tracing apps work, what kind of data they collect and process, how efficient these apps are, how transparently they operate, and how the apps can worsen existing social problems.

[Superr Lab](#) examined the conceptualization, development and deployment of digital public infrastructure in the fight against Covid, paying special attention to the role of digital civil society. They published a Covid Infrastructure Playbook to help civil society organisations and governments navigate the ongoing digital transformation, aware of the risks and opportunities and with public interest in mind.

A full list of publications from the projects is available at the end of this report.

Common themes, insights and recommendations

Deployment of technologies without evidence that they work

From the start, the pandemic was characterised by a blizzard of data: infection numbers, R rates and, sadly, deaths from Covid. In this context, data driven technologies appeared to be a potentially effective means of responding to the virus. But the Tech and Covid grantees identified that technological approaches were often deployed, and then sustained, without any substantive evidence about their effectiveness - or even despite evidence to the contrary.

Contact tracing apps, introduced across European countries early in the pandemic were one of the most high profile technologies that promised to limit the spread of infection. Liberties' research noted these apps were launched with little prior research on their potential efficacy and without much opportunity for public scrutiny into the risks they might carry. Liberties emphasises that it is "not that digital contact tracing technology does not and cannot work well enough to justify quarantine orders. Our point instead is that governments did not have the necessary data showing that the technology works reliably enough to justify confinement orders based on digital contact tracing technology." Likewise, the Ada Lovelace Institute found that vaccine passports, which entail significant ethical and human rights impacts, were being initiated without evidence that they were effective in limiting the spread of infection.

Even after deployment, there has been very little evaluation into which technologies have proved effective by the authorities that commissioned them. Liberties' research found that contact tracing apps most likely had a negligible impact on the spread of the pandemic, in part due to the low uptake and usage by the public and note "[European Union] Member State governments must keep in mind that it is not possible to give a purely technological fix to social emergencies. Technologies always operate in social contexts".

AlgorithmWatch found some isolated examples of the effective use of automated decision making and algorithmic systems, for example algorithms used to distribute and/or assign leftover doses of vaccine in countries such as Germany, France, Estonia, and the US may have avoided wasting vaccines by providing better, more efficient systems to match bookings and availabilities in real time. But they noted the much-hyped use of AI in medical diagnosis of Covid appeared unfounded, quoting Michael Roberts' review of more than 300 papers on machine learning techniques which found "none of them produced tools that would be good enough to use in a clinical setting" and that they often introduced significant biases with the data collection method, the development of the machine-learning system or the analysis of the results.

The deployment of technology that is at best ineffective, or at worst harmful, is symptomatic of a techno solutionist approach by many European governments. As the WHO, cited by Algorithmwatch, points out this can result in an "overestimation of the benefits and dismissal of the challenges and problems that new technologies such as AI may introduce," producing "unbalanced health-care policies and misguided investments," while at the same time diverting "attention and resources from proven but underfunded interventions that would reduce morbidity and mortality."

Liberties' findings on the deployment of contact tracing apps could be applied to the use of technologies in the pandemic more widely:

Member States chose to keep operating contact tracing apps silently, hoping that people will simply forget how digital contact tracing technology failed to fulfil the dreams their governments actively cultivated. Such conduct is against the principles of good governance. It is against the principle of efficiency and effectiveness, for without impact assessments Member States cannot know whether they make the most of the resources available. It is against the principle of accountability, for public officials are trying to avoid taking responsibility for the failure of the contact tracing apps. It is against the principle of openness and transparency, for Member States do not communicate about the reasons for letting the idea of digital contact tracing fade away. Member States should conduct research on why the technology and/or its implementations failed, communicate the findings, correct the mistakes if they are worth correcting and if not, retire the apps.

Recommendations:

A common call from the grantees' work is for future deployments to only be undertaken on a sound evidence base. As Algorithmwatch recommends, "Show us the evidence! Future ADM deployments must be evidence-based, transparent, clearly limited in scope and duration, and more democratically discussed. This will help remove abusive systems and make the most of those which promote public health." Liberties also calls for impact assessments on technologies post deployment. The Ada Lovelace provides detailed recommendations on the pre-conditions for the introduction of vaccine passports, including setting scientific preconditions for the level of infection reduction that would be acceptable to permit their use, modelling and testing the behavioural impacts of different passport schemes, comparing vaccine passport schemes to alternative public health measures in terms of necessity, benefits, risks and costs and developing and testing public communications around a scheme. These recommendations could also be applied more broadly to the deployment of other technologies in a public health context.

Lack of policy guidance and safeguards for the introduction of technologies

Alongside, and possibly exacerbating the willingness to adopt technologies without evidence of their impact, grantees' research found that processes to safeguard the procurement and deployment of tech either did not exist or were abandoned as part of the emergency response. Technology interventions were often introduced without democratic deliberation and then subjected to little scrutiny.

The Global Data Justice project found some governments used emergency powers to issue ad-hoc regulations to implement technological solutions offered by companies and thereby avoided democratic controls, public procurement or the data protection regulations. Many governments were offered technological solutions without charge meaning tech companies often avoided public procurement requirements altogether.

Liberties highlighted the lack of transparency around contact tracing apps. Although a number of countries eventually published the source codes of their apps and made data protection impact assessments available, many of them did so months after launching the apps, and some never. In a

number of cases data controllers did not consult the data protection authorities before launching the app.

While most European Union Member States eventually launched privacy-protecting ‘decentralized’ contact tracing apps (that do not share personal data with authorities), this was not due to democratic safeguards. Instead, during the race to develop and deploy effective contact tracing solutions in the early stages of the pandemic, Google and Apple joined forces to create a privacy-sensitive technical protocol. The Global Data Justice Project points out that the monopoly position of Google and Apple in controlling smart phone operating systems made them “de facto governors of global public health infrastructure. The companies were able to translate their market power and technical superiority in smartphone software to gain leverage and influence in the domain of public health, where they lack both epidemiological expertise and moral authority”. So while privacy defenders may have cheered the outcome, an important democratic function had been lost.

Algorithmwatch also found deficits in governance, particularly from the EU which “failed to properly govern important developments throughout the pandemic. EU guidelines and principles were needed and were welcomed when — as in the case of digital contact tracing apps and digital COVID certificates — they arrived”.

Many of the projects also note that there was little involvement of the public in the deployment of new technologies. The Ada Lovelace Institute includes public legitimacy as one of its six checkpoints for a vaccine passport system. Superrr observes that involving civil society early on in the process is helpful to build public confidence in technology and raise potential pitfalls for trust and usability. And Liberties found that the failure to consider the social context of contact tracing apps resulted in limited take up of the technology and consequently reduced effectiveness in infection control.

Recommendations

Technologies should only be deployed in line with clear legal and policy guidance and after consultation with the public. In relation to vaccine passports, the Ada Lovelace Institute calls for “ethical consideration and clear legal guidance about permitted and restricted uses, and mechanisms to support rights and redress and tackle illegal use” and for rapid as well as ongoing public deliberation on systems, particularly involving groups with particular interests or concerns.

Algorithmwatch warns the pandemic “must not be treated as an excuse to normalize vague and undefined exceptions to principles of EU law and international human rights law in relation to the use of ADM systems, such as necessity, proportionality, data minimization, privacy, respect of human rights, fairness, and equity.”

The Global Data Justice Lab identifies a wider challenge to regulate the colonising of public infrastructure by tech corporations. It calls on civil society to work to create “both public awareness and, through it, potentially political will to regulate both particular technology interventions and infrastructural power more broadly.”

Normalisation of invasive technologies

Research from the grantees found a decrease in public sensitivity to what would previously have been considered privacy invasive technologies.

The Ada Lovelace Institute noted that “the introduction of vaccine passports has the potential to pave the way to normalising individualised health risk scoring, and could be open to scope creep post-pandemic, including more intrusive data collection or a wider sharing of health information” and warned of the potential that “tools introduced for pandemic containment could be repurposed against marginalised groups or for repressive purposes.” Likewise, Algorithmwatch found that the pandemic “was exploited as an excuse to further entrench and normalise the surveillance, monitoring, measuring, and prediction of an increasing number of daily activities — now essentially including public and personal health purposes”. This extended well beyond the immediate infection control response, for example introducing the widespread use of automated monitoring in the workplace as well as in education. Global Data Justice points out how this has enabled companies to transgress sectors and introduce surveillance architecture built for one purpose into another field.

Researchers raised concerns about instances where data collected for public health purposes was then used in other domains, such as criminal investigations. But Liberties noted that “more than a year into the pandemic in Europe the scenario most rights-defenders feared of (governmental mass surveillance of the majority of the European population through their mobile phones) has not materialised. Contact tracing apps were not used for mass surveillance, the apps introduced to fight the pandemic (with the exception of some quarantine apps) have not become mandatory to use and users’ data has not been (mis)used by governments to harass opponents and critics.”

Recommendations

As well as calling for impact assessments for vaccine passports, the Ada Lovelace Institute recommends governments should issue design principles for developers that include data minimisation, openness, ethics by design and privacy. Algorithmwatch calls for a post pandemic return to normal where mass surveillance remains banned from societies.

Capture of public infrastructure by private companies

The Global Data Justice Lab warns that a focus on privacy has failed to address a wider phenomenon. Their research documents how tech firms have strategised to move into the health, education, security, transportation, payments and identity sectors during the pandemic.

Using the concept of ‘sector transgressions’ they chart the involvement of commercial actors in spaces where their business models, practices and ethics are misaligned with established actors, leading to increasing infrastructural power and undermining accountability for the provision of public goods.

They emphasise that “this is not a privacy problem: it implicates other public goods such as self-determination, political engagement, health, education and knowledge, and ultimately the notion of publicness itself - the capacity and resilience of the public sector in relation to tasks and services that address vulnerabilities and basic needs, and therefore necessitate democratic accountability.” In fact, they argue the tech sector has used the privacy debate as a distraction “strategically to draw public attention away from the rapid expansion of the presence and power of technology firms in all areas of public and private life”.

They analyse how security technologies have been deployed in new areas and how digitisation has led to reliance on privately owned cloud infrastructure that “puts technology firms not only in control of our public policy, workplaces and homes, but in a position to charge what they wish for that dominance, or to make the functionality we rely on disappear by changing their business models.”

Superrr meanwhile explored why public authorities did not draw more deeply on civil society expertise during the pandemic and instead defaulted to engaging private sector companies. They found that the impact of digital infrastructure on society, whether through data protection, usability or the availability of digital services, was given little attention. Civil society had a lot to offer – for example, developing free and open source software, connecting forgotten communities like refugees or residents of retirement homes, or creating data dashboards – but these skills were not integrated into public authorities’ responses. Instead, civil society was forced mainly to take on a watchdog role, condemning the deficiencies of the digital approaches that had been adopted.

They highlight that involving civil society in the early stages of planning and adopting new technologies can surface potential impacts on society, improve the usability of products and instill greater public trust in the outcomes. However, public authorities are not currently well connected with civil society and channels for engagement need to be established.

Recommendations

The Global Data Justice Lab advocates a “strategy of ‘naming, blaming and claiming’: define instances where firms have transgressed sectoral or public norms, explore how to frame accountability for the problems we see, and seek to inform civil society, regulators and policymakers about what kinds of new strategies are necessary in response to these transgressions, and how to connect problems to modes of claim and redress.”

Superrr recommends public administrations build and maintain regular communication with digital civil society and better understand what civil society can offer, rather than treating them in the same way as commercial actors.

Increased vulnerability to broader digital harms

The Balkan Investigate Reporting Network (BIRN) explored how digitisation more broadly had exposed people in the region to digital rights abuses.

They found increased time online has exacerbated trends for misinformation and online abuse. The spread of fake news, distorted facts and the enduring appeal of conspiracy theories among the public

was widespread within all monitored countries. In particular, the flow of Covid-19 misinformation shows no sign of slowing, with conspiracy theories around 5G and vaccines being widely shared.

Funding in a pandemic

The European AI Fund issued the Tech and Covid grants at a time when civil society's voice was greatly needed, but when civil society organisations themselves were under extreme stress.

Our partners faced an overwhelming volume of issues to deal with and struggled to keep across fast paced developments. They were operating in a space of continual uncertainty, where it was often difficult to judge the likely arc and duration of the pandemic.

Organisations were not only researching the pandemic but living it. Teams suffered absence through illness as well as the burden of home working and often combining work and caring responsibilities. Travel restrictions also limited capacity for advocacy – organisations found interpersonal relations created pre-Covid were extremely valuable but could not be replaced by online activities.

Despite the circumstances, organisations reported tangible success in shifting policy. For example the Ada Lovelace secured a change in the narrative around vaccine passports and introduced much greater caution to the UK policy approach, which had previously been largely unopposed. Superrr has also seen some of its recommendations adopted in the coalition agreement of the new German government and civil society partners report using the Infrastructure Playbook to support engagement with public administrations.

Partners also achieved good media coverage for their work. BIRN's stories on digital rights were widely read, both on its own platforms and in translation in media across the region. Liberties' and Algorithmwatch's research was covered by numerous media outlets while the Global Data Justice Lab research has been picked up by Nature and is being discussed at a number of academic and civil society conferences.

The European AI Fund aimed to support collaboration across the grantees, organising monthly cohort calls and an event to showcase the research. These suffered from organisational and technical difficulties but were largely welcomed by partners as a way of information sharing and learning about one another's work.

Lessons learned

Flexibility has been vital – both in face of the changing nature of the debate and towards the operational difficulties civil society organisations encountered because of the pandemic. Both we as a funder and our grantee partners have been adapting to new ways of operating but clarity of communication and empathy for our common challenges have enabled a trusting relationship.

Conclusion

The creation of the Tech and Covid grants was a timely contribution to enabling civil society to engage in understanding and shaping the technological response to the pandemic. Although we were only able to offer fairly limited resources, organisations have been able to conduct valuable work, including identifying and addressing the absence of evidence, providing targeted policy engagement to specific approaches to using technology, and identifying significant shifts generated by the pandemic in how technologies shape our societies. Their work has engaged policymakers and the wider public and created recognition for the importance of considering the societal impacts of technologies, at a time of perpetual emergency and against the background of a multitude of competing demands.

One of the challenges of this programme has been the shifting time horizon. When launched it seemed plausible that the pandemic would be a moment in time, after which a post-pandemic ‘new normal’ would be established. Instead people have lurched from one wave of infection and lockdown to another. As we asked at our event for grantees, “When does a pandemic end?”.

As the work of this programme shows, many of the technologies introduced in response to the pandemic are here to stay. And perhaps as importantly, so potentially are the policies, practices and norms that accompany them. Funders must also recognise that the pandemic is not a closed book. Having initiated work, it is necessary to build on what has been learned for the long term so that the findings from the pandemic are integrated into our wider missions to shape society for the public good.

Outputs

Ada Lovelace Institute

Checkpoints for Vaccine Passports

<https://www.adalovelaceinstitute.org/report/checkpoints-for-vaccine-passports/>

Algorithmwatch

Tracing the tracers

<https://algorithmwatch.org/en/tracing-the-tracers/2021-report/>

BIRN

Call to Lynch: The War of Words Threatening Montenegro’s Delicate Balance

<https://balkaninsight.com/2021/08/02/call-to-lynch-the-war-of-words-threatening-montenegros-delicate-balance/>

Delete Profile: Online Abuse of Kosovo Women Costing Democracy

<https://balkaninsight.com/2021/08/25/delete-profile-online-abuse-of-kosovo-women-costing-democracy/>

Playing War: Pitfalls and Potential of Video Games in the Balkans

<https://balkaninsight.com/2021/09/01/playing-war-pitfalls-and-potential-of-video-games-in-the-balkans/>

In Central Europe, Concern over Toll, Fairness of Amazon Algorithms

<https://balkaninsight.com/2021/09/13/in-central-europe-concern-over-toll-fairness-of-amazon-algorithms/>

In 'Echo-Chambers' of Nationalist Romanian Party, Russia's Favourite Narratives

<https://balkaninsight.com/2021/10/08/in-echo-chambers-of-nationalist-romanian-party-russias-favourite-narratives/>

'Someone's Daughter': Unpunished Revenge Porn's Terrifying Toll in the Balkans

<https://balkaninsight.com/2021/10/18/someones-daughter-unpunished-revenge-porns-terrifying-toll-in-the-balkans/>

Data Dominance: In Cyprus, a Chinese Outpost inside the EU

<https://balkaninsight.com/2021/12/07/data-dominance-in-cyprus-a-chinese-outpost-inside-the-eu/>

Gatekeeping Greece: Allegations of Facebook Bias

<https://balkaninsight.com/2021/12/23/gatekeeping-greece-allegations-of-facebook-bias/>

Cracking COVID: The Balance between Public Health and Private Data

<https://balkaninsight.com/2021/12/30/cracking-covid-the-balance-between-public-health-and-private-data/>

Data Dealing: Oversight Concerns in Hungary Over AI Data

<https://balkaninsight.com/2022/01/25/data-dealing-oversight-concerns-in-hungary-over-ai-data/>

Global Data Justice Lab

Digital Disruption or Crisis Capitalism

<https://globaldatajustice.org/gdj/2649/>

Liberties

COVID-19 Technology in the EU: A Bittersweet Victory for Human Rights?

https://dq4n3btxmr8c9.cloudfront.net/files/c-5f-T/Liberties_Research_EU_Covid19_Tracing_Apps.pdf

Do EU Governments Continue To Operate Contact Tracing Apps Illegitimately?

https://dg4n3btxmr8c9.cloudfront.net/files/Nv4A36/DO_EU_GOVERNMENTS_CONTINUE_TO_OPERATE_CONTACT_TRACING_APPS_ILLEGITIMATELY.pdf

COVID-19 Contact Tracing Apps in the EU: Lessons from Germany

https://dg4n3btxmr8c9.cloudfront.net/files/XKDH18/COVID_19_Contact_Tracing_Apps_in_the_EU_Lessons_from_Germany.pdf

Superrr

Covid-19 Infrastructure playbook

https://superrr.net/assets/downloads/COVID-19-Infrastructure-Playbook_EN.pdf