

Para-Platforms
On the Spatial Politics of Right-Wing Populism

Markus Miessen & Zoë Ritts (eds.)


Benjamin H. Bratton, Liam Gillick, Hannes Grassegger, Mahmoud Keshavarz, Angela Nagle, Nina Power, Patricia Reed, Konrad Renner, Slavs & Tatars, Jonas Staal, Hito Steyerl, Wolfgang Tillmans, Stephan Trüby, Christina Varvia (Forensic Architecture)



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Right-wing populism is not new. Yet our current historical conjuncture presents emergent and extreme forms that demand critical inquiry. This is true at the level of the spatially imagined, the virtually performed, and the designed and physically built—as each in different ways is facilitating the unprecedented development of right-wing politics. In Europe and abroad, neo-Nazism, fundamentalism, and hate-based ideologies rooted in violent patriarchies have gained institutional acceptance and political sponsorship at a variety of scales. This reader considers new ways of moving through space and new patterns of occupying space, and investigates the implicit relationship between design and politics. Material is never neutral.

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The Case of Trump & Brexit
Hannes Grassegger

Hi. Pleasure and honor to meet you all here in Gothenburg.

I'll be starting from a very left-wing space. Look at this beautiful photo of what Salvador Allende was planning to set up in socialist Chile in 1970: Project Cybersyn. [fig.2] It's a control room, a computerized operations center, for a planned economy. It's a cybernetic dream, which we've seen being realized only today — and which ended up in the hands of the Trump campaign.

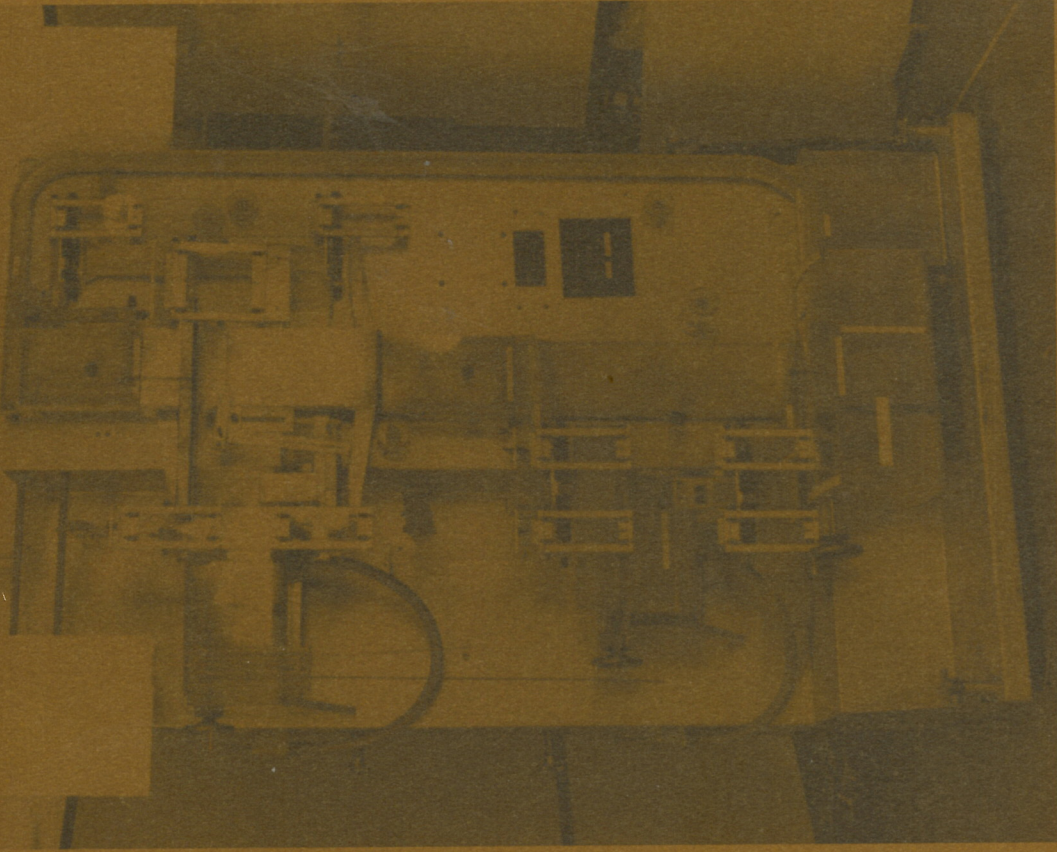
To better understand what a “control room” is: if you look back at all these computer-ish screens and buttons in the Cybersyn image, these seats were meant to orchestrate the Chilean economy and to have a central place from which the whole state could be managed. People in the control room would receive real-time information about the factors of the planning economy, like production numbers, where trucks are circulating, the flows of electricity etcetera, and be able to send back certain orders to elements within the economy. Tell the power station to pump out more energy in the South, for example. Try to circumvent a barred route via train-delivery. And so on. Actually, the people in the control room would do very little, but supervise and oversee the automated self-regulation of the system. Once necessary they would step in — hence the buttons and screens.

This sort feedback loop is actually based on much older ideas, which started in the late 1940s. Just to show you how advances some of these ideas were, here's an essay of one of the founding fathers of cybernetics, Vannevar Bush. He developed the concept for this marvelous third eye, a kind of electronic goggle, which is probably the first draft of what later became Google

November 25, 2017



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Glass. A lens that you put on your forehead that, once you read a scientific paper, would read the paper you are reading and then automatically sort through all the microfiche in an archive and see if there's something related in it which could be linked to what reading. So there were ideas like hypertext in the 1940s, already in place. The last image is an essay about the concept in the *Atlantic Magazine* in mid-1945. One of Bush's peers was Norbert Wiener, one of the founding fathers of cybernetics, author of the famous book *The Human Use of Human Beings* (1958).

The context of cybernetics is that during the late years of the Great War, scientists from different branches were brought together to develop methods on how the war could be won. Social scientists were brought together with engineers and technicians, and their big question was how to control a system that is part machine and part living being, meaning animal or man.

Cybernetics is the idea of controlling systems through technology, of, more precisely, steering a system with the help of feedback loops. The classic example to illustrate this is the thermostat. If you want to have the room temperature at twenty degrees, for example, you would set the room temperature there. The heating starts working and a thermometer in the thermostat discovers there's a difference of two degrees, and so it manages the heating system and lowers or increases the temperature. This is a feedback loop where you send a signal, receive information about the true state, then the system automatically adjusts.

Early on it was discovered that this could be used in social environments as well. Alban W. Phillips, an important economist in the late '40s, developed a machine that simulated the flows of money in the British economy. [fig-3] It's like an analog computer with a lot of liquid inside, and you can actually figure out the inflation rate and the amount of money circulating in the British economy. This is just one of the many examples where people started to apply these cybernetic ideas to manage more complex social systems.

While this is at the macro-level of society as an aggregate of human beings, at the very same time, within mathematics, psychology and economics, new methods were being developed to incentivize and influence the behavior of the individual being. This is Game Theory in particular. Then all of this came together

in the late '60s, and in the cybernetic research environment a scientist named Stafford Beer was sent to Chile to help Allende kick start this great project Cybersyn, of "Let's apply cybernetic management structures to an economy." Unfortunately, this project failed terribly, not only because of the political situation, but mostly because the information infrastructure wasn't in place. At the time the Cybersyn control room was planned in 1971-73, it was meant to be connected to telegraph systems. The amount of time to get and send the information was actually overwhelming. It was basically a fancy futurist idea, because the data infrastructure wasn't there.

But today, in 2016-17, we all know the slogan: "Data is the new oil." Some even say "data is water," because it's so ubiquitous. Please note this is not "data" but "personal data," the datafied behavior of human beings. It gets pulled out of all that we're doing through the devices we are using such as smartphones, or apps like social networks and messaging tools.

I have this little [fig-4] image here which shows that there are actually four methods of data mining, and I will give examples of that.

One is data-mining by capturing what you're doing in a certain environment. Another method is self-recording, like when you are filling out forms on Facebook. There are two types of data about you. Either tacit information, like your pulse or your body temperature, stuff that you couldn't easily put in words, and then there's information you can verbalize.

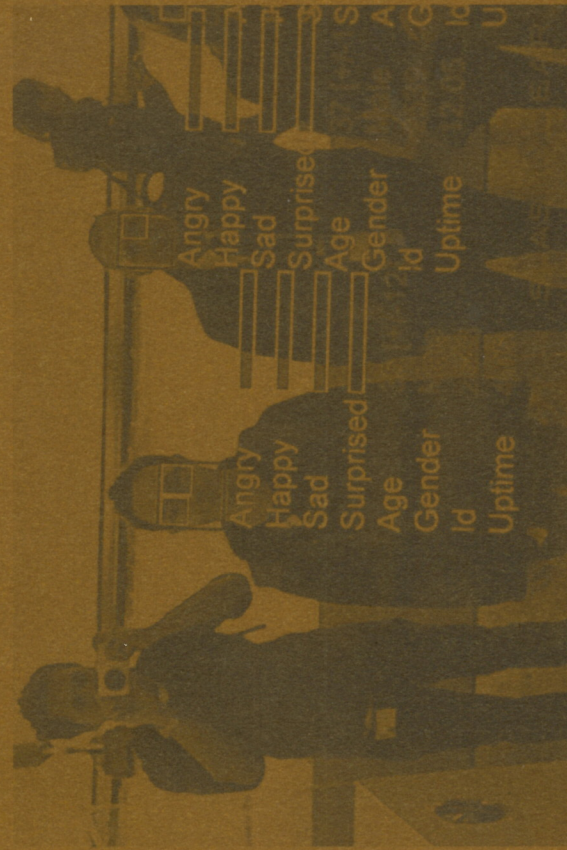
Here's an example for capturing: a self-driving car captures data about how you're moving, where you are looking and where you are going. The best example for self-recording is Facebook. This is where you verbalize what you're doing. Here's another example for how to verbalize something: a simple email. There's a lot of words in it, you are expressing something, at the same time an email contains location information, time-stamp, constitutes a relationship between sender and recipient. Your provider, like Gmail, contractually owns this data. Then, as an example for how to capture tacit information: one of those fitness gadgets counting your steps, measuring heart beat, body temperature, and so on.

To sum it up: today we have all the data Cybersyn needed so badly to start functioning. Throughout the last years in my work as a writer I was looking at how, basically, our personal data was



Teach

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getting captured and marketed. We hand it over to companies by signing all of these contracts, clicking on “yes” to agree to the terms and conditions of any app or a program we want to use.

Let me give you examples. Here’s a company capturing our business relationships: LinkedIn. Or an emoji tracker, simply counting and ranking the use of emojis in a given context. Have you ever wondered why you get all these emojis for free on your phone? It’s because your moods and sentiments are valuable, marketable information. Imagine you’re a weapons trader in some place and you would be able to detect where people feel the most hate. Next example: a book that actually reads you whilst reading. It’s called Kindle. All such tools are sensorized: they run statistics on our behavior, and even without us knowing, they capture our user data. Google cooperating with Levi’s Jeans. Result: a sensorized pair of jeans. Or in your bathroom. Most of us are probably using these electric toothbrushes, and some of them are probably sending information to a cloud. Just remember when you were a kid, the first thing a doctor would do is look into your mouth, because this is really valuable information about your health condition. Then we have the upcoming Amazon Echo gadget. It’s a cloud connected artificial intelligence, a sort of Siri in a box. It’s basically a spying tool listening to everything you’re saying. Again, it’s just capturing your data.

Even if you’re not actively equipped with any sort of tool, our environments—here’s an example [fig.5] from a supermarket experiment where they are recording how we’re behaving and moving within a shop. That way they can figure out what your preferences are. What would be the maximum price you’d pay for a liter of milk in a given situation?

Our entire environment is getting more and more sensorized. They call it smart. The reason is that sensors are becoming cheaper, because they are mass-produced for the billions of smartphones which each contain dozens of them. Today it’s sometimes even cheaper to sensorize everything than to not use sensorized parts.

So if you don’t want to share your data, and want to get rid of everything, say “go to Africa or India.” In come the balloons and drones that Google and Facebook are sending to cover regions that are still off the grid, with the example of the Facebook drones.

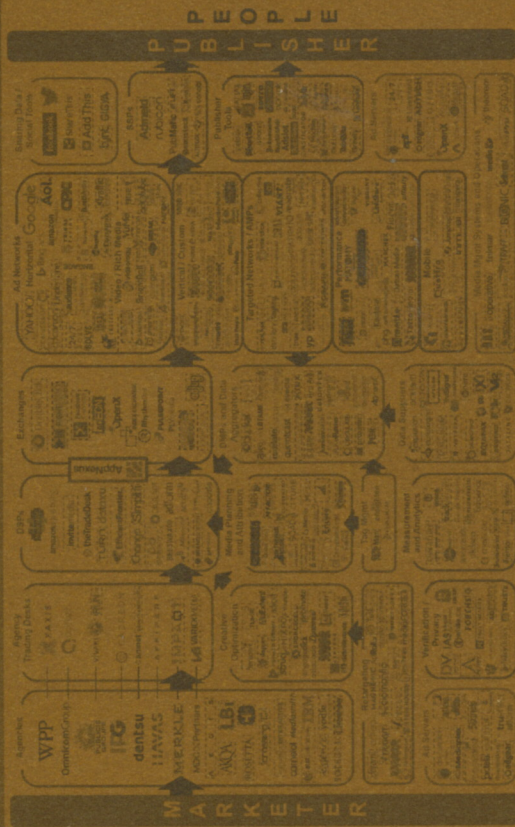
The next example, of how you connect your personal biological information with the info you put on the web, is a company called 23andMe. You can send in a little bit of your spit or hair and they will analyze where you're from, what kind of disease you might suffer from in the future. The service is comparatively cheap, like \$100 as opposed to the usual price-tag of over \$1,500. The results, it turns out after some tests, are very unreliable, but on the other hand 23andMe now has your genetic code information. The founder of that company is Anne Wojcicki, who once was married to Google founder Sergey Brin. Accordingly, Google was one of the first investors to 23andMe. These investors have their hands on your bio-data. It's easy to correlate this with your search data, for example. The whole Silicon Valley gold rush is basically about getting your personal data. It's a big race to get more and more data, individual data, and how to best connect biometric information with user data.

Lastly: you don't own that data. You have signed it away, and you can't control it, because it's in the cloud. You don't have your data on your computer. It's somewhere in the cloud — and what really happens on the other side is ... It's 2014. I'm based in Switzerland where we're hosting the annual World Economic Forum. Already then the big topic was personal data, the "emergence of a new assets class." It's an asset because it's being traded between those companies that own your data.

Here's what the personal data market looks like. [fig.6] You see companies that are like Facebook, sending data and receiving personal data. You see companies like Acxiom — these are called Data Brokers. These companies compile all your data out there and create an identity of you, and offer it for sale. It's a B2B, a business-to-business service for personal data exchange. This was the sort of research I was doing a couple of years ago, the background for what we'll talk about next.

As a writer and investigative journalist I was always wondering what the risk might be in this, what evil might come out of these data markets. So I made an experiment. In early 2016 I called one of these data brokers and told them I was a Berlin-based start-up planning to sell religious cookbooks in the US. I said I wanted to buy the data of about three to nine million American women. Potential customers, I said. I asked them, if I could get the

DISPLAY / W / scape



real names and addresses of so many women. They said sure. I said, you know, we are about cookbooks, so could I get more info about what these women buy, what they eat or if they have allergies and all that stuff? The company said no problem, we have all their shopping data, and bonus card infos and memberships. They offered the Facebook accounts, emails, and phone numbers of the women too, in case I wanted to get back to them and ask them if they liked the products. It's that feedback thing. Then I said, you know, my company is into religious cookbooks. Our board is concerned we might hurt our customer's feelings by sending out the wrong cookbook to the wrong person. Could you sort these women into religious categories like Jewish or Christian or Muslim? And then the guy—he was called Bruce—was like “Let me quickly double check,” and then “yes we can do that.” So if anyone in the US is debating whether there are Muslim registries, there are. There are Jewish registries too, and you can easily buy them. Anyone could. Guess what the price tag was for all that personal data? Three cents per unit, meaning three million persons, from full names to allergies to religion and shopping preference: \$90,000. Imagine how great this would be for terrorists. How easily they could target you.

In June 2016 I became interested in a company which at the time had announced they would be working for the Leave EU campaign as digital marketers. The company was called Cambridge Analytica. At the time nobody was really interested in them, they were just one of these companies helping campaigners. But I was really interested because they said they were using personal data to profile individuals. In further researching I stumbled across a story in the *Guardian* where the company was actually mentioned in a case of somebody illegally collecting, or potentially illegally collecting, American voter data through Facebook from unwitting users.

I figured that there was a scientist who had somehow worked on similar methods, so I called him up and we met when he was in Zurich—his name is Michal Kosinski. He was a Cambridge PhD at the time, and told me about the research he was doing. At the Psychometrics Centre at Cambridge University, a group of young researchers were working on a massive personal data analytics project called the MyPersonality project, where Kosinski and his colleague David Stillwell were trying to measure personality

just from publicly available personal data. The sort of data each of us is putting out there every day.

Psychometrics is the measuring branch of psychology, the branch where you assign numerical values to different aspects of personalities. It's been around for over one hundred years, but the MyPersonality team simply figured out that one of the most effective resources to measure personality traits is Facebook likes. They built one of these tests that are everywhere on Facebook today, where you click through five questions to find out which superhero type you are—more Spiderman or X-Men. You fill it out, it's just five questions and by the way, but in the little contract that you have to click “yes” to beforehand, you might accidentally give away free access to all the stuff you've liked on Facebook. All your likes. This is what the *Guardian* associated Cambridge Analytica with.

The Cambridge University researchers were, at least, being very transparent to their users at the time. They got all data for research purposes only and with explicit consent by the test users. In no time, MyPersonality built the world's biggest research database for personal data. Hundreds of thousands of users tried the quick test and thus granted access to their likes. This was incredibly valuable. Out of that Kosinski et al. were able to predict personality, just from Facebook likes.

They used the most standard model to do this, which is called the five traits or OCEAN model: Openness, Agreeableness, Extraversion, Conscientiousness, and Neuroticism. Out of these five components you could describe more or less the personality of every person. With 150 Facebook likes they were able to predict better what a person would do in a certain situation—like a model situation: would you turn red, left or right, would you say no or yes to your husband—than a long-time partner or a specific person.

With sixty likes they would be better than your closest friends in predicting your personality. And with three hundred likes, they would even be able to predict better than the person herself how she would act in a specific situation. Of course, such analyses can not only be inferred from Facebook likes. Here's an overview paper where the authors analyze how you could actually use other sources of data than Facebook likes, like from the motion-sensor in your phone, such as how abruptly you move your phone. And

which places you are going to, if you look at geo-data. This tells a lot about you as a person, and your character.

Cambridge Analytica's MyPersonality describe their project as a sort of machine that produces you out of your digital footprints. Your individual profiles, the big five personality that I mentioned, the psychographics. A men-machine. This was the unique project Kosinski et al. were working on. Kosinski became one of the world's foremost researchers in psychometrics; he's very well respected and a highly-cited scientist. Of course, even back then, he and his colleagues considered how these personalities would actually relate to political opinions. They also experimented: "Could we figure out a person's sexual orientation just from his data traces?" and figured that if you have a combination of liking cosmetics and Lady Gaga as a male, the probability that you're gay is higher.

Then, in early 2014, a colleague approaches Kosinski. Today this colleague is called Dr. Spectre, he actually changed his name to that. Spectre was one of the guys overseeing Kosinski's PhD, and told Kosinski, when he approached him, that there was a company that was really interested in cooperating with MyPersonality, a British company called Strategic Communications Laboratories. They wanted to use the Facebook data sets and the algorithms of the prediction machines that Kosinski had developed. Kosinski was really interested in getting money for his research, but on the other hand he was a bit scared, and it sounded like a lot of money—so he looked up the company and it looked like they were doing something really strange. On their website they said they were doing behavioral influence planning, globally, and mentioned military projects too. Kosinski thought it might be too risky.

And then something really strange happened at Cambridge University. In short, Dr. Spectre disappeared, then this strange incident happens, where the *Guardian* reveals Dr. Spectre is collecting Facebook data from US citizens. The next thing Kosinski sees is a new company named Cambridge Analytica which says they're using methods strikingly similar to his. And they're using them for the Leave EU campaign. Subsequently Kosinski receives loads of calls from former colleagues who are mad at him, because they think he is supporting Brexit. Which he isn't.

Cambridge Analytica went from supporting Brexit to campaigning in the US. So here we are clearly in a right-wing space, simply right-wing cyberspace. Alexander Nix, the CEO of Cambridge Analytica, gave a now famous speech in the summer of 2016, just after Cambridge Analytica had announced they quit working for Ted Cruz, who was one of their early US clients. Within the Republican party, Ted Cruz lost against Trump. During this speech, Nix discloses that they are now working for Donald Trump, and explains in detail his company's approach. Cambridge Analytica, he claims, could construct any voter's psychological profile out of datasets. And it has "5000 data points" per US voter. Out of this data they built the five traits model for each voter in order to help their clients influence them through personalized targeting with information. This is the cybernetic feedback loop: send and receive information and adjust the system. Of course Nix shows the signature Cambridge Analytica control room. In 2016 such a thing of course is a user interface on a computer.

What you see is a map of individuals, which Cambridge Analytica claims to have individually have profiled. The map shows their name, age, and their political position. They claim to buy most of their data from data brokers. You see Axiom in screenshots of Alexander Nix's presentations, and you see other brand names including the Facebook logo.

Once the company has the data, voter identities are being created algorithmically. Many companies today are doing such things. Cambridge Analytica claims it is different from its competitors because it uses personality rather than demographics to understand voters. Demographics is about your income, age, where you live, how you've been voting in the years before. But personality is really about whether you're a nervous person or not and all of these specific traits.

Nix also explains in this ten minute video how they are actually identifying people by their real names, even though most data is technically anonymous. In the US you can buy voter lists and connect the name on the voter list to other data sets that might have a certain overlap. It becomes clear from the video that Cambridge Analytica was really applying Kosinski's methods. Still, when researching Cambridge Analytica we figured they're also

using other methods, so here's one paper where they're talking about how they assess the overall education and intelligence of potential voters in order to influence them.

The next thing is Cambridge Analytica announced that they would be working for Trump. That was during the last four months of his campaign. During their time with Ted Cruz they had already gathered a lot of voter data and built voter models. Now they would target those voters, with the idea to frame your message according to each individual's personality. This is called micro-targeting.

So for example, to convince a neurotic person to support the right to own a gun, the company would suggest an advert that creates a scary situation, like a burglar breaking into an apartment. A weapon thus stands for security. For a more traditionally oriented, less fearful but more agreeable personality — remember the trait “Agreeable” — they would target them with information framing gun ownership as something that comes as a long-standing American tradition. The ad would show father and son, hunting ducks. That's attractive to someone whose profile displays such traits.

This means that if you want to micro-target, if you want to really create individualized feedback loops with every voter, you must make one advertisement per person. How the heck would they do it? This is beyond Kosinski's work, which only is about analyzing individual's data.

I called Nix right after seeing this video — I had him on the phone and lucky me I recorded the conversation — he mentioned they were doing it through Facebook, mostly. This turns out to be not fully true. They delivered more or less the algorithm of how to target the individuals. They joined, at this stage in the campaign, the Republican National Convention Data Team, which actually did nothing very special. They just created ads and sent them through Facebook to individuals they had identified based on the psychographic profiles they had. If you go to Facebook now, everyone can do ad-targeting. Their targeting tool is just how you do advertising on Facebook. Facebook offers thousands of very detailed categories of human beings. They even used to offer “jew-haters.” Also, at the time you could even do stuff that related to the color of your skin. If you apply this and add timing and

place, you can be very granular. You can target specific persons in a certain situation. You can basically select whom you want to reach out to, and do crazy things. You can send a shocking piece of news to a group of friends just before they meet for dinner. This stuff shows up in your Facebook feeds — that's the targeted information.

Old information, the old style of advertisements, is based on your search queries, on some ideas people might have about you once they see you're a student or something. The Cambridge Analytica style of advertisement is more oriented toward your feelings, because we have to understand that social networks are not networks for information exchange, they are emotional networks. You have “friends” on Facebook, and you “like” stuff. Facebook and Twitter are basically emotional networks. Sending out emotional information is far more effective than other kinds of information. That's why I find the argument quite convincing to have a campaign based on emotions and personality. Trump, and all right-wing haters which are not too shocking, are clearly more suitable candidates for social-media amplification.

Lastly, once a campaign has sent out their ads, they can see how people react to it. How they click on ads, how much time they spent watching it, if they share it etc. So, like in the example of the thermostat, you can measure the room temperature, i.e. How the environment reacts to your stimulus. And then you can adjust your ads. Does a blue background work better than a red one with neurotic types? You can start making test groups. This is called A/B testing. You can vary so many factors. Some of this is manual labor, some is already automated.

This is the sort of real-time feedback mechanism Salvador Allende's teams were dreaming of. First, you gather the information about the persons through all these technical devices, you get the data together, let your algorithms run over it, send info, analyze the feedback, and so on.

During the election we experienced the emergence of a huge right-wing digital space, filled with conspiracy videos, shitstorms, fake-news, dark-ads only visible to some. Surprise, what turns out, Trump wins.

So there's been a lot of debate about whether our report, that we later wrote, was putting too much of an emphasis on how

powerful Cambridge Analytica is. I think we are now in the Model T era for individualized or personalized cybernetics. This is very early. We will see much more of this in the future. For me such possibilities give a new meaning to virtual reality. I cannot judge whether this was the decisive tool of the Trump campaign, but Cambridge Analytica, being marketing guys, immediately congratulated President-Elect Donald Trump for the win, and wrote: "It demonstrates the huge impact of our cutting edge data science and we are thrilled to have played such an integral part in President Donald Trump's extraordinary win." As for me: I called Facebook to ask them about the campaign data. They are the best- and only source to see what Cambridge Analytica did and how big their impact was. But Facebook didn't want to help me.

Facebook can basically see everything, how people clicked on ads. Alexander Nix, when I talked to him on the phone, mentioned that actually the Trump campaign was making money off campaigning — had made a profit off the election campaign because they had, through crowdfunding, made so much money using these technologies. Facebook could tell.

I've been looking at today's cybernetic systems for years and had never imagined they would be used for the American elections. But it's so obvious. Again, the story I wrote, which my colleague Mikael Krogerus edited and the researcher Paul-Olivier Dehaye helped gather information for, was from my perspective an illustration of what you can do with personal data today.

This sort of right-wing space is a fully commercialized space. It's right-wing, because right-wing people bought such services. Cambridge Analytica claims to be neutral. It's their customer's political ambitions that count. It turns out that actually the biggest customer they had is a right-wing billionaire named Robert Mercer, one of the most influential, behind-the-scenes figures in contemporary American politics. He also helped during the Brexit Campaign by financing the company and even reportedly co-owning Cambridge Analytica USA.

Now, during the recent Russian phobia thing, the name Cambridge Analytica popped up again because they had to hand over all their mails to Robert Mueller of the FBI who is investigating

Donald Trump's possible Russian connections. There are several legal processes going on against the company in the UK and the US. It might be the case that some interesting things will come out in the near future, but it's very hard to say.

What I find the most interesting is that this new way of influencing people, of managing society, will not stop after the elections. It will become a standard tool of governance. If I think of virtual reality in the future, and then I think of the government that distributes personalized information to each citizen. Information that would make him believe that, you know, his government is really doing a great job. The infrastructure is all set up for this. There are companies willing to do it, we have seen test-runs and we see people willing to pay for it. Cambridge Analytica worked in Kenya, Australia, and Mexico after our story came out. That's the kind of right-wing space that I have discovered.

*A follow-up note from Hannes Grassegger
Zurich, February 2018*

Think of the Cambridge Analytica story as kind of soft power invasion of your daily routines, a new form of gentle pervasiveness where I am trying to enhance your life with a reality thriller. Something that haunts you once you touch your smartphone or use Tinder. My editor and I, Mikael Krogerus, plus our genius mathematician researcher, formed a narrative from what we saw was just around us. It's now a living, breathing reality, something you can't avoid watching, full of wonderful and amazing and wicked characters that lead a real life full of real secrets they know about each other, and also about us — and they are revealing them slowly but surely. Soon maybe the dragons will come in. And whilst you are watching it, seeing posh Etonian Alexander Nix and pink-haired Christopher Wylie the whistleblower you are starting to understand you yourself need to change your life, because if not you will be drawn into that world you thought you was just a dark spectacle. It is not. It is digital business. Nothing but that. And actually you are already a part of it. Mostly everyone is. Trump is as true as Zuckerberg.

Markus Miessen Thank you so much, Hannes! First question: (MM) of course this presents quite a gloomy outlook, but is there any way to somehow, even on a personal level, withdraw from this?

HG As I said, once our environments are sensorized, you're not able to withhold data anymore. And if you can draw information about your personality from all sorts of things like how

you move your face, I don't think there's any way back. After the report, Twitter—they were very concerned that their company had become sort of a weapon—asked me, "What would be the silver bullet to solve, we don't want to be a weapon." I said the only thing I could imagine is total transparency for third parties to see what is happening on your platform.

I'd say to Facebook: give me the information of what the Russians sent out to whom, who bought it, what the Trump campaign said about it. At least then we can see then what's going on.¹ I wrote a little book four years ago, which argues, from the bottom of my economist's heart, that I think we should own our data. I should have ownership of it, meaning I should be able to decide who gets my personal data and who doesn't. And I should be compensated for that. That might be an economist's answer, and there might be many problems associated with that, but it's what I'm thinking.

MM Technically, do you think this may be possible?

HG No. But because technically this is not possible, we need a rights-based approach. What we are in now reminds me of a feudal system, of medieval times where the overlords own the fruit of your land, and they decide when to kill you and lock you in. Now people are asking me what kind of helmet they should get. I would suggest not a helmet but a redistribution of ownership, like back when we introduced contracts between the landowners and the farmers. Like today when you give employees rights over their product.

There is a giant opportunity just waiting for all of us if we introduce data ownership. But I fear the opposite will happen. Historically, we've been raised in a time when everything was open. But if you look at history—"Gote-borg"—comes from the word for castle in Swedish. There are walls associated with this city and its fortresses. At worst, we had this brief period where we didn't have walls, where we had liberal environments protected by law, but now, to me, it looks like data ownership will not win. People will use firewalls, and encryption and attacks and so on. Walls will be built.

Question One

In the early days of tech, designers were part of data mining, even Charles and Ray Eames designed and formed new technology. What do you think of the role of designers today?

HG I think designers are currently helpful in making people more addicted to these data collection machines. These are great, well-paid jobs for designers. I don't see anyone—thus far—paying designers in ordinary life for helping us out of this situation.

But it might be a market opportunity to create a mechanism that eases this situation a bit. Right now I do think all talking about revolutionary design is just fancy talking. Most people are actually figuring out the right color set and the right frame to make you spend more time on each of these platforms.

Question Two

There are also devices designed to help you hide, and hide your information, on the Internet.

HG This is armor too, from my perspective. This is stealth mode. I think actually what we need is kind of not a technical solution to this, since this is a social, political, and economic issue. I think what is really helpful is the debate amongst designers. Economists don't have such debates like you guys are having. More debate amongst designers is already a very useful thing. Ultimately it informs politics. I read a lot of design and arts news, then I write a report in our magazine, and it ends up in a politician's hand or entrepreneur's hands, and that's one way that design can inform.

Christina Varvia

(CV) How about legislation? To tamper with the election would, in principle, be illegal, correct? If you have a company that claims they've done just that, then what is the impact? Are they able to assess whether it was done or not, because technologically they couldn't even know what it does?

HG I tried to figure this out, during the research, because it's a brilliant question — as equally yours is, really. I called a couple leading data protection authorities on the EU level, in academia. They were not able to answer it clearly. I had just one simple question: Does data law in the UK fall under European law? Under European law you're not allowed to do political profiling based on personal data without explicitly asking each person, whether I can create such a profile. Of five leading authorities, none had a definitive answer. They would say the answer would be in general terms yes — but there might be ways that local legislation allows for certain loopholes, which I don't know yet, which is what these companies are actively using.

That's the way things are done in times of the gold rush. Uber is just extending its network and then waiting for the first lawsuits to come in. Political companies are very much doing the same. Because everyone in the legal sphere is like "That sounds so technical, I don't know this new technology thing." This is a human factor that is just playing out, and will continue for a while I think. So I don't believe in the German answer, meaning extending the legal laws of the government overseeing this. I don't think it will really work, because this is far too useful for the government, I don't even see their self-interest in that. Politics can build and maintain power just with those same tools.

MM So, in terms of the market, say if I wanted to work with Cambridge Analytica ...

HG You would call them.

MM Would it be a first come, first served situation?

HG Yes. After I wrote the article, the head of the company that my little brother — a very nice guy who likes my reports and so shares them — came back and said: "This sounds really interesting, what Cambridge Analytica does." The next month they invited them to speak.

So, they do. Alexander Nix walks right in front of my little brother, of course he didn't know it in that situation who my

little brother was. Everyone in the company was scared of my little brother speaking out, so they shielded him away, but he managed to slip into the elevator with Alexander Nix. The two men were in the elevator. My brother says, "Hey you're Alexander Nix, right?" and Alexander Nix says, "Of course." Nix is very British. So he says, "My name is Vincent Grasseger, I'm the brother of Hannes Grasseger, who wrote the report about your company." Nix had been working on elections in revolutionary settings, developing countries, like really bad stuff. So he pulls out his business card, gave it to my little brother and says, "Um. Tell him he should call me."

They're having great business right now, but they're also facing severe legal challenges, because in the UK there's a lot of legal investigations.² It's probably illegal what they did, but soon judges will decide, because Cambridge Analytica is suing my colleague at the *Guardian*, who is continuing to write about all of this. It's strangely enough the same lawyers Putin is using.

Question Three

I was wondering to what degree is it possible to see how these tools actually make people change their mind. I'm thinking of how media, even before the digital, shows that most people are just interested in affirming beliefs, they buy the newspaper they like.

HG This is a very good question, a core question again.

During the 1950s there was this debate about "deep psychology" and how supermarkets would be able to manipulate all the consumers by arranging the color sets, and a lot of people would be shopping for things they wouldn't need. Then in the late '60s and '70s you had the debate about brainwashing and people getting totally manipulated, returning to the United States after wars and becoming terrorists and sleepers on call — there are great movies about this — and now we have a recurring theme, the manipulation and brainwashing thing.

I would rather stick with what is said about affirming, and so what we saw when Nix was presenting these two advertisements is that you put a person like you, probably who's totally

not interested in supporting guns, you know, and frame the message in a way that you would agree. Make you affirm something. This is not really manipulating you, this is not brainwashing but framing a certain thing in a way that you would be OK with. And then it's about activating you. I don't believe in brainwashing, but there's this study which a colleague of Kosinski's, Sandra Matz, did where they presented people with two ads on Facebook, framed according to their psychological profile. One would be the opposite of what they figured your type is and one would totally go with your type. And they compare how people clicked on each ad. They figured people are really much more likely to click on an ad which suits the type of personality that they identified. There's a potential that this stuff really works, and if you think about how many people are currently using Facebook advertisements, Facebook ad targeting, then it's a major market. I don't think companies pay billions for it just for fun. These people believe it works for them. And of course as a Facebook customer, you get feedback numbers. Robert Mercer invested in Cambridge Analytica, and actually founded one of the world's most sophisticated artificial intelligence investment funds himself, so he knows the matter quite well. I think he wouldn't invest in a scam, being a renowned software developer himself.

Finally, there is the whole question of information warfare. This is basically the field that Strategic Communication Laboratories is based in, so they do different information operations and psychological operations, so-called psy-ops. Russia is doing similar stuff, and here in Sweden you have a commission working with your government to detect such stuff. We can certainly discuss this later.