DEMOCRACY AND THE COVID-19 PANDEMIC: A NEW ROLE FOR DIGITAL TECHNOLOGIES

Report on the debate organised by Digital Enlightenment Forum on 13 Oct. 2020

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Moderator

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Keynote speaker:
Martin Wolf (Chief Economic Commentator, Financial Times**),**
Speakers:
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Nuria Oliver (Chief Data Scientist, DataPop Alliance),
Wieslaw Bartkowski (Faculty of Arts and Social Sciences, SWPS University, Co-founder of Creative Coding),
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Highlights

‘We are living through a multitude of global crises that might be a turning point for society—and the choices that we make will deeply shape and transform our collective future.

‘The way that we use, abuse or regulate our technologies in this process will indicate if we are to go further towards putting in place totalitarian regimes, or towards reinforcing our democratic processes.’

Martin Wolf
Democracy Will Fail If We Do Not Think Like Citizens

This crisis started way before COVID-19 and had created a democratic depression. What caused this are the inevitabilities of economic forces such as de-industrialisation and globalisation, but also some deliberate policy choices of rent extraction, creating a large population feeling abandoned (a precariat[*]). This is a poor basis of stable families and communities—who increasingly give their support to autocratic leaders. Decision makers did not deal with this at all, while during the financial crisis citizens experienced how banks were saved but not the people. The financial crisis and some policy choices left little room of manoeuvre to support the populations and confront the climate crisis.

What can be done about it? We need to widely support installing the Four Freedoms (1941) as articulated by the most influential democratic politician of the 20th century, Franklin D. Roosevelt, and to update and rectify them where needed. Until today, the global community has grossly failed to do so, but cannot fail doing this anymore.

We were very bad in not seeing this [democratic depression] coming, because we were not sufficiently aware of the fragility of the legitimacy of the underpinnings of our system.

If we make the same mistakes with the transition caused by the digital transformation of our economies and societies, as our great-grandparents did after the major transformation of the 19th century that was followed by a communist revolution and two world wars, it will be the end of our society. We have to find another way.

[We should be] very concerned about the powers of the [global technology] platforms and the meaning of national sovereignty as those companies now know so much more about citizens. What does ‘national sovereignty’ mean in an era when firms yield more power over citizens then their elected governments?

Most important question for us now is how the world is to regulate the companies of two countries [USA and CHINA] operating globally? Only the Chinees have been able to do this, but we do not want to follow their methods. This is a major geopolitical problem with major implications for sovereignty.

[*] A social class formed by people suffering from precarity: a condition of existence without predictability or security, affecting material or psychological welfare.

Tom Gerald Daly
Democracy and COVID-19 Worldwide: Digital Threats and Solutions

The democratic and the digital are becoming ever more inextricable. This symbiosis can, and has, led to increase in citizen surveillance without consent, a rise in disinformation and the spread of conspiracy theories.

However, digital technologies are sometimes also used to reinforce the democratic process, putting power into the hands of the people, and allowing grassroots activist movements to grow and gain influence at an unprecedentedly fast pace. Digital technologies are weaponised on both sides of the arguments.

Elections, democratic institutions and media have been revolutionised by the heightened importance of digital communication. Digital activism could be one of the most promising outcomes of the technological shift that COVID-19 induced.

Two worlds have collided, the totalitarian and the democratic.

Social media companies cannot regulate themselves. Freedom is not the absence of regulation but the right kind of regulation.

Nuria Oliver
Lessons Learned About Participation, Privacy and Contact Tracing

In the spread of infectious disease, human participation is inevitable. Thus, we become both the agents and subjects of the pandemic. Yet, until today citizens have been given very little agency in contributing to its response.

Data and evidence are vital in understanding not simply how effective certain measures are in stopping the spread of COVID-19, but also how they are affecting different populations. Data and technologies are critical in a crisis; this will not happen automatically and must be guided.

As a result of the state of turmoil we are in, only 50% of people believe hospitals are safe environments, and only 32% of people believe this of schools; half of the population state they cannot self-isolate if they are to do so. Thus, the institutions that governments are trying so hard to support are becoming less and less trusted by their citizens.

Public administrations are not yet digital and need to be; they do not know what data are, nor how to capture data systematically while also understanding the limitations of the data. There is now a narrow window for public authorities to get it right and learn from this new reality. We need a Call to action for all citizens to contribute to social change that enable real progress, with the help of technologies. We also need better regulation and should invest in education and lifelong learning , we have to transform the education systems and public administrations.

Wieslaw Bartkowski
Towards Healthy Digital Technology

Technology is not ethically neutral. Ethics do not simply come into play depending on use: technology carries the values of its creator. These values are mostly driven by corporate capitalism. These values are then embedded into the technology's operating system and, as a result, heavily impact the decisions made with the help of such technology.

Every form of digitisation can be a form of reduction. Digitisation allows for a reduction of complexity, thereby allowing us to observe and analyse far more efficiently. However, this can also mean a reduction of people's thinking to numbers and calculations and fast thinking, while losing what it is that makes us inherently human. What is really human about us is exactly what is not in technologies - and this is the value we need to protect.

Democratise using a bottom-up approach to produce the technologies and bring artists and creative citizens on board in the process. [Give] Power to the people that think differently.

Seda F. Gürses
Privacy by Design as Infrastructural Power

Seda played a role in developing a privacy-preserving design for contact tracing technology, called DP3T. This is the design behind Google Apple Exposure Notification (GAEN). Initially, DP3T designers assumed that governments and civil societies would have a say in the app's deployment, and all that entails.

Google and Apple became key players in the process especially when the apps became integrated into the functionality of Apple's operating system and into a native Android app. This is where they leveraged their power to build unprecedentedly direct relationships with governments and health authorities across the world.

The dangers of technological production should be considered as important as its use. The phones are produced using raw materials that often cause both human and environmental harm. Factory working conditions and raw material extraction techniques contribute towards human and environmental exploitation. Thus, whose health are we promoting? What claims to democracy and citizenship can we make when this means our citizenship comes at the cost of others' lives?

Again, it is imperative that we do not allow tech companies to dictate democracy in terms of their corporate interests, and that we begin to reconsider the human cost of the infrastructure they propagate.

Executive Summary

Through discussion we have determined that digital technology can be an extremely powerful tool for democratic action in the time of COVID-19. However, such technology must be created with democracy in mind, as well as used with democratic intention. If our democratic values, institutions, and processes are to emerge unscathed, it will be, in large part, due to how we have wielded technological forces during this time. This global challenge could herald a new era of digital democracy, but only if we actively challenge the discrepancies between the digital and the democratic. Each speaker has provided important perspectives and examples that we can use to inform our new approach to technology, with democratic values at the forefront of the debate.

Some highlights that we can draw from the debate include:

The need to think as citizens: We must remember to hold our institutions to account and question our collective dedication to democratic processes and institutions. Digital technology must be held to the same standards, and no longer considered separate from other institutions more traditionally relied upon to serve us democratically. Our citizenship is crucial to our role in the democratic process, and digital technologies must protect and empower such citizenship.

Democratic freedom in terms of regulation- Democratic freedom does not mean a democracy free of regulation. Instead we must regulate our institutions, political, economic and technological, in order to preserve inclusive freedom. An efficient, indiscriminate response to the pandemic, economic inequality, and social divisions, hinges upon the mitigation of power asymmetries.

Compulsory systems can be transformed- We now rely on technology for a variety of large-scale statistical and analytical tasks. Tackling COVID-19, and the rest of today's challenges would be infinitely more difficult without such programmes. However, there is much room for improvement. If such technology is to provide us with reliable, diverse, and progressive information, we must create it with democratic use in mind.

Think about the values with which we produce technology, as well as those with which we use it – In order to transform our technology, we must change our approach to its creation. We must stop allowing corporate interest to encroach upon human values. If technology is to serve a democratic purpose it must be created with that end in mind.

Institutions must be empowered – While we must hold technological infrastructure to account, we must also empower existing public infrastructure. It is essential that technological aid does not come at the cost of the integrity of our public institutions. A global pandemic cannot be seen as an opportunity to corporatise public health systems.

Full Report

This debate is part of a series of events organised by the Digital Enlightenment Forum and will be followed by a debate between young professionals, on 6th of November, and an even larger event in 2021.

Introduction

Democracy is nothing without its citizens, and thus political action must give power to the citizen, in order for democracy to prevail. This is especially important in times of crisis. COVID-19 affects us all, on a social, economic and political level, yet we seem to be straying from citizen-centred public policy. How do we ensure that we do not lose sight of our fundamental democratic values when responding to a global public health crisis, and why has this proven difficult? Our approach to digital technology is at the heart of the issue. We are living in a world where communication is constant and complex, and information is infinite. Digital technology is the most accessible agent of progress, and thus an indisputable force in our joint response to the pandemic. Yet if left unregulated, its infrastructure could drive a wedge between citizens and public institutions.

This debate brings together speakers who have dedicated their careers to building a world that puts its citizens first. They gather to discuss the role of digital technology in the future of our democratic systems, through a virtual debate – a fitting example of the power of digital technology to unite and enhance human exchange. This power must be explored, not only in terms of its logistical potential, but also in terms of its impact on economic, political and scientific advancement. How can we best use technology to bring us closer to our democratic aims? How can we learn from history in order to program better technology? It is by gaining a holistic understanding of how this pandemic could affect our democratic systems, that we gain a better understanding of technology's role in mitigating its effects. If we are to emerge from this time of crisis with our citizenship intact, then we must also create the technology that will help us to achieve this, with this goal in mind.

Dr. Lieve Fransen – Debate Introduction

We are facing a major societal crisis because of COVID-19, but also because for the past few years, democracy has been under threat in several regions. Thus, the COVID-19 crisis has become interlinked with pre-existing crisis conditions. A crisis is often be a turning point for society, and the choices we make today will guide our collective future. The way we deal with the virus, whether in global solidarity, with transparency, and trusting evidence and truth, or the opposite will dictate how we overcome this crisis and transform our society. The way we use or abuse our new technologies in this process will indicate if we are to go further towards putting in place totalitarian regimes, or towards reinforcing our democratic processes. As the pandemic remains a reality, and the upcoming US elections in November challenge democratic processes, we, at Digital Enlightenment felt it was the right time to analyse the situation and draw lessons for the future.

Martin Wolf - Democracy Will Fail If We Do Not Think Like Citizens (Keynote):

COVID-19 may be an unprecedented health crisis, but the economic and political conditions it will leave in its wake, are the result of long-standing threats to democracy. We face a health crisis that has the power to bring democracy to its brink, pushing its people over

the edge. However, this state of crisis has underpinned the workings of our world for over a decade: long before the rates of COVID-19 soared, the stock market crashed.

The conditions for such a crash were born, in part, from inevitabilities such as massive deindustrialisation and globalisation, giving way to skill biased technological change. However, subsequent policy choices allowed for the emergence of the tech monopoly as a rent extraction machine, creating a class that Guy Stanley terms 'the precariat'. As political and economic bodies frantically collaborated to bail out the financial sector in 2008, a disillusionment began to take root in the people who were left behind, already stripped of the lifestyles they used to enjoy, and not afforded the lifelines given to corporate bodies. COVID-19 has starkly destabilised what we once thought of as consolidated democracies, bringing already deeply entrenched economic divisions to the fore. The rise of right-wing populist movements, responsible for many of the world's current leaders, is a clear example of such democratic instability, festering long before COVID-19. The current state of affairs, with many nations under autocratic rule, is a far cry from the future we imagined as we watched the Berlin wall tumble, in hopes of democracy being rebuilt.

Just as we reached a turning point in 2008, bearing the brunt of the astronomical economic and political consequences that followed, COVID-19 brings us to another. Having never fully emerged from the financial crisis, especially in Europe, the Western industrial monopoly has been lost, and in the crux of a health crisis, the economic and political consequences loom, fuelled by previous collapse. However, our world is now threatened by global aging, unprecedented environmental destruction, and of course, technological advancement beyond our comprehension. As we approach fiscal limits, we rely ever more on technology and artificial intelligence to mitigate human error, yet in doing so we may be losing sight of our power as people. If we are to emerge from this crisis with any democratic freedom, we must act as citizens, for citizens. This is the essential principle that has been eroded for over half a century since Franklin D. Roosevelt called us to the same action, with his infamous Four Freedoms Speech. As arguably the most important democratic politician was on the cusp of leading his people to war, he tapped into the essential duty his government had to them, announcing:

> 'The basic things expected by our people of their political and economic systems are simple. They are:
>
> Equality of opportunity for youth and for others.
>
> Jobs for those who can work.
>
> Security for those who need it.
>
> The ending of special privilege for the few.
>
> The preservation of civil liberties for all.
>
> The enjoyment -- The enjoyment of the fruits of scientific progress in a wider and constantly rising standard of living.
>
> These are the simple, the basic things that must never be lost sight of in the turmoil and unbelievable complexity of our modern world.'

It seems that in our current turmoil, complexity is at risk of eclipsing simplicity.

Of course, nowadays, these democratic mandates should be adjusted, to allow for further inclusivity, intersectionality, and sustainability; yet the core values must remain. Furthermore, as Roosevelt made clear, these pillars of citizenship must be respected not only domestically, but globally, as an inherent part of a democratic society. As COVID-19 spreads, economic divisions widen, and our hopes for a democratic future narrow, we are straying ever further from our four freedoms: of speech, of worship, from fear, and from want. The failure to learn from past mistakes will lead governments to an entirely undemocratic, potentially fatal point of no return. However, we are not a lost cause, but simply lost, not yet using hindsight as a guiding force. The path back to democratic prosperity is simpler than we may think; but it must be paved with past hopes, bridge the gaps of technocratic shortcomings, and built by citizens.

Tom Gerald Daly - Democracy and COVID-19 Worldwide: Digital Threats and Solutions:

Prompt questions[†]:

1. Could you provide us with a brief overview of the threats and challenges encountered during the COVID-19 epidemic, and highlight the role of digital technologies in this? I am thinking of course of fake news, propaganda, politization, the distortion of scientific information and the adoption of restrictive laws by some states; sometimes introduced like a trojan horse and later on not again dropped ….
2. While you highlight a lot of dark challenges, would you be able to share with us some hopeful examples of places where digital technologies have reinforced democratic processes even during COVID-19. As authorities and the state are regaining importance, how do they learn from valuable grassroot experiences?

When assessing the threats and challenges that we face due to the COVID-19 crisis, the impact of technology cannot be overstated. The democratic and the digital are becoming ever more inextricable. This symbiosis can, and has, led to sinister political policy: enabling an increase in citizen surveillance, causing a rise in disinformation and proving an essential tool to many modern-day totalitarian regimes. However, the digital can also work to reinforce the democratic, putting it back into the hands of the people, and allowing grassroots activist movements to grow and gain influence at an unprecedentedly fast pace. It can be synonymous with agency, solidarity, and innovation. Thus, the power of the digital lies in its unparalleled accessibility and ubiquity, making it an alarmingly malleable force, the impact of which depends on the intention of the user. It is a double-edged sword far easier to wield than a weapon. Indeed, without technology, we would not have projects like COVID-DEM, an online database that charts the impacts, both positive and negative, of the pandemic on democracy worldwide. It is a prime example, in itself, and in its content, of the multifaceted ways in which the democratic and the digital have joined forces to both combat and capitalise upon the

[†] Each speaker was sent questions by the moderator ahead of the debate, in order to guide their presentations and ensure that the discussion led to constructive, multifaceted debate.

COVID-19 crisis. Two possible versions of our democratic future have come into sharper focus, but the digital is an essential part of both.

The first future is rather bleak, it is one where digital technology falls into the hands of enemies of democracy. This opportunism is rife, both from within the state and from outside forces. The expansion of government surveillance is an immediate example of states abusing digital power, under the guise of virus suppression measures. Be it Israel, where contract tracing technology was developed by state security services, Bulgaria where surveillance technology has been used without citizens' consent, or Croatia where any judicial or political oversight was forgone; individual privacy is at stake. In the age of COVID-19, surveillance is in danger of being normalised as the exceptional becomes increasingly routine. Indeed, rumours once relegated to dark corners of the internet have become commonplace, with the WHO warning of an 'infodemic' as early as April. The pandemic has become a veil to which hate speech and conspiracy are able to cling. A pandemic, that naturally sheds a stark light on pre-existing societal divisions, is the perfect vehicle through which to delegitimise opposition, to contort concrete fact, and to scapegoat minorities. This frightening abuse of technology to push forward a harmful agenda is evident in individual and political action alike. China and Russia have rolled out propagandic disinformation campaigns, seeking to undermine democratic debate and exacerbate social polarisation with the aim of improving their own image. Many governments have even capitalised on the rise of misinformation in order to install policies that enable an almost total degree of censorship, and control. Singapore's Protection from Online Falsehoods and Manipulation Act has been bolstered to censor criticism of its government's response to COVID-19. Similar actions have been taken in Indonesia, Kenya, Hungary, and Brazil. Thus, digital technology is being used as both an offensive and defensive weapon, where democracy is the victim in both cases.

However, the use of digital technology does not always compromise the democratic process, and in some cases can enhance it. Where people were once routinely silenced by their government, due in part to political conversation being confined to parliamental spheres, the digital has opened such conversation. The Janta Parliament, India's online people's parliament, shows the power of the digital to break down bureaucratic barriers, with many citizens finally able to organise and debate, while their government remains frozen. Indeed, governments that have embraced the power of the digital have seen their parliamental procedure become more efficient, and far more inclusive. South Korea and Mongolia carried out successful elections during the pandemic, that were only able to take place thanks to digital campaigns and electoral systems, leading to record turnouts. Indeed, electoral campaigns have been revolutionised by the heightened importance of digital communication, so that establishment candidates no longer have the upper hand. Digital activism is one of the most promising outcomes of the technological shift that COVID-19 induced.

Beyond its ability to legitimise government opposition, digital technology can also create stronger bonds between current government and their citizens. Taiwan has built on its existing open-source, open-government movements, in order to monitor COVID-19 cases using crowd sourced information, allowing cases to be kept low, and insuring civic involvement in the process. Taiwan's 'Humour Over Rumour' strategy has also successfully addressed disinformation and fake news, working with its people instead of against them. Thus, when digital technologies are used to unite governments with their citizens - a union absolutely necessary in times of great crisis - they hold unparalleled democratic power. Thus, if governments are willing to put democracy back into the hands of their citizens, strategies implemented to combat COVID-19 become infinitely more effective. In the age of COVID-

19, digital democracy still retains significant power to do good, if used to unite, rather than to divide.

Nuria Oliver - Lessons Learned About Participation, Privacy and Contact Tracing:

Prompt Questions:

1. Please share some of the lessons learnt from leading a large population based survey about COVID-19. Does the participation of citizens and their trust in authorities make a difference in compliance and outcomes?
2. Could you give us some examples of evidence driven policy making, related to self-isolation or the wellbeing of young people for example?

In the spread of infectious disease, human participation is inevitable. Thus, we become both the agents and subjects of the pandemic. Yet, we are given very little agency in contributing to its response. Should we not be granted willing participation in the solution, in exchange for our unwilling participance in the problem? Since being named Commissioner of the presidency of Valencia in March 2020, this active participation is what Nuria Oliver is encouraging and developing through the use of data technology, collecting upwards of 300,000 responses through the Citizen Science Initiative COVID-19 impact survey. The purpose of the survey is to understand the effect that the pandemic has had on the Valencian population, and most notably their response to confinement measures, and the effects that these measures have had on them. As discussed, the pandemic has greatly heightened socioeconomic divisions, and it is crucial that we gather information from those disproportionately affected by the crisis. Unfortunately, minorities and disadvantaged peoples are not those typically involved in public policy decision making, but, if clear guiding principle and methods are introduced in order to account for these people, more inclusive, progressive policies may be in the pipeline.

Since March, Nuria's team of 20 have been gathering data in order to: analyse human mobility, build computational epidemiological models, create predictive models, and of course, to propel the Citizen Science Initiative forward. Through such projects, contact tracing, confinement measures, and political policies have all been put into question, with the people they affect seen as the driving force for change and improvement, rather than collateral damage. Thus, we are able to make informed predictions for the future based on current evidence, with physical and emotional responses to the crisis triumphing over self-interested speculation, and misinformation. Through the analysis of such data, we are able to discover the impact of COVID-19 on real people, and the epidemiological and predictive models created are informed by their perceptions of and reactions to the pandemic. This allows data to be humanised: the victims of the pandemic are not simply rising numbers, or spikes in a graph, but people whose experiences and opinions are essential in tackling the crisis. What we are interested in is not simply the strain that COVID-19 puts on health and infrastructural resources - although these are also of paramount importance – but the strain that it puts on citizens' mental health, and agency.

The data findings are thus vital in understanding not simply how effective certain measures are in stopping the spread of COVID-19, but also how they are affecting different groups of people. As a result of the state of turmoil we are in, only 50% of people believe

hospitals are safe environments, and only 32% of people believe this of schools. Thus, the institutions that governments are trying so hard to support, are becoming less and less trusted by their citizens. Women and young people appear to be the most psychologically impacted by the pandemic, reporting the highest levels of psychological distress, anxiety and loneliness. As well as being an indicator of psychological impacts, data technology allows us to assess just how effective the measures that may cause such impacts – quarantining for example – even are. For instance, honest answers show that only 48% of people report being able to self-isolate. Those unable to self-isolate list reasons such as: shared living situations, childcare/caring duties, mental health risks, and insufficient income. Thus, evidence strongly suggests that people of low socioeconomic status, women, and people at higher risk of mental health issues are not only more physically at risk from the virus, but psychologically as well.

What does this mean for the future of public policy decision making? And how can public administrations harness the power of the digital in order to improve the lives of their citizens? At the moment, decision makers in Spain, and arguably the rest of Europe, are not equipped to act digitally. Data is not yet synonymous with holistic health, as it should be, but simply an indicator to be glanced at. Data can no longer be up for manipulation or used only to illustrate part of the story. Indeed, the survey is cross referenced with other similar surveys taking place around the world, checked for inconsistencies, and discarded if answered impossibly quickly. This is all to ensure that the data is reliable, diverse, and treated as a vital resource in revealing the underlying, human reality that it captures. That being said, this reality is far from complete. Not everyone can be accounted for in data given voluntarily and via technological means. The window opens a reality, but it is a narrow one. The full picture can only emerge if further commitment is made to gathering data from a wider range of participants. A symbiosis must be encouraged between data, people, and technology.

We now know that data technology provides an insight into the COVID-19 crisis' psychological impact, but technology can also play a crucial role in easing the burden. We must design programmes that help make quarantine more possible, and effective. We must develop efficient methods of communication with those most at risk, in order to make them feel safer and less anxious. We must follow through on data findings, with policies and processes that take into account the responses of the vulnerable. Policy makers must not only give people a voice, but listen to such voices, and act with them in mind. Policies must be more participative than the pandemic they aim to protect us from.

Wieslaw Bartkowski – Towards Healthy Digital Technology

Prompt Questions:

1. From your varied experience and interests you look at the two sides of technology and come to the conclusion that the divide between the humanistic and scientific mind is not black and white. Digital technologies clearly have an impact on people's minds, behaviors and brains - could you share with us how this is impacting our democracy?
2. You recommend redesigning technologies starting from the values we want in society, and not from the technologies themselves as is done now. Tell us about your experiences, experiments and examples that are empowering and go in the right direction in your opinion.

We have now established that technology is an invaluable tool in fighting COVID-19. However, we must also explore the values that we impose upon technology, which are often born from a sterile separation of the human and the digital. Yet, as we grow to use certain tools, they become an extension of us, and in turn we become an extension of them. We have reached a point where technology is such a tool. Whatever values we use to program computers, are the values with which they will program us. Thus, it is time to treat technology as something human, rather than simply a counteraction to human error. Wieslaw Bartkowski encourages us to think of technology in an anti-disciplinary way: to not simply think of what technology can do for our health systems, but how we can create digital technology that is healthy in itself. Technology is now being used in various ways to combat a world-wide health crisis, with the aim of doing collective good. Thus, why is the narrative around its misuse so often centred upon individual use? If we are to allow technology to have such an impact on our health, then it must be created with its healthy use in mind.

To do so, we must remember that technology is not ethically neutral. Ethics do not simply come into play depending on use - technology carries the values of its creator. These values are mostly driven by corporate capitalism. These values are then embedded into the technology's operating system, and, as a result, heavily impact the decisions made with the help of such technology. Thus, our public policy becomes intertwined with corporate interest. We cannot operate on such a level of corporate bias when dealing with a health crisis – technology must be used to help people first. We must therefore rethink the values with which technology is created, and not simply the intended values of its use. To do this we must stop think of technology as a solution to human factors; what is digital is not perfect, and what is human is not flawed.

Every form of digitisation can be seen as a form of reduction. This can, of course, be valuable: digitisation allows for a reduction of complexity, thereby allowing us to observe and analyse far more efficiently. However, this can also mean a reduction of people to numbers and calculations. As previously discussed with regards to data technology, we cannot afford to flatten people into graphs and statistics. Not only because people deserve to be represented inclusively and holistically, but because this way of thinking can have a deep impact on our way of thinking. It seems that as we rely more and more on technology, we have created a great paradox: the most human attributes are those that are most impossible to digitally compute. We are in danger of pitting humans and machines against each other. If we are to tackle COVID-19 with people in mind, we must not let thinking in terms of the digital, reduce our capacity for empathy, compassion and creativity. Our desire to act quickly and accurately cannot overshadow our ability to think critically and laterally. We must build our technology with humanity as the solution, rather than the problem.

Seda F. Gürses – Privacy by Design as Infrastructural Power

Prompt questions:

1. Please share with us lessons you have learnt about the role of infrastructural power and how this has been taken into account by authorities and states whilst preparing apps and surveillance tools to confront COVID-19. Could you share with us why the value of data and algorithms has been recognized, but the role of infrastructure has not, and why this matters?

2.Your analysis points towards a blind spot with great geopolitical consequences. Could you make some recommendations for how Europe should tackle this?

When taking into account that myriad of potential threats that the spread of COVID-19 presents to the health of our people, and our democratic systems, the role of infrastructure must be considered. At a time where contact tracing is essential in tracking the spread of the virus, privacy is of paramount importance. However, when the two most important factors of a technological tool are privacy and universality, a dilemma emerges, and infrastructural power dynamics become strained. Seda Gürses has played a part in developing a privacy-preserving design for contact tracing technology, called DP3T. The design is the basis for many other contact tracing apps such as Corona melder and is congruent with designs developed by groups of cartographers and epidemiologists across the world. The design consisted of two phases: 1) Google/Apple provides access to the Bluetooth Low Energy API, which allowed also others to develop their own app (like in NL the "Coronamelder"); 2) Google/Apple will integrate the app functionality into their operating systems. This design behind Google Apple Exposure Notification (GAEN) raises concerns.

The involvement of tech giants in battling a public health crisis is an inevitable side effect of the ubiquitous nature of their operating systems. Initially, the DP3T designers assumed that governments and civil societies would have a say in the app's deployment, and all that this entails. However, in order for contact tracing to be as effective and convenient as possible we must be notified through our mobile phones. Thus, Google and Apple become key intermediaries in the process, as their cooperation is essential in ensuring communication between operating systems and quashing the interference of copycat apps. Crucially, the nature of the tracing application is such that changes would have to be made to their operating systems (Apple's iOS, especially), and the applications would become built into the phones; this is where they leverage their power. They might no longer support the apps built by others for phase 2 and government mandated safety measures become solely accessible through Apple, or Google. This presents an opportunity for tech companies to build unprecedentedly direct relationships with governments and health authorities across the world. Suddenly, there is scope for democratic policy to not only be enacted through the digital giants, but by them. They become the arbiter between states, consolidating the local, federal and national into streamlined, monopolised interface.

Beyond the now indelible impact of tech capital on public health, there is further cause for concern. The app's functionality would not only be deployed by Google and Apple, but as it is in-built, they would also hold the power of deciding when it should be removed from their operating system. Transparency and oversight by government and health authorities become further compromised when we learn that they remove the possibility to do scientific research on the data, as they provide production data, not health data. Thus, not only do Google and Apple hold power over the apps themselves, but they gatekeep any scientific explorations of the results of such apps on public health efforts. Essentially, they enter into a new monopoly under the guise of supporting health systems: such health systems can only be supported by their software. How can democratic institutions and processes compete with the rapidly expanding infrastructural power of tech giants? Their cloud infrastructure is currently faster, more scalable, and less costly than any other, and it has already been integrated into our lives such that a shift to public infrastructure would pale in comparison. Their foray into public health is simply an expansion of such infrastructure. In this future, privacy does not function

to keep power symmetries at bay, but rather as part of a monopoly of power. Google and Apple sought to position themselves between citizens and governments, by pitting their infrastructure against public infrastructure, where privacy becomes another feature, rather than a real concern.

However, we must not only think about how Apple and Google could further entangle their infrastructure with our public interest, but how they are already doing so. We must look at the dangers of technological production as well as use. The phones we require to use health apps, are produced in association with extractivist supply chains, in turn causing both human and environmental harm. Factory working conditions and raw material extraction techniques all contribute towards human and environmental exploitation. Thus, when advocating the use of apps and phones to promote health, whose health are we promoting? What claims to democracy and citizenship can we make when this means our citizenship comes at the cost of others' lives? Once again, it is imperative that we do not allow tech companies to dictate democracy in terms of their corporate interests, and that we begin to reconsider the human cost of the infrastructure they propagate.

Conclusions

Democracy is being challenged, by the spread of COVID-19, a looming recession, and the swinging pendulum of party politics. However, democracy is no stranger to threat, and has proven that it will not fall unless we lose sight of the fundamental human values that it is built upon. These values are what all of the speakers circle back to. These values are what we must not let digital technology put at risk.

It has become abundantly clear that COVID-19 would be even more challenging if we could not gather data, design programmes, or organise virtually. Digital technology renders solutions more accessible and effective than ever. However, there is an unmistakeable anxiety around quite what digital technology – and the corporations in charge of most it - is capable of. It seems that most threats arise when human and corporate interests diverge, such that technology meant to save lives does so selectively, and thus undemocratically. This discrimination is all too evident, yet it can come as a surprise to those who still consider technology to be a neutral instrument. If we are all trying to save lives, why is it that the tools we use may affect our ability to do so? This discussion has determined that the danger of technology lies, more often than not, in the values behind its production, rather than the intentions of its use.

For far too long, we have tried to separate the human from the digital. Now, in the throes of a global pandemic, it is clear that the human is far more at risk. Of course, it is valuable to discuss the merits of digital technology as a democratic tool, and its impact on global infrastructure. But what this discussion has taught us, is that we must reflect upon the infrastructure of technology. Throughout the pandemic, technological infrastructure has proven to be essential to economic and political functioning. Yet, as the power of technological infrastructure grows, the line between people and products, and companies and countries, fades. We must demand democratic integrity from technological institutions, just as we do of economic and political institutions. These institutions must be shaped by democratic values, if they are to contribute towards a democratic future.