

“Technologies of Hope”

Stephanie Hankey, interviewed by Daphne Dragona

DD: “[Technologies of Hope](#)” is a new online project launched this past summer as part of the “[Geographies of AI](#)” residency by Onassis Stegi in the context of the European ARTificial Intelligence Lab 2020, which is co-funded by the Creative Europe program of the European Union. Could you describe in a few words what are the technologies of hope, how do they relate to the times of the pandemic, and why did you decide to work on this specific topic?

SH: When Marek and I applied to be part of the “Geographies of AI” residency at the start of 2020 we knew we wanted to work on the theme of AI and Crisis. However, we did not know that, by the time we did the residency, we would be in the middle of a global pandemic. We did a lot of research on different themes related to AI and Crisis – climate change, environmental degradation, natural disasters – but we kept coming back to the pandemic because the trade-offs its technologies pose, the values they force us to question and the possibilities they present are common across the use of data-driven and AI technologies in response to crisis. In times of bad news, technology is sold as the good news story. It gives us hope when we face challenges that are bigger than us. It makes us feel like we are doing something. We, as individuals, can install an app or buy a smart watch. Institutions can make predictions. Companies can adapt their products. Researchers can launch grand challenges. And politicians can invest in million dollar contracts. The title is indeed ironic. But we also wanted to center on this spirit of hope and our faith in data, and contrast it with the really hard questions that this enthusiasm brings – increase in control, loss of freedoms, the normalization of surveillance at all levels, and new reasons for collecting and sharing intelligence on our bodies, homes and communities.

DD: The work is based on a selection and presentation of 100 (out of 200) technologies that you located. What were the criteria for your selection and how did you organize the material? I noticed that for their categorization you have played around the word intelligence – referring to ambient / biometric / behavioral / mobility. Can you tell us a few words about that?

SH: We focused on data-driven technologies that were extended, reimaged or adapted to directly address the challenges of the pandemic. Whilst the technologies here are extremely varied they have one thing in common: they all seek to create insights through large amounts of data – or “intelligence”.

In our search, we tried not to get distracted by the label of “contact tracing” but rather to look at exactly what kinds of technologies were being used under that label and to seek examples beyond that frame in order to understand what is really going on, what we can expect from the future. In our selection process, we tried to choose a single representative of each specific technology or approach so that we could get as wide a view as possible on the types of technologies that are being made and sold as pandemic responses. That means for some of the technologies, for example thermodynamic imaging for crowds, there may be as many as 20 or 30 other companies we didn’t include. It doesn’t mean one technology or company is any better than another, but

rather that we wanted to create a broad landscape of technological response rather than a comprehensive list. One important thing for us was to seek technologies from around the world. It isn't necessarily obvious at first glance but the reality is that most of the technologies that are used widely are hosted in just a handful of countries. So, a technology may, for example, be made in China but then used in Italy, Australia and Singapore. Overall, we searched for variety: different technologies, different problems they were trying to solve, different scales of companies, different types of clients and different ways of representing themselves. It's important to remember that for every large technology company responding to the pandemic, there are hundreds of small companies and solutions. And we wanted to examine this too – entire industries adapting their products towards the pandemic. From the large-scale and expensive smooth products of multi-nationals sold to governments, airports, malls and hospitals to the small, make-shift, budget items sold to stores, small businesses, religious and community centers and families. This is really the democratization of the surveillance industry and we wanted to capture that moment of collaborative consent in the face of fear.

We also focused on present and future looking technologies, although one interesting part of the research is that, even before we had finished it, some of the companies were already disappearing. We decided however not to let that change our selection because we really see it as a snapshot in time – an archive of a specific moment and a technological documentation of ways of thinking. For us, what the companies are trying to do, how they explain and visually present their products, is as important as – if not more important than – whether they work or not, how they were applied, or if they will even exist in a few years' time. This makes this project unique. It will always be relevant as it documents an unprecedented moment in our imagination of the technological and in this sense of our global history.

DD: When browsing through the different examples, one realizes that the target group and scale of intervention varies and differs in each case. The user of these technologies might be an individual but it can also be a public or private institution, or even a state. It is of course alarming to realize how bio-surveillance is being encouraged, how our body is being sensed and captured and how our biodata is processed. Do you think that we can protect ourselves from being exposed to these technologies? Should we, actually, protect ourselves? How can we do this when we are being told that this is for own good?

SH: The project intentionally deals with questions of scale and interrelationships between the individual and the masses. Some technologies are for individuals, some for specific communities and some for entire cities or even for cross-border mitigation and control. This is one of the most difficult parts of the project to get across clearly. But almost all the technologies are both about individual feedback loops *and* collective insights. By their very nature, most big data, machine learning or AI driven technologies rely on thousands or millions of data inputs to learn and become more effective. Most often, with these kinds of technologies, the data input comes from us as individuals. So, whilst we may find such technologies useful for our own self-management or diagnoses, we also have to remember the following: It is often not about us but rather about the

patterns that all the users create – the collective insights from all the data subjects. This is the real value for a company, institution or government using such technologies.

In this sense, I believe that we have moved beyond notions of privacy and protection. We don't even have appropriate language any more for the ways in which such technologies challenge our fundamental freedoms, shift societal norms and create new centers of knowledge and power. Yes, there are definitely reasons to think about individual protection and choice. However, the bigger concern may be related to how we want to live now and in the future. In particular, the section on "Modifying and behavioral intelligence" shows it most clearly: clean scoring our supermarkets, analyzing movements in school gyms, restricting movements of workers, buzzing us when we touch our face too often. These ideas about how to deal with humans and their interactions in a time of pandemic go beyond the question of privacy and consent and into more fundamental questions about the fantasy of crisis and control.

DD: Which of the examples that you located worried you the most and which ones can be considered good enough to count on and be developed?

SH: Most of the technologies we found we have seen before in our research on other projects or we have noticed have been in development for some time in the background. In this sense, there is less "new" technologies about the pandemic than you would think. We noticed that this is more of a "pandemic pivot" of existing products, as we state in the accompanying text titled "Solutions looking for problems." Many of these were quite predictable, but it was interesting to see technologies that have been developed for one field being extended to another. For example, incarceration and house arrest technologies extended to quarantine and drone technologies and were reimaged for enforcement and disinfection purposes.

What was more surprising was how quickly some technologies we had been monitoring for some time became adapted and normalized – in particular, technologies for biometric and behavioral intelligence. Technologies such as geo-fencing which is known for a while (for example in our [research project](#) on data and politics) are now openly utilized by governments and large institutions at a hyper-local level on citizens. Whilst there are some stand-out examples like that one, overall, what concerned us the most has less to do with the technologies themselves and more with who is operating them, under what grounds and with what exceptions and privileges. This includes intelligence companies whose technologies are normally utilized in the name of anti-terrorism or to track and locate criminal rings that extended their services to tracing infected individuals.

DD: What can we learn in the end from knowing the existence of these technologies? How do you hope that people will make the most use out of this collection? You are highlighting that these technologies target not the virus but the host, that they address not the cause but the symptoms. Could such a collection of pandemic technologies also help us reimagine these infrastructures, their design and use?

SH: The collection leaves us with a series of unresolved questions and that's intentional. We wanted to go into the heart of the trouble and let people find their own way through it: making

their own judgment calls and bringing their own questions. As the strains and stresses of living in the context of a pandemic have grown, we are reminded more than ever how much of this is personal, cultural, social and political. How differently each of us takes to balancing individual freedoms against collective responsibilities, maintains trust in institutions and in each other, and how neutral we imagine technology to be compared to how biased it really is. Some people will take up all the technologies they can no matter what the consequences if it holds the potential to save just one life, while others see it as a diversion and a distraction from solving the real problem.

The landscape of “Technologies of Hope” provides a backdrop to ask these questions. It provides the space for people to think through which technologies we really need and which ones we really don’t, and how we feel about them. Through looking at them as a collection, we may get closer to some ideas about how to reimagine these infrastructures of observation, mitigation and response but only if we are willing to step outside of our context. When thinking about the kinds of AI and technologies of the pandemic (or any other crisis) we want, we need to be ready to find out what our technological limits and boundaries are, and ultimately which values will we hang on to in the face of crisis and which ones will we cast aside.