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THE ANNUAL MAGAZINE
ON INTERNET AND SOCIETY RESEARCH

VOLUME 2018

Knowledge transfer and impact · Whistleblowing · Big data and nudging · Copyright and upload filter · Science policy · Content moderation

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EDITORIAL

What responsibilities does research have today? In an age when facts are becoming increasingly contested and subjectively felt truth is shaping social realities, Alexander von Humboldt Institute for Internet and Society (HIIG) is pondering its role in the production of knowledge. The question of how to shape the relationship between science, society and politics is, of course, not a new one. Claims that scientific research can provide normative evaluations of social developments or make value judgements about political decisions have often been rejected – and rightly so. Science can never offer a universal truth or an objective representation of the world. It can, however, question the conditions of validity and actively reflect on its relation to ideologies, intuitions or feelings. Researchers are trained to make transparent how they draw conclusions. They are – or are supposed to be – driven by doubt, sceptical of all forms of certainty, not least their own.

Can and should research remain apolitical? Especially in times when it has become more common to question academic reasoning? Is it justifiable for research to still linger in the comfortable role of the observer under these circumstances? And how should HIIG chart its course between the power of the private sector and that of politics? In times of constant contestation and of the politicisation of facts, the voice of scientific reason becomes necessarily political. Science serves the

public and society at large by aspiring to remain a reliable source of information, providing knowledge that describes the processes used to derive its findings. It must disseminate this knowledge, share it with a broader public outside the universities, research institutes or the scientific community. It needs to remain firm when competing with so-called alternative facts, erroneous information and propaganda in today's aggressive attention economy.

As part of this effort, HIIG is seeking to play its part by making knowledge transfer a priority, thus fostering bilateral exchange between research and society. In 2018, the successful lecture series Making Sense of the Digital Society and the Impact School were just two of various formats that shared complex issues with diverse audiences and practitioners. The annual research magazine encore is another one. This year's issue specifically addresses the topics of knowledge and transfer by looking at social networks and publics, digital participation, copyright, data-driven business models and the impact of research.

One of the main objectives of knowledge transfer is to challenge the worldviews that we take for granted and that restrict our capacity for intellectual and democratic self-determination. To the extent we are willing to learn from each other, we will be rewarded with answers we may never have considered before.

Jeanette Hofmann,
Director at HIIG

Thomas Christian Bächle,
Co-Head of research programme at HIIG

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COMMENT

Exploring uncharted terrain

Björn Scheuermann, director at Alexander von Humboldt Institute for Internet and Society, questions boundaries within disciplines and gives reasons to overcome them.

Try talking to a researcher, one you don't already know, about her work.
One of the very first pieces of information you'll get is her discipline.
And rightly so.
Our disciplines not only narrow down the subjects and questions we are (supposedly) interested in.
They define a body of methods, results, terms, approaches, phenomena, fallacies and problems we should be familiar with.
They also define the culture of interaction between scientists, our conventions, and how we exchange knowledge, discuss, publish and think.

Assume that you get along well with that researcher.
She's from a field you're not really familiar with, but you discover that you are fascinated by similar topics.
Are you likely to come up with revolutionary new insights together?
Pardon my pessimism – but no.
Discussions with people from other disciplines mostly consist of explaining well-known (in your little world) methods, results, terms, approaches, phenomena, fallacies and problems.
Talking to people from other disciplines confronts you with unfamiliar and oftentimes implausible conventions and ways of exchanging knowledge, discussing, publishing and thinking.
It will eat your time and your energy.

Now assume you run into someone from even further outside your little world: a practitioner, living, working and thinking in that "real world" out there.
You may discover that you're fascinated by similar topics.
Are you likely to revolutionise the world together?
Pardon my pessimism again – but no.
Serious transfer between research and practice will eat even more of your time and your energy.

So, should you leave things be?
Happily dwell in your little world?
Hell no!
Cooperations like these won't give you immediate rewards, reputation and results within your discipline.
But if you're willing and able to invest the time and energy, you'll be rewarded with approaches you haven't seen before, results you didn't know, questions you didn't ask, problems you didn't perceive, methods you weren't aware of.
You'll be challenged to question your own conventions and ways of exchanging knowledge, discussing, publishing, thinking.
If you are aware of the cost, this can be incredibly inspiring.
It can help you to enter uncharted terrain within your own discipline.

The revolution will not start at the boundaries.
But the questions that start a revolution may.
Do you want to find them? ◆

“WE HAVE TO DO THE BEST WE CAN” TALK WITH CHELSEA MANNING

Chelsea Manning became a public figure as a whistleblower in 2010. She was an IT specialist for the US Army in Iraq, when she decided to make classified information – such as footage of civilian deaths by US Forces – available to the public. She was sentenced to 35 years in prison for this act of whistleblowing but was released by President Obama in 2017. In May 2018, Theresa Züger, who wrote her PhD thesis about digital forms of civil disobedience at Alexander von Humboldt Institute for Internet and Society, had the chance to speak to her in an interview as an opening session to re:publica alongside Geraldine de Bastion, an expert on communication and information technology. This visit to Berlin was Chelsea Manning’s first trip to Europe after her release from prison. The whole conversation was moving to everyone in the room, not only because of the political brisance. It was a very special moment in the net society’s history due to Chelsea Manning’s visionary and thoughtful analysis about technology in our times and her inspiring and humble personality.

What Chelsea Manning made clear is that the problems we are facing – such as biases in algorithms – are not technical problems, but rather human ones. In reality, this conversation about technology turned out to be more of a conversation about politics than anything:

Theresa Züger: [In her keynote] danah boyd was pointing to a huge problem with prejudices in society. Aside from biases in algorithms – how do we change diversity in our heads? How do we get to a different kind of thinking? Because I think what she pointed out is that this is actually where we have to look first.

Chelsea Manning: Humans are like a machine learning algorithm, in our day to day lives we’re doing the same thing that a machine learning algorithm is doing, because we’re learning, so we learn biases and prejudices, not necessarily consciously, but we have to take a step back and become more self-aware of our

position, our probe, our privilege, our position in society and we also have to listen to what other people say who aren't us. We should be listening to people of color or immigrants. We should be listening to what their experiences are and what they're telling us because we don't have that experience. We have these biases built into our systems that we have learned, and we have to unlearn those – and that's not going to happen by continuing to go about business as usual. People have the ability to learn, and when we don't do this, we end up worse off in society.

Züger: From what you're saying right now, I feel that dissent is a very important idea in your political thinking and I wondered.

Manning: It's the primary idea of my political thinking!

Züger: […] and I wondered where you think the limit of what is debatable in democracy is or where you would stop talking?

Manning: Well, you can't have a debate with somebody who is calling for genocide or ethnic cleansing […]. I don't necessarily think that handing every single white supremacist a microphone, like we do in America, is a good idea. I don't think that's a requirement. I mean, it's not free speech, it's hate speech. I don't think free speech means that you hand anybody who has an opinion a microphone.

Züger: I read in an interview that your actions against the wrongdoing of the American government were the result of certain values that are very important to you and, since I wrote a PhD about civil disobedience, I wanted to talk about what those values are?

Manning: I value people, I value my friends, I value my family, I value people that I don't know that have similar experiences, I value people, whose experiences or what they go through I don't have any knowledge of. I see humanity as having an inherent value that drives me, that drives every moment of my day. I'm not a perfect person, but I try my best to live by these values because that's the way I've felt deep inside since I was a kid. We are all connected. I feel like all of us have a connection to each other, and that connection [exists] especially in a society like

ours where everything is so connected. We're connected to people we don't know in far-off places. Even mathematically, we do have about six degrees of separation with virtually every single person in the world, so really, we don't have a large world. There's this great photograph taken from Voyager One, the space probe, it's called the pale blue dot. Carl Sagan had a great poem that makes me have a moment every time I read it – and I read it every so often. We're on this tiny speck, this tiny little dot, and we – with all of our hate and all of our prejudices, and all of our frustrations – just seem so paltry and so measly on the scale of planets, on the scale of stars, and the scale of galaxies. We really only have each other, and we are dependent upon each other in a very limited ecosystem and in a world that is fragile and in a society that is fragile, and we have to recognise our role in that – each and every one of us and do the best that we can with what we have.

Geraldine de Bastion: It's very beautifully said – not just very beautiful, but also very humble. Which is something not all humans are good at, sadly. Is this something that you've always carried within you?

Manning: I'm not special or anything. As a teenager, I could sometimes be arrogant and I thought I knew everything, but my experience of the last decade has taught me that no matter how much experience I get in life and no matter how much I read, no matter how much I learned, it feels like I actually know less. I am less important the more that I've lived my life because I realised that the things that matter most are the connections that we have and not what we've learned or what I experience and that has been a humbling experience the last decade of my life gave me. Going into the military, being homeless before that, and going to war and then going to prison, [...] I've seen and I've learned things that I'm going to take away and do better because I've had these experiences for the rest of my life. I was driven to do good before but now my values crystallised. It solidified my dedication to just living the best life and doing every single thing that I can to make the world better – just as a person. Not as a famous person, or a political figure, or as a public figure – just as me as an individual.

Züger: But I do believe that, for a lot of people, you really became a bridge figure to political thinking with what you did. Your actions showed what

one person can change. I wonder, how can you and we encourage more people to have that bravery to believe that they can change something in society?

Manning: I wasn't able to speak for seven years. I was able to write a little bit and I had a Twitter account eventually, but I worried because I got thrust into being a public figure all of a sudden. I've never been a public figure before. When I was in prison, I wasn't a public figure in my day-to-day life. I was a prisoner, so I just worry that I'm an imperfect person. There has been a kind of cult of personality that is really intimidating and that is overwhelming for me, and I'm still trying to adjust to life after prison while also being a public figure at the same time. I've been struggling to balance that. [...] I'm still in recovery, I still need to take time to figure this out and this is hard!

de Bastion: How are you managing that? Because, I mean, that makes so much sense and at the same time you're speaking out on so many important topics. It's not just that you're focused on technological issues or prison issues and immigration issues, you've sort of embraced everything that is important to you and that you feel isn't just. That must also be a lot!

Manning: Yes, the things that drove me ten years ago, the things I was concerned about like the militarisation of police, the use of mass surveillance, the adoption of algorithms in governmental and corporate decisions that impact our daily lives, have only accelerated and increased in power and increased in the entrenchment that they have, and we see that every single major systemic problem has been made worse and is becoming worse. We can't wait. The time for talking about reform was 40 years ago. We can't talk about reform anymore. We can't talk about hoping for change and tweaking something here and there to change things that's why I'm out here. It's because we don't have the time to figure it out, build minor tweaks. This is a systemic acceleration towards authoritarianism across-the-board worldwide. We have to do everything we can right now to stop it and because we can't ask it to stop, we can't nudge it to stop, we have to make it stop!

Züger: Since this is my last question, there's really one that interested me. Your act of whistleblowing changed your life completely, but has it changed you as a person? What has stayed the same with you?

Manning: I mean, everything is the same. I'm the same person you know. I'm stronger and I'm older, and I'm more experienced but the same I was ten years ago [...]. When you are with other people [in prison] that have also been stripped away of everything, you realise – that this is what matters. This is who we are. It's not what suit or clothes you wear, it's not what you do, it's not where your job is, or your title. It is who you are when you've lost everything. How much integrity you have as a human being when you've lost it all. [In prison] we had that, we found that together as a group because we needed each other in an environment where any one of us could be messed with by a guard at any moment. We couldn't look the other way and let that happen because it could happen to one of us, so we would band together and depend on each other for mutual aid and mutual comfort in these tough moments. I learned that this is what humanity is at its base. The strongest part of us is the ability – even in the most intense and the most extreme circumstances – to band together and fight back and to get through it and survive. ◆

The conversation in full is available online:

www.hiig.de/talk-chelsea-manning

LEONIE RETTIG

Who wants to e-participate – and why?

The latest form of the diverse phenomenon of political participation is e-participation. One area of interest in this field is what encourages people to e-participate. In particular, the resources and networking features of digitalisation have been addressed by researchers as determinants of inequalities. In addition to these factors, political motivation has always played a major role as an indicator of political participation in general.

#NeverAgain, #TimesUp, #NoGroko, #BlackLivesMatter, #IranProtests – these hashtags have all gone viral in the last few years. They showed people's outrage, dissatisfaction and a drive to fight for change. Such keywords have come to name different protests, each of which has tried to make an impact on the internet and on the streets. The movements in question illustrate the overlapping boundaries between the digital and the analogue world. Additionally, they are one of many forms of political participation. Since the advent of democracy in Athens, participation has been an important basis for democratic structures. But even if participation has been a part of democracy for more than a millennium, it has been constantly changing and adapting ever since. As a result, a range of different forms and shapes of participation have developed. The common characteristic they all share is that people undertake voluntary actions to directly or indirectly influence the decision-making process on different political levels (van Deth, 2014).

E-participation is a subtype of political participation. The question of what characteristics or activities should be classified as e-participation has been widely discussed. Generally speaking, e-participation is defined as any voluntary activity using an internet application and aiming to influence policy or politics. The main problem is to distinguish between online, offline and hybrid participatory behaviour in this context (Gibson, & Cantijoch, 2013). While some offline participatory activities have online counterparts, others complement each other. For example, writing an email or a letter to a member of parliament are online and offline counterparts. Likewise, taking part in a protest march and posting about this march could be described as complementary. Thus, when observing people's online participatory activities, it is important to consider to what extent activities relate to an online or offline dimension. Although conceptualising political participation and its subtypes is complex, research has been dealing with the unequal distribution of participatory behaviour for decades. Scholars such as Verba, Schlozman and Brady (1995) have identified three main reasons for non-participation: "they can't, [...] they don't want to, [...] nobody asked".

Let's start with *they can't*. People need resources like money and time as well as civic skills, such as reading and writing competencies, to be able to participate. How am I supposed to take part in a demonstration against sexual harassment when I have to work eight hours a day and look after my

kids? The answer is clear: if I don't have any time left, I won't be able to march on the streets for #TimesUp. Then there's *they don't want to*. This barrier relates to personal motivation to engage in participatory activities. Why should I write an email to a representative trying to change weapons laws in order to support the #NeverAgain movement if I'm just not interested in the issue? If I am not interested in my political environment, if I don't feel like I could have an impact on policy or if I don't have an issue that drives me to influence the political sphere, I won't participate. Finally, there's the *nobody asked* factor. My social environment influences my behaviour. Would I have even noticed that latest #BlackLivesMatter petition I signed if my neighbour hadn't told me about it? Or would I still vote if none of my friends did?

Many researchers have analysed and theorised how the internet could make up for these inequalities. There are two positions in relation to this idea: mobilisation theorists argue that the internet will close the participation gap in the long run, while reinforcement theorists believe that the gap will widen due to the internet. Both theories mainly concentrate on the impact of resources and networking on e-participation, because of the associated changes that come with ICTs. In order to participate online, people need to have the hardware and specific skills to make use of it. As long as these resources are given, users can connect more widely with each other on the internet than they could in person. In contrast to the networks and resources which are widely discussed by scholars of reinforcement as well as mobilisation theory, the potential role of political motivation on e-participation is disregarded.

In the existing literature, a number of cognitive and affective attitudes are discussed, including political interest, political information and knowledge, political efficacy, satisfaction with democracy, partisanship, group membership, political value orientations and a sense of political engagement as a civic duty (Schlozman, Verba, & Brady, 2012). It is very plausible that resources like a computer are needed to participate online; likewise, it is reasonable to think that social networks like Facebook affect individual networks and therefore participatory processes. This means that the determinants of political participation change when it comes to e-participation. Considering the above-mentioned types of attitudes towards politics and the change in other determinants, the following question arises: how does political motivation influence e-participation?

Political interest, political information and knowledge, political efficacy and partisanship have been shown to be strongly related to traditional engagement activities in several studies (Rosenstone, & Hansen, 1993; Schlozman et al., 2012). By contrast, group membership, engagement as a civic duty, satisfaction with democracy and political value orientations like left-wing or right-wing ideologies, as well as issue and candidate orientations, could not clearly be found to generally correlate with offline participation.

In order to empirically determine motivational factors that potentially increase e-participation by individuals, data from the March/April 2018 wave of an individual-level dataset from a national survey of the GESIS Leibniz Institute for Social Science was used to analyse this subject (GESIS, 2017). The mixed-method (online and offline) omnibus access GESIS Panel is representative for the German-speaking population being at least 18 years old and living in Germany. This means that the results only apply to e-participation among the German population.

As stated above, defining e-participation is already controversial; the same can be said about measuring it. Here, it was operationalised as a binary variable based on several online activities. For example, respondents were asked if they had expressed their opinion online, signed an online petition or sent a political email at any time. Regarding the discussion about conceptualising e-participation in relation to offline participation, this operationalisation is considered sufficient in this case. Still, future research should concentrate more on conceptualising and measuring online participation.

The empirical analysis of how political motivation relates to e-participation produced some surprising results. Only higher political interest, internal political efficacy, satisfaction with democracy, left-wing ideological value orientations and a sense of political engagement as a duty correlate positively with political e-participation. At the same time, factors such as partisanship, political information and external political efficacy did not relate to e-participation. These results show that, overall, political e-participation and political motivation are positively correlated. Nevertheless, different determinants had a more significant effect on e-participation than those described in the literature on offline participation.

Political interest was found to be the strongest indicator for e-participation, followed by internal efficacy. This means citizens who are interested in their political environment and feel like they have the skills to engage in political decision-making are more likely to participate online. If people are additionally satisfied with democracy, classify themselves as having political values on the left of the political spectrum and regard political engagement as a civic duty, then their likelihood of engaging in e-participation is even higher. On the other hand, the strength of partisanship, the feeling of being heard by political actors and political information don't increase the likelihood of participating online. Surprisingly, different motivational factors were shown to be more beneficial for e-participation than those predicted in the literature for offline participation. Furthermore, the study controlled for age and level of education. Individuals who are younger and more highly educated are more likely to engage in e-participation. This could be related to the internet skills and usage patterns that younger, more well-educated people have, but the study did not further investigate this.

These results have a number of limitations. For instance, including other or additional e-participation activities could change the results found in these analyses. Likewise, developments like voting advice applications, e-voting or e-boycotts should be taken into account as e-participation actions in future. For instance, in Germany this means looking at the usage of an online information tool for elections called Wahl-O-Mat or recent online calls to boycott products by Nestlé. In addition, such e-participation forms could lead to major differences in correlations to motivation. For example, is participation in the e-protests #IranProtests related to having an Iranian family background, or is it about how I feel about political values like human rights? Do I post my opinion online using #NoGroKo (a hashtag critical of the governing grand coalition in Germany) because I support one political party over another or because I feel dissatisfied with democracy or the last German government? Moreover, although this research project focused on political motivation, resources and networks should still be regarded as potential indicators of e-participation. In fact, only by considering as many indicators as possible will it be possible to gain an understanding of e-participation. Identifying those indicators is both the problem of research on political participation and the solution to it. ◆

THIS IS AN ARTICLE BY **LEONIE RETTIG**

This is an updated version of an article first published on 4 September 2018 on the Digital Society Blog of Alexander von Humboldt Institute for Internet and Society (HIIG).

Leonie Rettig worked as an intern for the research project *Competing and complementing – The relation of co-determination and new participatory platforms within companies* at HIIG. She is interested in political participation, democratic integration, as well as social movements and their changes due to digitalisation. Since 2018, she has been pursuing her postgraduate studies in political science at the University of Mannheim.

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PROTEST

COMMENT

Understanding the impact of innovation

Ingolf Pernice, director at Alexander von Humboldt Institute for Internet and Society, points out the role of science for the political sphere to manage upcoming challenges.

Democracy aims to facilitate good and legitimate political decisions, ones that are acceptable to the people affected and that reflect the common good. It is a mode of governance. Science aims to discover the truth, no matter whether it is friendly or brutal. It is a driving force, condition or tool of innovation.

Science is about facts, natural laws, and technical, social and political developments, as well as about the effects of political decisions or technical innovations on nature or social life. Research findings are true until they are falsified. Falsification, in turn, means there is another answer to the question, a new truth.

Democratic decisions are right or good until they are shown to be wrong. Wrong means that the real effects are not what people expected or really want(ed). But how can we ensure that democratic processes produce decisions that have the effects people want? They must be based upon facts and explanations provided by scientific research.

In the case of climate change, science and technological innovation can bring about global challenges; and they are needed, in turn, as an information basis for adequate responses that governance and, in particular, democratic processes must deliver. Likewise, the disruptions we face as a result of the digital revolution are a new challenge to our societies.

Just as science and technology were the driving forces of the industrial society, today, mathematics, physics and computer sciences, along with the information technologies based upon their findings, have catapulted us into the digital age. The internet, blockchain and artificial intelligence offer incredible opportunities for information, communication and education, business, markets and politics worldwide. But in the *digital constellation*, we also have to rethink concepts like the public sphere, the state, and democracy. In addition, new risks and challenges, from threats to privacy, intellectual property and cybersecurity, to the fake news, disinformation campaigns and psychographic microtargeting that are threatening our democratic processes compel us to act. These challenges cannot be managed by individual states alone; democracy itself requires democratic norm-setting instruments beyond the state; it demands global action.

Here is where science is relevant again: it enables us to understand the impact of innovations, including the new risks they create for society, to rethink the methods of governance, and to find tools for managing the risks and challenges that are unintended side-effects of technical progress. More than ever democracy needs science both so that it can adapt to the needs of the digital constellation and to identify the right political responses to the challenges ahead. ◆


Bundestag

"You don't have to stop selling sweets [...] in order to sell more fruit instead. It is enough to place the fruit in a clearly visible position."

BIG DATA AND NUDGING: MARKETING OR MANIPULATION?

INTERVIEW WITH FLORIAN IRGMAIER

Nudging is already used in everyday situations where it is supposed to subtly influence people's behaviour. Similar phenomena can also be found in the digital world. Florian Irgmaier was part of a team at Alexander von Humboldt Institute for Internet and Society (HIIG) that investigated so-called big-data-supported behavioural regulation. The results were published in the study *Nudging: Regulation by Big Data and Behavioural Sciences* (Grafenstein, Hölzel, Irgmaier, & Pohle, 2018). Florian Irgmaier is a doctoral candidate at the Weizenbaum Institute for the Networked Society and is interested in the epistemic foundations of, and the impact of automation on, regulation. He was interviewed by Nadine Lahn, a former intern at HIIG.

Nadine Lahn: Florian, what is nudging?

Florian Irgmaier: Richard H. Thaler and Cass R. Sunstein, who introduced the concept in their book of the same name, understand nudging to mean every aspect of a decision-making situation that influences people's behaviour in a predictable way, without resorting to prohibitions or financial incentives. As in the famous canteen example: experimental studies have shown that in a canteen you don't have to stop selling sweets or make them more expensive in order to sell more fruit instead. It is enough to place the fruit in a clearly visible position. This is because, according to the thesis, people often choose the path of least cognitive resistance when making decisions, i.e. the path where they least have to think. Essentially, it is a matter of exploiting the error-prone but predictable mechanisms that shape human thinking. However, the term "nudge" is often the subject of political controversy and is used inconsistently. That's why we've decided to use the term "behavioural influencing" in our research project.

What problem is nudging intended to solve?

People often behave differently than certain actors want. The state wants taxes to be paid on time, a company wants to sell as many products as possible and

environmental organisations want people to separate their rubbish. These are very different goals, but they all have in common that people should be encouraged to behave in a certain way. Nudges are designed to do this more effectively and cheaply than monetary incentives or bans – so it is one relatively new instrument among others designed to steer behaviour in a particular direction.

What areas of our daily lives are subject to influence?

Today, someone has probably tried to influence your behaviour and mine several times. Supermarkets, for example, have been designed on the basis of psychological knowledge for decades – it is not for nothing that the more expensive products can be easily seen and reached. Of course, this does not mean that every attempt to influence our behaviour is successful.

In your research project, you dealt with big-data-supported behavioural influencing. What is that?

When we talk about big-data-supported behavioural influencing, we're talking about instruments that are intended to influence behaviour and, in doing so, rely on more or less elaborate theories about human behaviour and on the automated processing of large amounts of data.

What are the instruments used for?

In our study, we identified three societal areas in which big-data-supported behavioural influencing is applied particularly often: first, eCommerce. A well-known example is advertising that adapts to products that users have already bought or searched for on the internet. Secondly, there is nudging of employees in companies. This category includes, for example, Uber's driver app, which is intended to influence drivers. When they finish up for the day and want to log out of the app, they get messages like "Are you sure you want to go offline? Demand is

very high in your area. Make more money, don't stop now!" Third, self-observation and self-optimisation. These include applications that people use to change their own behaviour, such as their fitness, nutrition or shopping habits.

Is it legitimate to influence people in this way? Is it even possible to decide what is best for them by going over their heads?

The legitimacy of this kind of behavioural influencing is highly controversial, and each person must answer the question of whether the actions of particular individuals, groups or organisations correspond to his or her own normative standards individually. Of course, science cannot define with any certainty what is legitimate and what is not, and what standards should apply. What science can do is suggest criteria which can help us make reasonable evaluations. We have taken the value of self-determination as a point of orientation – it is deeply rooted in the political tradition and at the same time independent of concrete purposes that are pursued in a self-determined way.

What requirements and recommendations do you derive from the study? What is this supposed to change?

We have derived three basic recommendations that should help to strengthen individual and collective self-determination when dealing with big-data-supported behavioural influencing. This includes the demand for more transparency, education and public relations work: individuals and society should be able to make informed decisions about which instruments are and are not acceptable, which ones they want or don't want to expose themselves to. Because not being noticed is part of the functional principle of some instruments, the creation of transparency is enormously important. A publicly accessible register could contribute to this by providing an overview of the various applications of big-data-supported behavioural influencing. Then, legal changes would also be helpful, such as banning or restricting permission for particularly compromised or sensitive

areas, for example, in order to protect minors. Finally, we need ongoing research as a basis for such legal action so that society can get a reasonably complete and up-to-date picture of how digital technologies are used to influence behaviour.

Economist Shoshana Zuboff paints the picture of an emerging "surveillance capitalism". Are the fears that people will soon be almost unable to act independently and will be driven into immaturity by companies justified? How do you assess the future development of big-data-supported behavioural influencing?

I don't think these fears are unfounded. In our study, we encountered some creepy applications that deal with people in a questionable way but are praised by their developers as great innovations. Psychology, behavioural science and neuroscience are producing increasingly sophisticated theories about human behaviour. Information technology systems are observing us in a growing number of areas of life and increasingly refining their analytical frames.

But we cannot fall into paralysing fatalism in the face of such scenarios. The rise of data-supported behavioural influence is neither a force of nature nor fate. Much of what is technically feasible is already prohibited or regulated by law. In the same way, big-data-supported behaviour influencing can be controlled politically if sufficient public pressure builds up. What the future of digital behavioural control looks like is therefore in our hands. ◆

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JONAS KAISER AND ADRIAN RAUCHFLEISCH

How the right takes advantage of YouTube

With over 1.5 billion users a month, YouTube is the world's biggest social media platform. It is also the communication and information backbone for the far right in the United States, YouTube's recommendation algorithm has contributed to the formation of this filter bubble.

In the aftermath of the shooting at Marjory Stoneman Douglas High School in Parkland, Florida, a conspiracy theory arose. It suggested that the outspoken students calling for gun control were not victims, but rather *crisis actors*, a type of allegation aimed at denouncing protesters that has been around since the Civil War in the United States (Chokshi, 2018). This theory quickly made the rounds on conspiracy and far-right channels on YouTube. For far-right channel owners, YouTube is more than just another platform: it is their informational battlefield, the place where they can post seemingly whatever they want, find support, unite around a shared message and potentially catch the media's attention. In our analysis, we show that YouTube's recommendation algorithms have actively contributed to the rise and unification of the far-right. For far-right media makers and their subscribers, including channel creators, talking heads or so-called produsers (Bruns, 2006), YouTube is the backbone of much of their communication efforts. It combines radio talk shows, video and the opportunity to talk about everything the so-called mainstream media won't cover. It is their "alternative media network, a hybrid counterculture of entertainers, journalists, and commentators" (Lewis, 2018a). Likewise, it is an informational cornerstone for many unfounded conspiracy theories, ranging from the Pizzagate theory, which accused Democratic elites of being engaged in child trafficking, to QAnon, which states that Robert Mueller is not investigating the possible connection between Donald Trump and Russia but is rather engaged in "draining the swamp". It is a place where they can connect with each other, talk, exchange opinions, discuss events like Charlottesville or the Parkland shooting, mobilise their base and recruit new members.

THE FAR RIGHT ON YOUTUBE

When the head of InfoWars, Alex Jones, who is now banned from YouTube (Kaiser, & Rauchfleisch, 2018), was regularly going live on the site to promote conspiracy theories or far-right talking points, he had over 2.2 million subscribers. His most popular videos had over 10 million views. When the shaken parents, teachers and students spoke out after the shooting at Marjory Stoneman Douglas High School, Jones denounced them as "crisis actors" (Grynbaum, 2018), i.e., as a group of paid government agents who routinely stage elaborate events to divert attention from the government's

true intentions. On YouTube, Alex Jones was a beacon among conservative, conspiracy and far-right channel operators. He had and still has a large devoted fan base that shares his content across multiple platforms, which makes him a ubiquitous figure in the far-right alternative media network.

When talking about online misinformation, bots, echo chambers, filter bubbles and all the other concepts that might make anyone fear for our democracies, we usually talk about Twitter and Facebook (Kaiser, 2018). Much less attention is paid to the 1.5-billion-users-in-a-month (Wojcicki, 2017) social media behemoth YouTube, the second most visited website in the US and worldwide (Youtube.com Traffic Statistics, 2018), which US teens use much more frequently than Facebook or Twitter (Keeping Up with Generation App, 2017), and which is increasingly also being used as a news source (Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2017). The sociologist Zeynep Tufekci even called YouTube "the Great Radicalizer" (Tufekci, 2018). While watching one of Alex Jones's videos won't radicalise you, subscribing to Alex Jones's channel and following the ever-more-radical recommendations that YouTube throws your way might. This radicalisation is bolstered by recommended videos, which can take a viewer down an ever more radical rabbit hole. But the most powerful mechanism might be subscriptions, which let users curate their own homepages that consistently reaffirm a particular political worldview.

ANALYSING 13,529 CHANNELS

In March 2018, i.e. before Alex Jones was banned, we followed YouTube's recommendation algorithm wherever it took us. We started off with 329 channels from the political right, 543 from political parties and politicians, the top 250 US mainstream channels (from Socialblade.com) and 234 channels from the political left. This initial list was based on what scholars, the Southern Poverty Law Center, journalists and users on Reddit threads and Quora labelled as right or left. In our next step, we then collected all channels that these 1,356 channels recommended themselves on their channel page, which added 2,977 channel to the total. Next, we employed the snowball method: we followed YouTube's channel recommendations for our starting set in three steps. With each step, the number of channels grew. Ultimately, we ended up with 13,529 channels. We then visualised these results to create a map of YouTube's universe. Each channel is a node, and each recommendation from one channel to another is an edge.

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THIS IS AN ARTICLE BY **JONAS KAISER AND ADRIAN RAUCHFLEISCH**

This article was first published on 11 April 2018 on Data & Society's Media Manipulation Blog.

Jonas Kaiser is associate researcher at Alexander von Humboldt Institute for Internet and Society and affiliated at the Berkman Klein Center for Internet & Society at Harvard University. His research is located at the intersection of digital and political communication. Jonas Kaiser's research interests are online extremism, public sphere theory, online misinformation and digital methods.

Adrian Rauchfleisch is Assistant Professor at the Graduate Institute of Journalism at the National Taiwan University and co-founder of the think-tank Zurich Institute of Public Affairs Research.

YOUTUBE'S GALAXIES

There are some general observations: we can see the mainstream island in the middle of the map (see visualisation on the right); it consists of let's players (i.e. people that play video games on YouTube), pranksters, YouTube personalities, cat videos or late night shows. South of that is the music ecosystem, with Justin Bieber, Katy Perry and Rihanna. To the north-east of the mainstream is the kids entertainment section. West of the mainstream lie the political communities. Here, the liberal and progressive community (green) is clustered around The Young Turks channel. These communities include media outlets like CNN but also channels by Barack Obama, Elizabeth Warren and Bernie Sanders. This community is closely connected to two other political ones that we labelled the *far-left* and the *far-right*. While the far left consists of communist, socialist or anarchist channels, the far right includes the so-called alt-right as well as white supremacists. But we can also see that the far left is not particularly big, and while they connect to the liberal and progressive community, the connection is not mutual: the far left on YouTube is not very visible when you follow the platform's recommendation algorithms.

For comparison: YouTube's most successful gamer and personality, Pewdiepie, has over 60 million subscribers. Justin Bieber has 33 million. Superwoman has 13 million. Simon's Cat has 4 million. Stephen Colbert has 4 million. Meanwhile, Alex Jones's channel used to have 2 million subscribers. And although this seems comparatively low, the question is compared to what. Barack Obama's channel has 552k subscribers, Donald Trump's has 112k, the official GOP channel (Grand Old Party, synonym for The Republican Party) has 38k and the official Democratic channel has 9k. Within the political communities, Alex Jones's channel is one of the most recommended ones, and, as we will show, it connects the two right-wing communities.

LOCATING THE FAR RIGHT

Our algorithm has identified two closely connected communities that discuss right-wing politics. The first community is closer to mainstream conservative politics. Although prominent politicians from the GOP and the GOP channel itself are part of this community, they are, by YouTube's metrics (subscribers, views, etc.), not popular. The biggest channels in this community (that is, the most

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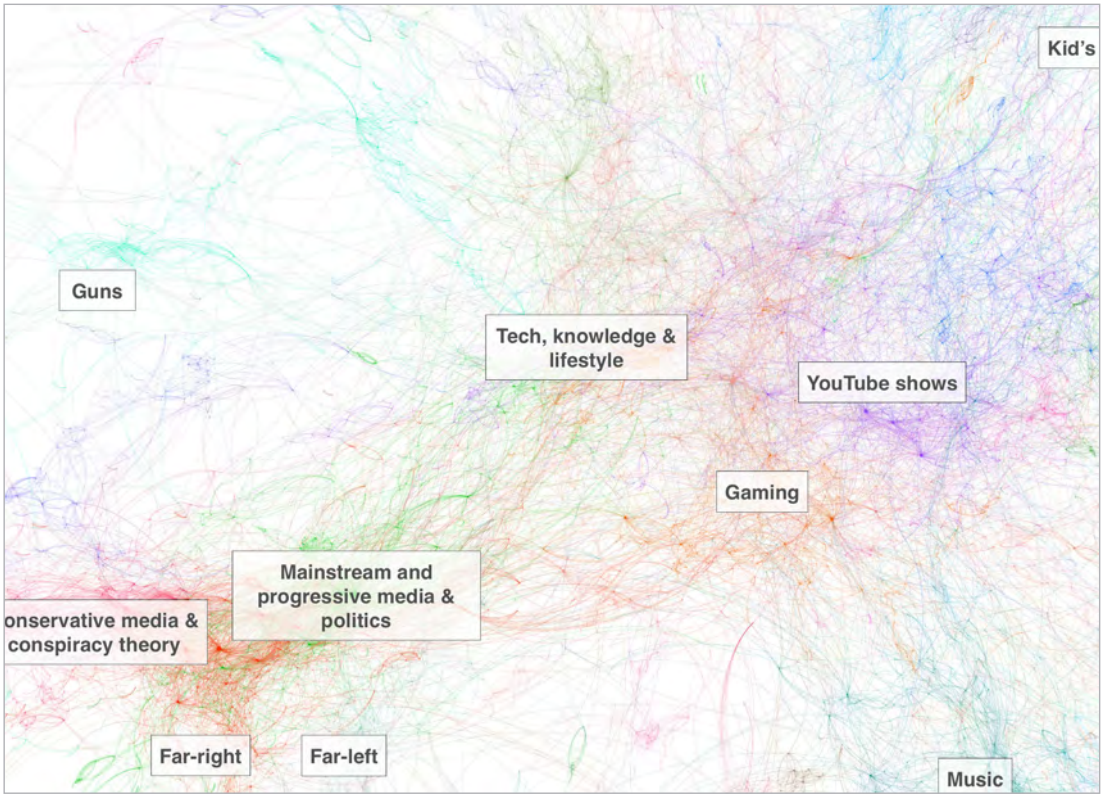
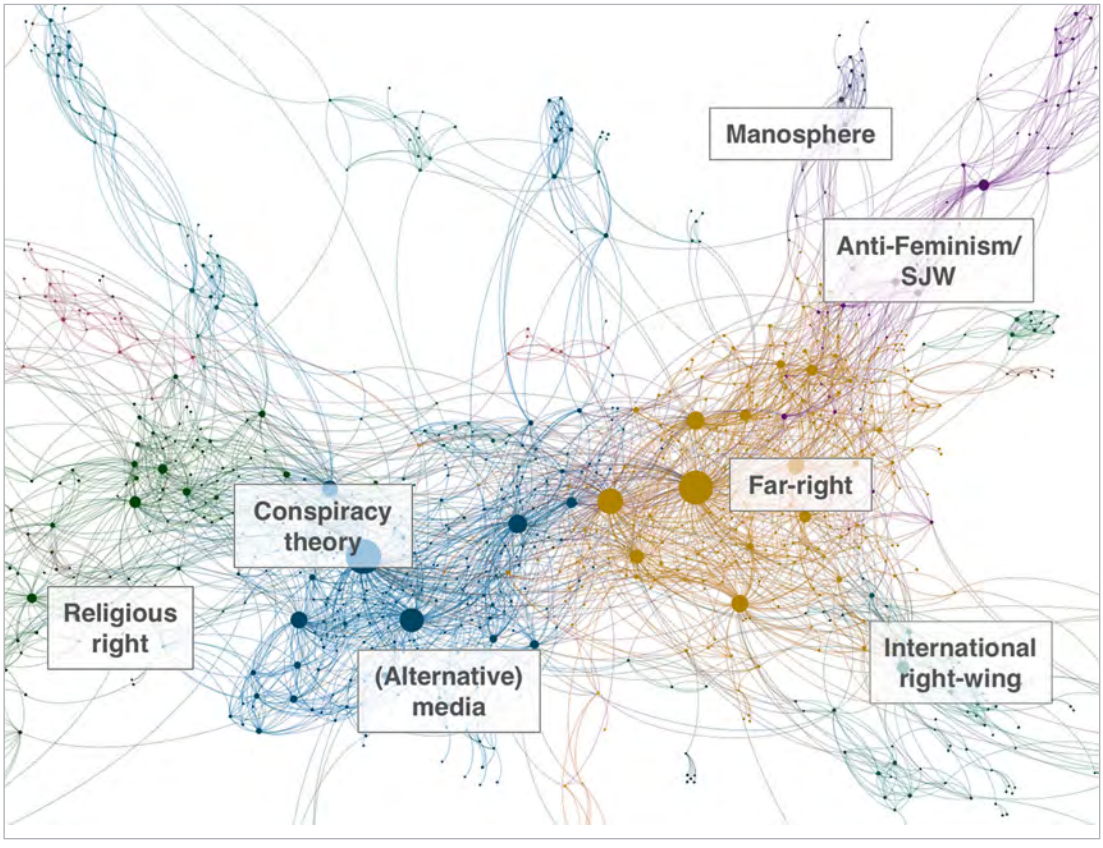

Kid's
Guns
Tech, knowledge & lifestyle
YouTube shows
Gaming
Mainstream and progressive media & politics
onservative media & conspiracy theory
Far-right
Far-left
Music


Manosphere
Anti-Feminism/ SJW
Far-right
Conspiracy theory
Religious right
(Alternative) media
International right-wing

highly recommended) are Fox News, BPEarthWatch and Alex Jones. Even though this is the more mainstream cluster of right-wing politics, this community that YouTube's algorithms enables ranges from conservative media and politicians to conspiracy theorists.

We consider the second community the far right. It ranges from right-wing extremists to red pillers (a misogynistic and anti-feminist community that posits that women are in charge of society – accepting this "truth" is taking the "red pill" – and thus will often refer to the "teachings" of pick-up-artists to get what they want, i.e. sex). For example, it includes so-called alt-right personalities like Richard Spencer or Brittany Pettibone, but also David Duke and Styxhexenhammer666. It also is not limited to the US; it includes right-wing extremists from Europe.

Next we focus on the two right-wing communities and how YouTube connects them (bottom visualisation on previous page). We are able to identify several distinct communities with a community detection algorithm, but we see more of the same: YouTube lumps Fox News and GOP accounts into the same community as conspiracy theory channels like Alex Jones's channel. As the most recommended channels in that community were media outlets, we labelled it *(Alternative) media*. We labelled the other central community *far-right*, as it consists of alt-right and alt-light channels as well as those of white nationalists. In addition, there is also a community that focuses on conspiracy theories, one that mostly publishes videos against political correctness or feminists and in favour of the manosphere. There are also clusters of the religious right and the international right wing. Indeed, some communities are more closely connected than others, but for YouTube's recommendation system, they all belong in the same bucket. This is highly problematic for two reasons. First, it suggests that being a conservative on YouTube means that you're only one or two clicks away from extreme far-right channels, conspiracy theories, and radicalising content. In addition, YouTube's algorithm here contributes to what Eli Pariser has called a "filter bubble", that is, an algorithmically created bubble that "alters the way we encounter ideas and information" (Pariser, 2011, p.10).

THE ALGORITHMIC THOMAS THEOREM

No one knows what exactly goes into YouTube's channel recommendations. It is safe to assume that the factors that contribute to it include users' viewing histories,

preferences and activity overlaps as well as channel owner recommendations. When we applied our method to the German case, we were able to identify a YouTube-created right-wing filter bubble. Think of it this way: YouTube's algorithms are not creating something that is not already there. These channels exist, they interact, their users overlap to a certain degree. YouTube's algorithm, however, connects them visibly via recommendations. It is, in this sense, an algorithmic version of the Thomas theorem, which famously suggested that "If men define situations as real, they are real in their consequences" (Merton, 1995). We could thus say that if algorithms define situations as real, they are real in their consequences. And we might add: and potentially shape future user's behaviour. As our data shows, the channel recommendations connect diverse channels that might be more isolated without the influence of the algorithm; this consequently helps to unite the right.

Indeed, the far-right in the United States is rather fragmented (Caiani, della Porta, & Wagemann, 2012), which can be traced back to the very different groups (Extremist files, 2018) within the far-right (Zhou, Reid, Qin, Chen, & Lai, 2005), for example, have identified militia, white supremacy, Christian identity, eco-terrorism, and neo-Confederate clusters) and, thus, very different topics (O'Callaghan, Greene, Conway, Carthy, & Cunningham, 2015) and priorities. While we can still identify some of these communities, YouTube's algorithm pushes many channels towards the gravitational centre of a larger right-wing bubble: highly recommended channels such as Alex Jones or Styxhexenhammer666 keep this right-wing bubble connected. Since the so-called alt-right has burst on the far-right scene, these channels have come to act as a bridge between those groups mentioned above

POSTSCRIPT: YOUTUBE'S RESPONSIBILITY

Although YouTube stated that they adjusted their algorithm in 2016, 2017 (Lewis, 2018b) and 2018 (Farokhmanesh, 2018), the questions are: what changed? Do they even see a problem in our findings? And more importantly: do they think they are responsible? After all, their system works, right? If you want gaming videos, you get more gaming videos. If you want rock music, YouTube will recommend more rock music. And if you're into the far right, YouTube, too, has something for you, even conspiracy theories. This calls into question the responsibility of YouTube and its algorithmic pre-selection as these might lead to more radicalisation. So at least with regard to the last question, it seemed as if YouTube would change

after the Parkland shooting: It was reported that some right-wing channels have been banned, and that Alex Jones's videos have received two strikes (Basu, 2018). One more strike would mean the banning of the channel. And Alex Jones even suggested his main channel had been frozen and was about to be banned. Alas, this turned out to be a hoax (Ohlheiser, 2018) (most likely to promote his new channel), and it also turned out that some of these bans and strikes on right-wing channels were mistakes by newly hired moderators (Robertson, 2018). As a result, the content moderators' decisions got reversed. Indeed, it took action by Apple, Facebook and others to convince YouTube to follow suit and ban Alex Jones from their platform. And while Alex Jones has been banned, the question is whether YouTube was fighting a symptom or the underlying issue. ◆

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"If you're doing a horrible job like that, it helps from a psychological point of view to give your task a greater meaning."

“CLEANLINESS IS NEXT TO GODLINESS”
INTERVIEW WITH HANS BLOCK

Recruited from the street, content moderators sit in front of screens for hours, filtering violence and hatred from our social media timelines. They are exploited, mostly left alone with the psychological consequences and hardly anyone knows about it. This is why Hans Block and Moritz Riesewieck, in their documentary film The Cleaners released in Germany in 2018, seize on the current debate about content moderation on social media platforms and accompany content moderators in Manila in their work. Martin Riedl, fellow at Alexander von Humboldt Institute for Internet and Society in 2018, invited Hans Block to an interview at the institute.

Martin Riedl: Content moderation takes place in secret and there’s hardly any talk about it. How did you hear about it?

Hans Block: In 2013, a video showing child abuse was posted on Facebook. This video was shared and liked very often until Facebook finally deleted it. We learned about it and asked ourselves: why does something like this happen? Normally, you don’t see material like that very often on social media, although it exists in the vastness of the internet. So we started the research: how is that done? Are there people that weed out content? Are there machines and algorithms that ensure that we don’t see everything?

A big problem faced by researchers, journalists or documentary filmmakers is that access to the affected people is very difficult. You mentioned Sarah T. Roberts from the University of California in Los Angeles, who was one of the first in this field. Did she help you?

She helped us get an overview of what content moderation means and how it works. The suggestion that one of the most important spots is probably in Manila, the capital of the Philippines, also came from her. She was there herself for a few days and fought her way through a maze of outsourcing companies. In the end, she returned with the suspicion that this work was being done there. We more or less took the baton

from her. That was extremely difficult – these companies do everything they can to make sure that nobody knows this work exists.

Content moderation is a subfield of a so-called new digital precariat. There have long been jobs where people deal with such content, such as police officers. What's new here and why is it important?

The question is not whether we need content moderation. We need people who make sure that content is moderated. Interestingly, one of the film's protagonists also said this: "We can't imagine what social media would look like if we stopped working, even for a few hours. None of us would use social media any more." Police officers are under similar pressure or strain. What's new in Manila, however, is that most of the content moderators are extremely young, between 18 and 20 years old. For a lot of them, this is their first job after graduating from school. The recruitment system works in such a way that people are approached on the street. Even we as filmmakers were approached once and also went through the process. We failed because we didn't have a work visa for the Philippines. The only skills you actually need are rudimentary computer skills. You need to know how a mouse works, a keyboard, perhaps have used Microsoft Word once – but nothing more.

Under what conditions do the content moderators you met live?

Most of the employees are very young. Many of them have never been outside Manila. They don't know where Germany or Syria is on a world map and what conflict is going on there right now. But they decide what Europeans, Americans or people from the Middle East get to post with their own particular background. We also found out that 60 – 70 per cent of the workers are women. But we don't know why. In addition, most content moderators live on the outskirts of Manila – in the slums, where the rubbish piles up. They live there in a small room of 20 square metres with up to eight people.

Are the employees also trained in psychology?

No, many only learn what they are actually doing there during training. For us it was shocking to hear that all the employees we spoke to had actually had the same experience: they only understood what they were going to do when they saw the first training videos – and suddenly had to moderate videos showing child abuse, rape, mutilation and the most terrible accidents. By then, it was too late because they had already signed the contract. The employees have to think twice or even three times about resigning, because their salaries often finance whole extended families.

What coping mechanisms do the content moderators develop to deal with the burden?

If you're doing a horrible job like that, it helps from a psychological point of view to give your task a greater meaning. Based on their Christian convictions, these people want to remove the sins of the world from the internet and sacrifice themselves. In Filipino schools, each classroom has this slogan on the wall: "Cleanliness is next to godliness" – if something is clean, believers feel closer to God. It's almost a Christian mission: we're cleaning up the internet now.

Did your research put you in a position of having to defend your work because it could put people at risk?

The companies employ private security companies that took photos of some of us. These pictures were sent to all employees with a warning not to talk to us. We received threats via Facebook: Stop researching here, piss off. The workers were intimidated with prison sentences and fines. We quickly realised: we can't do this at any price. Only if we can make sure that we're not endangering anyone. Some people were not included in the film because it was not clear whether we could provide them with

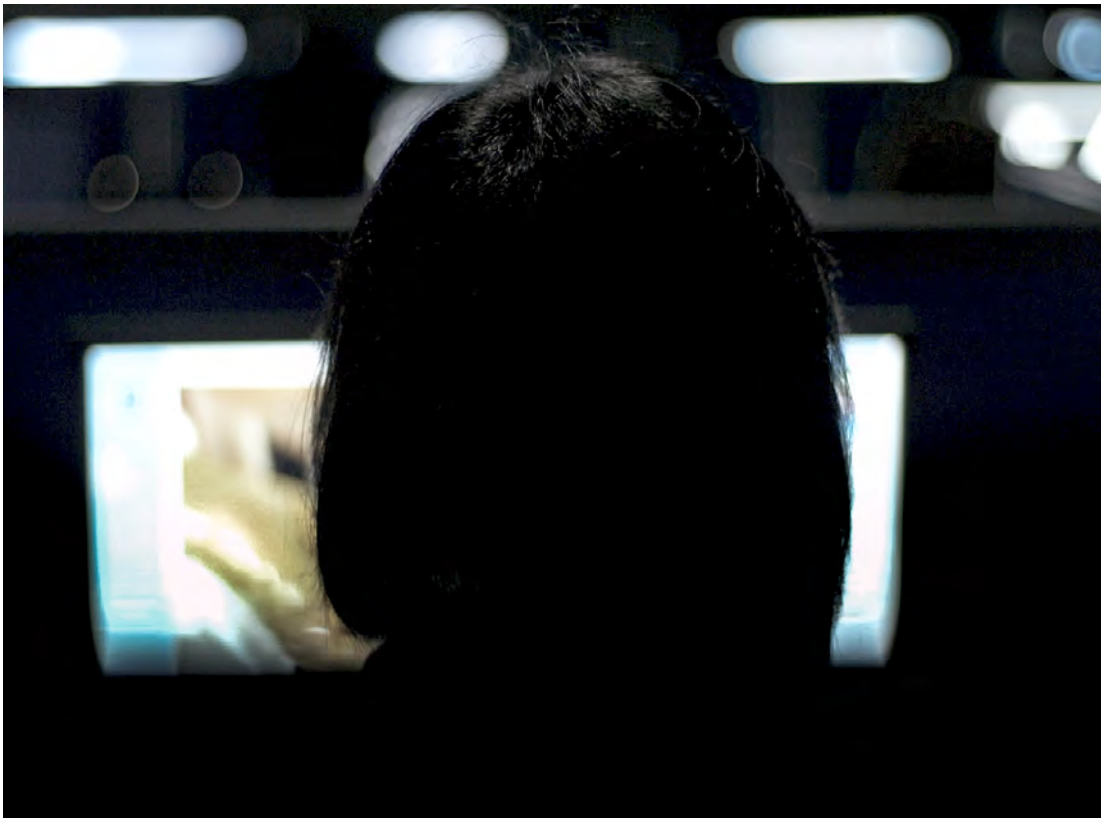
sufficient protection. The only people you see on the screen are those who left their jobs either shortly before or during the shooting.

Your film conveys a lot of dystopian ideas and paints a rather dark picture of the future and the role that social media will play. Have you also found utopias? Or proposals for solutions that can involve civil society more?

Moritz Riesewieck and I are not cultural pessimists. We actually believe in the progress of technology. We're far from believing that the internet should be "closed down". The original idea of the internet, to connect people in a decentralised way around the entire globe by means of a network-like infrastructure, is excellent. But if we're honest, we are currently experiencing a collective disenchantment with a utopia that once existed. Instead of becoming responsible co-creators of a globalised, digital public sphere, we have degenerated into users of a more centrally organised and monitored infrastructure. In the film, we want to question these developments without getting into a general rant about progress. Instead of a general hysteria, we should be asking the right questions: Who sets the rules for our digital world? Who influences these decisions? As users, we should see ourselves more as digital citizens of a society that not only relates to our analogue lives, but also to a digital sphere that we want to intentionally shape and that we are also critically questioning. This is the discussion I want the film to stimulate. ◆

Listen to this interview at the Exploring Digital Spheres podcast:

www.hiig.de/podcast



LISA GUTERMUTH

Scaling research and impacting change

—

How do the world's most powerful internet, mobile and telecommunications companies treat their users' freedom of expression and privacy? The Ranking Digital Rights 2018 Corporate Accountability Index found sobering answers.

The 2018 Corporate Accountability Index ranked 22 of the world's most powerful internet, mobile and telecommunications companies based on their disclosed commitments and practices affecting users' freedom of expression and privacy (Ranking Digital Rights, 2018). The findings were sobering: there is inadequate disclosure across the board, and although more than half of the companies evaluated have made meaningful improvements since the 2017 index, they still fall short in disclosing basic information to users about the design, management and governance of digital platforms and services that affect human rights.

The aim of the Corporate Accountability Index, however, is not only to identify poor disclosure. The methodology and indicators provide a clear roadmap for companies to improve their commitments to privacy and freedom of expression. Furthermore, the openly published methodology enables other researchers to use it to evaluate more companies than the 22 ranked by the main Corporate Accountability Index. Now in its third iteration, the impact of the index is clear: between 2017 and 2018, we documented meaningful improvements by 17 of the 22 companies ranked in both years (see visualisation on page 55).

IDENTIFICATION

By evaluating influential internet, mobile and telecommunications companies over time, Ranking Digital Rights (RDR) has identified gaps in disclosure and trends that are otherwise likely to disappear without trace. "Data breaches are a huge concern. And yet Apple was the only internet and mobile company evaluated to disclose any information about how it responds to data breaches. AT&T, Vodafone and Telefónica were the only telcos to do so", said RDR director Rebecca MacKinnon. At the same time, RDR has seen improvements in company disclosure on this issue since last year's index. One example of things moving in the right direction was the following: while most companies provide some disclosures about how they enforce terms of service (Process for terms of service enforcement, 2018), until recently companies have made little effort to reveal any data about the volume and nature of the content and accounts they restrict for violating the company's rules (Data about terms of service enforcement, 2018). In 2015, no ranked companies had any disclosures on this indicator. By the time the 2017 index research cycle was complete, three companies had started to make some disclosures, and by the time the 2018 index was published, four companies had done so. Further, just days before the 2018 index was

published, YouTube released a transparency report on Community Guidelines enforcement, which represented a significant step forward, both for the company and for the effort to get other companies to see the value in disclosing this type of data (YouTube-Community-Richtlinien, n.d.). At the same time, Facebook also released further insight into their interpretation of their Terms of Service and Community Guidelines (Bickert, 2018). While these recent changes aren't reflected in the 2018 index scores because they happened after the research cut-off date for this cycle, these improvements could signal a shift to more and more companies publishing terms of service enforcement data, which we expect to be able to reflect in the 2019 index.

RDR's findings highlight areas where companies are improving disclosure, as well as areas where disclosure is severely lacking. By conducting and presenting the research in this way, researchers, the public and the companies themselves can see how they stack up compared to each other, as well as where they can improve, creating competition to be the most transparent about their policies. For an example of how this plays out, South Korean internet company Kakao's blog post about the 2018 index features the company's leading performance on several indicators relating to handling user data (Kakao Policy Industry Research, 2018). Further, the methodology and company-specific recommendations serve as a roadmap for companies to make improvements to their privacy and freedom of expression policies and disclosures.

COMMUNICATION

Conducting quality research and making it clear and accessible is not enough. Company outreach and engagement has been an integral part of the methodology development and research, and ultimately has been critical to RDR's impact thus far. As part of the index research cycle, RDR shares each companies' preliminary results with them, enabling them to provide feedback and ask questions. While the index is based entirely on publicly disclosed information, this process helps companies to identify policies that they can easily disclose or improve upon.

COLLABORATION

RDR is just one initiative in the ecosystem of digital rights research and advocacy. By building this recognition into the design of the project from the outset, RDR

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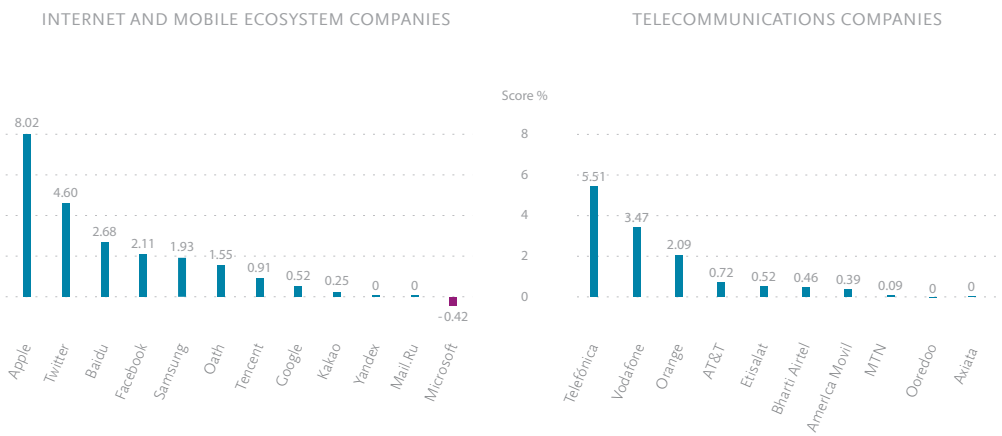
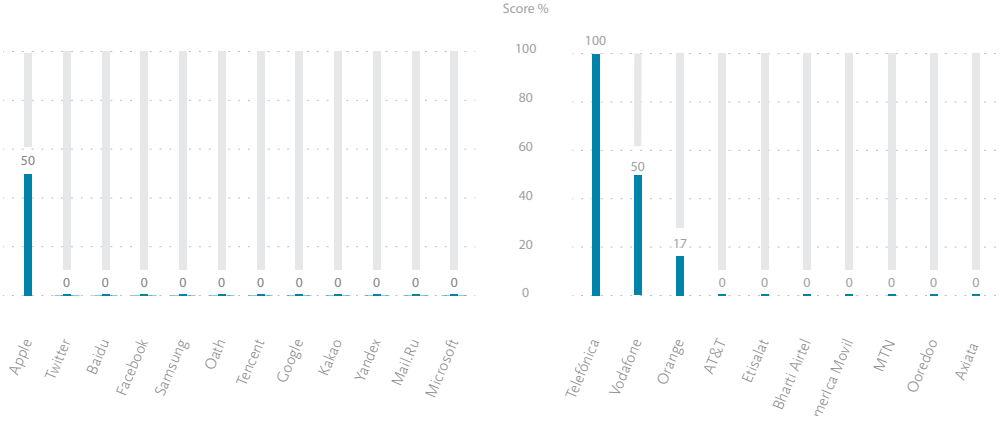


Year-on-year score changes from 2017 to 2018.[1]



How transparent are companies about policies for responding to data breaches?

has enabled collaboration and research that expand far beyond the limits of its own capacity. As a result of publishing the methodology (2018 Indicators, 2018) and making it available to the public under a Creative Commons license, making the raw data (Download the Data and Documents, 2018) available for others to adapt or present in different ways (Internet Monitor Dashboard, n.d.), and being transparent and inclusive around the methodology development and research processes, groups have been able to adapt and apply the research in their own contexts. Some of the new, localised projects include a study assessing the privacy policies of telecommunications companies in Pakistan by the Digital Rights Foundation (Chaudri, Dad, Khan, Zahid, & Kamran, 2016), an evaluation of the privacy and freedom of expression disclosures of mobile operators (Abrougui, 2018) in the Arab region by Social Media Exchange and a ranking of New York City internet service providers (ISPs) (Wiley, Byrum, Ponce, & Romero, 2018) on their respect for privacy by the New School Digital Equity Lab.

CONCLUSION

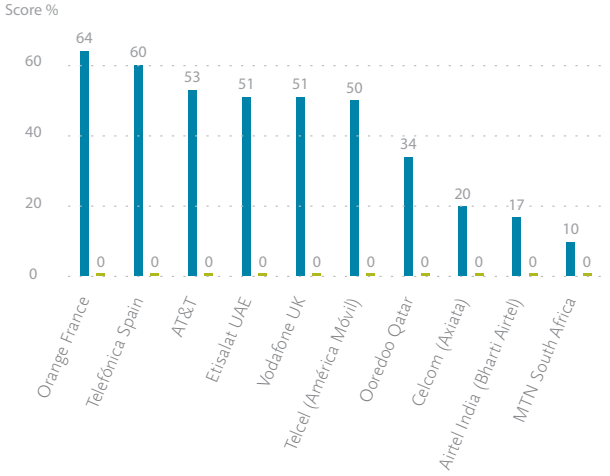
RDR's research reveals gaps in disclosure and tracks changes in companies' respect for privacy and freedom of expression over time. Taking this evidence forward, in several cases where RDR and advocacy partners have pushed for greater transparency, companies have made notable improvements. RDR's approach to research allows for scaling beyond the limited resources of the project and enables advocates and researchers throughout the global digital rights network to build upon this work in order to highlight localised corporate accountability issues and push for greater transparency in their own contexts. To this end, researchers, technologists, journalists and digital rights advocates are encouraged to draw on the research and findings, and build out what RDR has started as a basis for greater corporate accountability and respect for digital rights online. ◆

FOOTNOTE

1 The scores show the performance of the ranked companies on indicators that are part of the 2019 Corporate Accountability Index methodology. Scores are based on a 0 to 100 scale. To see the full methodology: https://rankingdigitalrights.org/2019-indicators

Process for terms of service enforcement
Does the company clearly disclose prohibited content and activities?

Data about terms of service enforcement
Does the company publish data about terms of service enforcement?



How transparent are telecommunication companies about their rules and how the are enforced?

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THIS IS AN ARTICLE BY **LISA GUTERMUTH**

The article was first published on 15 May 2018 on the Digital Society Blog of Alexander von Humboldt Institute for Internet and Society (HIIG).

Lisa Gutermuth is an associate researcher at HIIG. She works as programme manager at the research project Ranking Digital Rights. The Ranking Digital Rights Index provides not only a comparative mapping of how companies are performing in their respect of privacy and freedom of expression, but also has developed a methodology that serves as a baseline of how companies' commitments, disclosures, and policies can be comparatively evaluated.

FILTERED AWAY

In the newly established HIIG podcast, the institute's researchers talk about their own work and also interview other digital thinkers. In one of the first episodes, Henrike Maier discussed the use and misuse of content that is uploaded by internet users and also addressed the efficiency of upload filters. Henrike Maier, former doctoral student and curently associate researcher at HIIG, focuses on copyright and media law as well as European law.

"The word remix can mean different things to different people, depending on the genre they're active in. For example, in music it means something very specific; but in general, one might say that that a remix is a combination of pre-existing material to form a new work."

Henrike Maier

"On the big platforms, like Facebook or YouTube, the vast majority of content consists of one-to-one uploads, which are non-transformative copies of entire works. Nevertheless, one needs to remember that hundreds of hours get uploaded to YouTube every minute, so even if just a fraction of this content is considered transformative remixes, the absolute number of them will still be huge."

Henrike Maier

"Platforms employ filters to detect copyright infringing material that users may upload. For the filter to work, you will need a reference database, so basically a database of all kinds of movie clips and songs and so on. Then, when someone uploads something, it gets transformed into a numerical value, a so-called hash value, which gets compared against this big database, to check whether there is a match, meaning whether this content matches something that is in the reference database. And if it does, the holder of the rights gets a notification (...). For example, on YouTube, the holder may then decide whether they want to monetise it by placing ads and then they will get the revenue, not the uploader; or they may block it, globally or for a specific country."

Henrike Maier

"The problem is that these filters are only able to detect matches, and that is not the only important factor in evaluating whether something is a copyright infringement. So, the first step is to determine whether something was copied (...), but then you need to have a second step and to ask if there is a justification for copying it: does the user have a right to copy this and use it as a quote, or a parody (...)? And that is something the machine cannot do."

Henrike Maier

"A filter that is looking for matches is never going to be able to detect a parody, because these are very difficult questions, where even lawyers may disagree. (...) At least for the near future, it does not look like filters are going to be reliable in that way."

Henrike Maier

This podcast and more episodes can be found on www.hiig.de/podcast

ALEXANDRA GIANNOPOULOU

The proposed Directive on Copyright in the Digital Single Market: a missed opportunity?

The debates about Article 13 of the proposed European Directive on Copyright in the Digital Single Market gained considerable attention in 2018, with YouTube being one of its most vocal critics. From a legal point of view this is not the only passage of the proposal that needs to be examined more closely.

The negotiations for the long-awaited European directive are progressively reaching their endpoint, with the closed-door trilogue process – between the European Parliament, the Council of the European Union and the European Commission – being the final chapter of the saga. In its current form, the proposal aims to modernise copyright rules in order to address the *value gap*. However, the end result risks being harmful to the way we communicate, create and build on the internet.

From memes to code and from content remix to distribution of news snippets, the effects of the new directive will be significant for all aspects of internet uses. It has been a long process and the fate of some of the most controversial provisions remains uncertain. What has happened so far? In July 2015, the European Parliament published its resolution on the assessment of the implementation of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society. It was originally drafted by the Member of the European Parliament (MEP), Julia Reda. The text evoked emotional reactions, indicating that an agreement on the precise content of the necessary revision would not be easy to reach. The European Commission introduced the initial proposal in September 2016. Two years later, and following various deliberations and voting processes, the trilogue negotiations are reaching an endpoint.

The reason why existing copyright rules were deemed necessary of modernisation relates to the reduction of the value gap. This term describes the disadvantageous distribution of revenue between copyright holders and the different players involved in the dissemination of content online, which has shaped the current image of the proposed text. In this context, the articles provoking the biggest controversy among MEPs, civil society and European citizens are Articles 11 and 13 of the proposal. At the same time, proposed amendments to the exceptions and limitations to copyright could prove beneficial for improving the desired balance between users and rightsholders. It also would contribute to establishing the desired digital single market.

THE CREATION OF A NEW PUBLISHERS' RIGHT

Article 11 of the proposed directive introduces an exclusive neighbouring right for press publishers concerning the digital use of their publications.

Under this right, re-use of large-sized snippets will only be allowed after the negotiation of a license with the publishers. This right will last for 20 years from the date of publication of the news piece. The Explanatory Memorandum relates the creation of the right to a "fair sharing of value"[1] that is necessary to ensure the sustainability of the industry, as "press publishers are facing difficulties in licensing their publications online and obtaining a fair share of the value they generate".

In principle, short excerpts from news articles such as the title or a single sentence, do not meet the originality requirement in order to be independently protected by copyright law. Therefore, and in accordance with case law from the Court of Justice of the European Union, the use of such short extracts from news articles does not amount to copyright infringement and a licence is not necessary. Unlike copyright, neighbouring rights do not require originality because they protect an investment and not the intellectual creation of a creator. Thus, in the case of press publishers, the introduction of a neighbouring right would create exclusive rights, even for small extracts or news headlines, and reusing these extracts would require explicit permission.

The introduction of a neighbouring right is used as a remuneration strategy against the declining market for commercial news and the predominant role of a small number of online platforms in that market. In the current normative framework, press publishers already possess legal tools to ensure remuneration. More specifically, they already have a non-negligible arsenal at their disposal via both the protection of the investment made through the European sui generis database right and the copyright agreements for original news articles.

BARRIERS TO FREEDOM OF INFORMATION

Notwithstanding its purported benefits, the proposed right has already been subject to heavy criticism: it seems unlikely to fulfil the purpose for which it was created nor will it foreseeably address the current issues afflicting commercial publications and their business models. For example, in countries where such a right has already been applied, no financial benefit to publishers and journalists has been observed (Calzada, 2016). More than 100 MEPs and the overwhelming majority (Academics against Press Publishers' Right, 2018) of academics in Europe have spoken publicly against Article 11. They note that it will create very broad

intellectual property rights in news or other information and that it will block a vital feature of democratic societies, which is the free flow of information. What's more, the broad scope of the proposed right adds to the already existing uncertainty (Bently, 2016). If mainstream news publications are the main focus of this article in the directive, what about scientific publishers or blogs?

An unpublished study (Online News Aggregation, 2017), conducted by the Commission's Research Centre, contains evidence that raises concerns about the adoption of the new right. According to this paper, the objective behind such a right will not be achieved given that "the available empirical evidence shows that news aggregators have a positive impact on news publishers' advertising revenue. That explains why publishers are eager to distribute their content through aggregators".

Finally, the consequence of creating an insufficiently demarcated new right is that it becomes impossible to refer to a news article with its title or through a link, thus creating barriers to freedom of information on the internet. According to the proposed amendments and the current state of the negotiations, private and non-commercial uses along with hyperlinking and uses of insubstantial parts of a publication may be excluded from the scope of the right. However, the final version of this article is still subject to modifications as the negotiations move forward.

THE "CENSORSHIP MACHINE"

Article 13 of the proposed Directive addresses the "use of protected content by information society service providers storing and giving access to large amounts of works and other subject-matter uploaded by their users". According to the relevant provision of the original text proposed by the European Commission, providers are required to take measures "such as the use of effective content recognition technologies" in an appropriate and proportionate manner in order "to ensure the functioning of agreements concluded with rightholders and to prevent the availability on their services of content identified by rightholders in cooperation with the service providers". The initial proposal of Article 13 thus requires that platforms hosting protected content enforce copyright infringement filters. Whether this provision will remain intact after the end of the trilogue discussions remains to be determined.

The potentially disastrous consequences of Article 13 in its current state have been highlighted by the Special Rapporteur (Mandate on the Special Rapporteur, 2018) on the promotion and protection of the right to freedom of opinion and expression, by the majority of European copyright academics (The Copyright Directive, 2018), internet pioneers (O'Brian, & Malcom, 2018), civil society organisations (The #SaveYourInternet, 2018), creators (Create · Refresh, n.d.), users (Stop the censorship-machinery, n.d.), and the media (Malik, 2018). Recently, a coalition of copyright holders from the audiovisual sector and from the sports industry have issued formal letters to the European Commission requesting that Article 13 be deleted or that exceptions be carved out for their respective sectors. The letter points out that in its current form, the article undermines the rightsholders and reinforces the power of platforms instead of addressing the value gap[2]. More broadly, multiple sectors have emphasised the economic consequences, the legal risks and the overall damaging implications of the application of Article 13, "which can hardly be deemed compatible with the fundamental rights and freedoms guaranteed under Articles 8 (protection of personal data), 11 (freedom of expression) and 16 (freedom to conduct a business) of the Charter of Fundamental Rights of the EU" (Senftleben, Angelopoulos, Frosio, Moscon, Peguera, & Rognstad, 2018).

LEGAL REUSE OR COPYRIGHT VIOLATION?

The scepticism around copyright enforcement through automated content filtering also stems from the fact that there are (to date) no technological filters that can accurately make the distinction between legal reuse of copyrighted content and copyright violation. In most cases, human intervention is required to assess the validity of the violation claim and to examine whether specific content can be published as a result of the application of an exception to copyright. In this scenario, the removal of content that is legally produced and published risks being classified as a disproportionate limitation to the users' and creators' freedom of expression.

Furthermore, the use of automatic filtering by algorithms creates an unwelcoming environment for sharing content such as video remixes, memes, code, and open license projects. Due to their inherent function, content filters preemptively prevent material from being uploaded or automatically remove any seemingly unauthorised use of copyrighted material irrespective of the legitimacy of the

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THIS IS AN ARTICLE BY **ALEXANDRA GIANNOPOULOU**

The article was first published on 11 September 2018 on the Digital Society Blog of Alexander von Humboldt Institute for Internet and Society (HIIG), it was updated in December 2018.

Alexandra Giannopoulou is a postdoctoral researcher at the Blockchain and Society Policy Lab at the Institute for Information Law, University of Amsterdam. She is an associate researcher at the Institute for Communication Sciences in Paris and she is a former fellow at HIIG in Berlin. Her current research focuses on privacy and the blockchain, she has worked on open data and AI, and her PhD thesis examined the Creative Commons licences.

use. For example, if the use in question falls under one of the exceptions to and limitations of copyright, which are heterogeneous (Giannopoulou, Nobre, & Rammo, 2016) under member states' legislation, there is no need for an express authorisation. However, and as the famous example of memes demonstrates, if the parody exception cannot be invoked because the relevant provision is not incorporated in national law[3], memes risk being considered a violation of the rightsholder's copyright, provided that no express license exists or that the disputed image is not already in the public domain.

Finally, because of the unclear scope of Article 13, content providers such as TripAdvisor and Instagram could be found subject to the filtering obligation. In order to ensure compliance, the platforms will have to conclude licences with all rightsholders on a global scale for a vast number of copyrighted works. The prerogatives of the licensing obligation have yet to be clarified in the negotiations. The current licensing landscape shows that it will be extremely difficult to reach such agreements. Additionally, and as it has been pointed out by multiple actors in the industry[4], the risk of liability for platforms that fall within the scope of Article 13 could ultimately shrink future investments in new online services, especially ones developed by small and medium-sized businesses. Thus, the lack of diversity will ultimately prompt a stronger concentration of the market, centring on providers already in a significant position. Finally, Article 13 does not reflect the principles that led the Court of Justice of the European Union to develop its case law (Judgment of the court in case C-70/10, 2011) against the introduction of general monitoring measures.

IMPROVING ON THE EXCEPTIONS AND LIMITATIONS TO COPYRIGHT

The current version of the proposed directive has made significant steps towards addressing inefficiencies in the existing exceptions and limitations to copyright introduced by the 2001 directive. These advances signal progress in the member states' attitudes towards addressing the way that users engage with protected content.

The most notable example is the restructuring of the educational exception. According to the proposed directive, educators and learners are free to use copyrighted material for educational purposes. Besides the positive amendments to the existing provision, a lot of inefficiencies remain unaddressed. Firstly, the

narrow interpretation of educational institutions leaves out of the scope of the exception all non-formal public education as well as online dedicated material, thus limiting access options for learners both in the digital sphere and in the physical world. Second, the restrictive framing of the permitted uses of digital material to "the premises of an educational establishment or through a secure electronic network accessible only by the educational establishment's pupils or students and teaching staff" leaves ample room for restrictive interpretations that would leave a lot of digital education uses out of the scope of the exception. Third, the relevant provision in the article, which specifies that the copyright limitation does not apply when "adequate licences" are available in the market, brings an additional layer of complexity to the harmonised enforcement of the educational exception. For example, there is no public-interest safeguard limiting rightsholders from concluding licences that further restrict the educational exception provisions described in the directive. In practice, there are big variations in existing collective licensing agreements in terms of the interpretation of standard terms related to the scope of the right or to its subject matter (Nobre, 2018). Consequently, fragmented licences may hinder the harmonisation of the legal framework of exceptions and minimise the impact of the introduction of a uniform educational exception provision in the directive.

A MILESTONE FOR TECHNOLOGY

In a similar context, the addition of the text and data mining (TDM) exception constitutes a milestone towards better collaboration between technology and copyright. TDM refers to an ensemble of computer science techniques. It is used to extract knowledge from large digital data sets, by looking for patterns that are usually difficult for individual researchers to notice. According to the directive, TDM practices shall no longer require a separate licence for the reproduction and extraction of copyright-protected works if the acts are performed by researchers in the context of scientific research for public research institutions. Current licensing practices for TDM have been proven to create "a negative association between copyright and innovation" (Handke, Guibault, & Vallbé, 2015). For example, in the case of scientific publishing, text and data mining is often expressly left out of licensing agreements and "gaining permission to mine content from various publishers can be hugely complex" (Geiger, Frosio, & Bulayenko, 2018, p. 13). A chilling effect then occurs, making the research output based on data mining practices significantly smaller than would otherwise be the case because of the

lack of proper legal tools and permissions (Handke et al, 2015). Admittedly, introducing the exception in question is "essential to unlock the potentiality of European research and unburden researchers from legal encumbrances and uncertainties" (Geige, Frosio, & Bulayenko, 2018, p.24).

INNOVATION POTENTIAL FOR SOCIETY

However, there are limitations that risk hampering (Margoni, & Kretschmer, 2018) the efficiency of introducing such an exception to copyright. For example, the introduction of an exception that is not mandatory for all member states does little to help us achieve the overall goal of benefiting from the potential of text and data mining because of the risk of fragmentation among different territories. Also, the European legislative body focuses exclusively on mining practices engaged in by researchers and it provides a narrow definition of research organisations. Consequently, the context of the exception disregards the fact that TDM is not only an important tool for research. It is also essential in the context of journalism, independent research or library uses. The endeavour to create a "digital single market" falls short when it comes to recognising the innovation potential that TDM holds for society in general. What's more, creating a legal framework favourable to TDM requires the creation of safeguards against both contractual and technical obstacles overriding the implemented exception.

Finally, the reluctance of lawmakers to introduce exceptions in favour of remixing copyright-protected works or publishing pictures of artworks found in public places signifies that European copyright will still rely predominantly on licences in order to foster a digital remix culture and that the exceptions will play a more limited role. Licensing represents a more traditional approach to copyright and culture and does not fully correspond with the current norms of content production and dissemination. The legal uncertainty and the high transaction costs in securing licensing agreements for modern uses of copyright content is creating a chilling effect for users and creators. While more inclusive exceptions such as the one regulating user-generated content or the freedom of panorama were proposed by the report drafted by Julia Reda, they were not included in the proposed reform of the directive because they were viewed "as a polarising example of the extension of users' rights online" (Dulong de Rosnay, & Langlais, 2017). This approach does not correspond with the purported goals of the reform: to ensure wider access to content, to adapt exceptions to a digital and cross-border environment, and to achieve a well-functioning marketplace for copyright.

The last set of trilogue negotiations did not manage to arrive at a consensus on the multiple controversial issues related to Article 11, Article 13 and others. The next set has been scheduled for 14 January 2019 and it will be presided over by the new Romanian presidency, which replaces the Austrian one. How the change of the presidency will affect the fate of the text and the negotiations remains to be seen. ◆

FOOTNOTES

1 Unless otherwise noted, citations refer to the Directive of the European Parliament and of the Council on Copyright in the Digital Single Market (European Commision, 2016).

2 See letters issued on 1 December 2018, "Proposed Copyright Directive – Value Gap Provision Audiovisual and Sports Sectors Proposed Way Forward for the Value Gap Provision: European Commission proposal or music-sector specific approach" and on 10 December 2018, "Audiovisual sector proposed way forward for the value gap provision: no new safe harbour or sector carve-out".

3 The parody exception is implemented in various member states such as France and Belgium but does not exist in others such as Greece.

4 For example, the Computer & Communications Industry (CCIA) have submitted an opinion to the Office of the US Trade Representative related to a new trade agreement with the EU, noting that "if the final EU reform does include these provisions, there would likely be a corresponding increase in risk for US platforms doing business in the EU, resulting in significant economic consequences for the US digital economy, which depends on the EU market".

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COMMENT

Translating law into code – why computer scientists and lawyers must join forces

Sibylle Schupp, professor of computer science at Hamburg University of Technology, was a visiting researcher at Alexander von Humboldt Institute for Internet and Society in 2018. In line with her focus on methods for software quality assurance, she deals with legal issues and the missing interdisciplinary exchange.

As academic disciplines, computer science and law are really far apart: one is a mathematical or perhaps engineering discipline, while the other is a social science. From this perspective, there is not much common ground. But in practical terms legal provisions exist that tie the two disciplines, simply by including in the legal text references to IT technologies. A good example is the GDPR[1], which refers to "the state of the (technological) art" and even directly calls for "appropriate technical" matters. In fields like privacy protection, thus, lawmakers seem to see computer science as an aid. But at the same time it's obvious that both disciplines need to find a common language – laws have to be translated into formulas, so that technology can deploy them.

For privacy regulations, cryptography and the whole toolbox of privacy-enhancing technologies provide software solutions for individual subtasks – but what about an entire app or a legacy system? On this note, I propose a different kind of support: code checking. By code we mean *software code* and by *checking* we mean automated compliance checks. In computer science, automated code checks are very common and have a wide range of applications. Algorithms are used to check whether software can really be trusted to do what it sets out to do, but they can also provide proof that a particular piece of software is sticking to its energy or time budget. Algorithms can also check how well software has been tested or how much it has changed.

So, surely it should be possible to apply these compliance checks to privacy properties and to check (software) code for properties required by (legal) code? Well, it depends. Legal provisions obviously come in English, German or other natural languages and that wording needs to be made more precise before it can be further processed.

Taking again the example of the GDPR, which talks about risks of varying degrees, time of processing and minimal data. All of this leaves open what is measured by *risk*, how *time* is defined and on what scale data sets ought to be *minimal*. From a computer-science point of view, all these terms need to be formally specified – and that requires legal expertise. But this is not the only thing that is needed.

A lawyer certainly agrees that legal interpretations are needed in all these cases, but the crux here is that the algorithmic checker needs to have them in a certain format – as a formula of some kind. For example, they are needed in the form of temporal, deontic or probabilistic logics, which look at truth over time or at truth with respect to ethical or statistical laws. Providing such formulas requires knowledge from computer science. So here we go: legal terms must be cast in a language an automated checker can understand, but the computer scientist lacks the legal knowledge of what to cast, and the legal expert lacks the knowledge what to cast in. What if the two joined forces? What if each key concept of a privacy regulation – time, risk, data minimisation, but also purpose, consent, impact– were scrutinised from both angles, the legal angle as well as the technological angle from computer science? Then, the lawyer would help the computer scientist to build a better compliance checker, and the computer scientist would help to disambiguate a privacy regulation. It is hard to see any disadvantage here. ◆

FOOTNOTE

1 The underlined terms occur in the GDPR (EU General Data Protection Regulation) and all denote concepts that are central in both computer science and law. So, perhaps the two disciplines are not so far apart after all.


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STEFFEN MAU

Status work in the data society: übercapital and hyper-individualisation

Whether we're talking about childcare, credit or consumer goods; our ratings, scores and digital footprints are producing new social classifications. This increasing quantification of the social is leading to new forms of status gains and losses.

Anyone looking for a babysitter on the relevant websites in the USA is immediately confronted with the critical question of trustworthiness and is asked to get informed about it. Entrusting their children to a stranger often leaves parents with a bad feeling and so, until now, they have relied on references from former clients or advice from other parents. Now, however, there's another option that is only a click away: the MyLife.com website offers a reputation score for all adult Americans, which can also be used to test babysitters.

In its online description, it says: "Reputation is more important than credit. Only MyLife provides Reputation Scores based on public information gathered from government, social, and other sources, plus personal reviews written by others." To find out someone else's reputation score, just enter their name and zip code and you will find what you're looking for. The national criminal records, the public internet and the darknet as well as social media and the personal profiles accessible on it are evaluated.

In short, MyLife looks at all personal data that can be evaluated via accessible databases. The customer receives a comprehensive background report, which lists all sub-areas. For those who just want a quick and comparative overview, there is a rating scale from 0 to 5, including a speedometer that goes from red to green. The site's users are enthusiastic! For instance, Luisa says: "You'd be crazy to rent someone an apartment without looking at the background report first – it saves me tons of trouble."; according to Ricardo: "I declined a job offer after I did a background check on the guy who was going to be my supervisor."; Lerrie states: "I felt a lot better about my daughter's new boyfriend after I ran a background report."

This reputation rating system for babysitters represents a general trend: the quantification of the social. The compiling, accumulating, assembling and linking of personal data from very different sources, which becomes possible due to digitalisation, makes it possible to comprehensively track and evaluate people. Leisure time, consumer habits, health and income status, friendship networks, living contexts, information on work environments and potential employers – all this can be collected in a single data set, which can then be used again to promote the "pervasive capitalization of the lifeworld" (Streeck, 2012).

In her talk *Social Order in the Digital Society*, sociologist Marion Fourcade

builds on Bourdieu's ideas and speaks of "übercapital" as a form of capital based on data that becomes visible in this type of data-based classification (2018). Digital status data can become effective as symbolic capital, and it promises considerable social or material returns on reputation, which is why people are also constantly striving for better data. For babysitters, this means that they'll only get hired if their score is good. People can use their reputation to achieve better positions, just as a bad reputation or a dubious image can bring about considerable disadvantages in housing, partnership, credit, employment or other markets. Symbolic capital in the form of status data can thus be converted into material benefits or useful contacts, because others use this information.

It is ultimately the "display of symbolic capital" that ensures that "capital comes to capital", according to Pierre Bourdieu (1990, p. 120). In the case of scores, an individual's chances of preferential treatment are considerable because direct comparisons of the symbolic account balance can be made. It often takes just one click to find out where someone stands. If scores are understood as symbolic capital expressed in the language of numbers, then it is clear that the symbolic in this abstract and generalised form can now be communicated and used much more comprehensively than the traditional, often locally limited or sectoral good reputation.

But what does this development mean for traditional forms of classification, such as classification into classes? Are we facing a digital class society today, which would mean that new collective categories are emerging? This is doubtful, because the data only partly addresses collectives and primarily concerns individuals. The increase in data means that it is possible to classify ever more precisely – the digitalisation of society leads to a "difference revolution" (Kucklick, 2014). Comprehensive collective categories are dissolved in favour of finely chiselled differences. One can imagine this as a kind of zooming in on a group photo that enables us to view individual persons more and more precisely at ever-higher resolution. Instead of fuzzy, large-grained images, we can now see all the details with great sharpness.

Against this background, the advancing digitalisation results in hyper-individualisation, which is based on an infinite number of endlessly combinable observations of differences. Quantifying the social also means the possibility of

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THIS IS AN ARTICLE BY **STEFFEN MAU**

The article was first published on 17 July 2018 on the Digital Society Blog of Alexander von Humboldt Institute of Internet and Society (HIIG). It was a response to the lecture of Marion Fourcade at the HIIG lecture series *Making Sense of the Digital Society*.

Steffen Mau is professor of macrosociology at Humboldt-Universität zu Berlin. His research interests are inequality, political sociology and Europeanisation. Steffen Mau is a member of the Berlin-Brandenburg Academy of Sciences and Humanities, between 2012 and 2018 he was a member of the German Council of Sciences. His most recent book *The metric society. On the quantification of the social* (2019, Cambridge: Polity) deals with the role of numbers in society.

dividing the social. This kind of individualisation is not experienced as liberation or emancipation, but as the exploration of the individual through statistical identification. This type of individualisation is a process of singularising, identifying, locating and distinguishing people within a larger mass.

However, this data-driven hyper-individualisation is Janus-faced, because it requires a collective reference. All self-monitoring data, each health score or each rating cannot exist without standardisation and the connection to collective data. An actuarial assessment of whether someone is driving well or badly depends on how all the other people in the data pool are driving. The babysitter's reputation is especially evident in comparison to those of other babysitters. Social comparisons, norms, risk calculations, purchasing power assessments – they all recognise the individual (or other valuation objects) only in relation to larger entities and on the basis of predefined valuation dimensions. The individual arises from the collective, in other words, as an observation of difference.

This is accompanied by a shift in the regime of social inequality away from class conflict and towards individual competition. (The competitors can, of course, also be universities, hospitals, professions in service roles or states, depending on which unit is in focus.) The conflict concerns the direct confrontation between the parties involved, their struggle with each other, their quest to achieve specific performance goals. Rankings, health scores, fitness points, performance indicators, ratings or likes on social media strengthen the comparative dispositive from which competition directly emerges.

In the data-based competitive society, people struggle individually for scores, places or performance advantages; they no longer do so collectively for power or distributive justice as happened in the society of class conflict. The struggle for power, participation and redistribution has thus turned into a game of overbidding and individual optimisation that undermines the collectivisation capacity of interests. The quantification of the social has the potential to create a new regime of inequality, one in which we are constantly rated and compared with others, in which our status data are used by others to assess and address us and in which we must constantly strive to shine with good data. ◆

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COMMENT

Creating space for interaction and innovation

Thomas Schildhauer, director at Alexander von Humboldt Institute for Internet and Society (HIIG), gives insight into practice-based research and the importance of platforms to exchange ideas.

The interplay between research and practice could help to raise new and highly relevant research questions. Therefore, it is important to create opportunities and spaces to meet and share ideas. Transfer of knowledge between researchers and experts from businesses and the market can happen in many ways, as HIIG has shown in the past with several inspiring formats.

Our Startup Clinics are one such example. In these clinics, we investigated factors that helped or hindered startups in the process of becoming successful by analysing their business models and evaluating the collected data. The clinics provided Berlin-based internet-enabled startups with valuable support and documenting lessons and helped startup founders to solve concrete problems. These problems that startups shared with our researchers were the foundation of our practice-based research approach.

And it wasn't just startups that were interested in the results of our practice-focused research – established companies were too. This prompted us to broaden our perspective. How can established companies and startups work together, and what challenges come up in partnerships between companies with different business cultures, sizes and employee structures? To answer these questions we developed

another format to promote exchange between startup founders, managers of established, medium-sized companies and researchers. In workshops, these experts came together, shared ideas and talked about their specific business problems. So this format gave HIIG researchers important input about the most urgent questions for startups – on how to build up their businesses and cooperate with other companies. Additionally, the practitioners used this platform to learn from each other.

As a result, we conducted a study with content that was generated by multi-faceted research questions and interviews. By looking back and reviewing our own practice, we adjusted our research to create a more meaningful approach that brings together research and practitioners – and established a much-needed exchange platform. ◆

JESSICA SCHMEISS

Will blockchain disrupt your business?

Blockchain has been praised as a technology with the potential to change the way business is done in many sectors. The disruptive power of blockchain technology is still limited. But beyond the hype, there are opportunities for companies to make their current business models more cost-effective and more efficient – in short: to digitalise their business models.

Blockchain, the technology behind cryptocurrencies like Bitcoin, has received much attention in the past two years; it has been praised as "the technology most likely to change the next decade of business" (Werbach, 2018) and "the most consequential development in information technology since the internet" (Tapscott, & Tapscott, 2016). The question arises of whether blockchain technology will really pave the way for disruptive (digital) business models in the near future.

WHAT IS A BLOCKCHAIN?

While the technology itself is highly complex, the underlying idea is quite simple. A blockchain is a method of storing data digitally in a vast global, distributed database that is open to anyone and runs on a network of millions of devices. Trust in this network is established through transparency and mass collaboration, enabled by highly sophisticated encryption technology. Essentially, "blockchain technology allows parties who don't fully trust each other to come to a consensus about the existence and evolution of a set of shared facts without having to rely on a trusted third party" (Greenspan, 2016b). It thus does not create trust, but rather replaces the need for trust with algorithms.

There are a number of key characteristics that make a blockchain such a unique technology and provide a basis for transactions between parties that do not trust each other. First, a blockchain enables *disintermediation*. Each party in the network has access to an encrypted copy of the database and its entire history and can thus record and verify specific events of value – a transaction, an agreement, a contract, ownership etc. No trusted third party is necessary to verify the transaction. Second, a blockchain is *transparent*. All transactions are visible to all parties in the network. Anonymity is widely protected through a unique alphanumeric address that is used for identification. Third, all records are eventually *irreversible*. A transaction that has been entered into the database cannot be altered because it is linked to every previous transaction. Highly sophisticated computational methods are used to ensure that all records in the database are permanent, chronologically ordered and available to everyone on the network. Last, a blockchain in its original form is *non-permissioned* (or public). Everyone who wishes to participate in a blockchain will be granted access. Hence, no central party decides about permissions. Additionally, permissioned (or private)

blockchains have emerged that only allow an authorised set of users to join, read or write.

BLOCKCHAIN AND BUSINESS MODELS

A business model is understood as the way a firm creates and captures value (Teece, 2010). Digital technologies like blockchain impact business models in all industries. However, there is a big difference between digitalising a business model and a truly digital business model. Digitalising a business model means supporting and optimising an existing business with digital solutions like blockchain. Internal digitalisation means the innovative use of digital technologies to optimise production processes along the value chain, for example, an enterprise resource planning (ERP) system across multiple departments and suppliers. External digitalisation in turn refers to the digitalisation of all customer-facing activities, for example, innovative digital service solutions or a webshop. Truly digital business models, which are often also disruptive, only emerge when both dimensions are fully digital. However, this may not be relevant for every business – partial digitalisation along the internal or external dimensions of a business may be sufficient for many businesses (Sauer, Dopfer, Schmeiss, & Gassmann, 2016).

Blockchain technology certainly has the potential to fundamentally change the way business is done in many industries. "It has the potential to create new foundations for our economic and social systems. But while the impact will be enormous, it will take decades for blockchain to seep into our economic and social infrastructure" (Iansiti, & Lakhani, 2017). While the blockchain revolution in terms of disruptive business models may still be years away, existing processes may be optimised and transformed through blockchain in the near future. They will provide a new way of enabling cost-effective and fast transactions between multiple parties: "The average citizen will be comfortably using behind-the-scenes blockchain technology on a daily basis well before public blockchains reach the mass market" (Waters, 2017). With that, blockchain may solve some of the central problems of digitalisation; for example, it will offer a secure and efficient way to manage and track intellectual property, open up manufacturing by providing a way to automate trillions of daily transactions and change enterprise collaboration both inside and between organisations by eliminating expensive third parties currently needed to regulate certain transactions (such as lawyers or banks) (Tapscott, & Tapscott, 2016). Some exemplary use cases for integrating blockchain technology into existing business processes include (Schmidt, & Jung, 2018):

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THIS IS AN ARTICLE BY **JESSICA SCHMEISS**

This article was published first on 8 March 2018 on the Digital Society Blog of Alexander von Humboldt Institute for Internet and Society (HIIG).

Jessica Schmeiss has been a doctoral researcher at HIIG since 2016. Her research focuses on human-centred business design, integrating perspectives from strategic management, innovation management and design research to understand how technology-driven firms design novel business models, organisations and ecosystems.

Data collection in smart factories: In a connected production plant, sensors on trucks, machines and containers owned by different companies deliver information about the current state of a shipping process. The information is collected and displayed in a blockchain that all entities have access to. The completion of a certain transaction triggers the next one and thus optimises the shipping process in a transparent way.

Multi-party approvals in product development: A jewellery company develops new necklaces that are manufactured abroad, and then distributed by the company-owned website. The approval process involves multiple internal and external stakeholders and consists of different steps. Some of these steps are dependent on the fulfillment of other steps, but some are not. All the information about the status of each step is stored in a blockchain and managed through a central approval node.

Asset tracking throughout a product life cycle: Throughout the life cycle of a complex product like an aircraft, transferals, maintenance and repair records, and special events like damages or refurbishments of all relevant parts are stored in a blockchain. Thus, everyone using the final product (the aircraft in this case) can trace the safety and reliability instantly, for example using a specific flight number and an aircraft identification number.

Insurance claim processing: For a complex insurance claim, the pay-out could be triggered automatically through a blockchain. The information stored in the blockchain allows for error-checking, it can initiate approval workflows and it calculates pay-outs based on the underlying policy and the event that has occurred. The insurance can then pay out automatically even without the policyholder having to make a claim or the insurer having to administer the claim.

DO YOU NEED A BLOCKCHAIN?

Based on the use cases described above, the question remains whether all those use cases could have been dealt with on an existing centralised database as well. Generally, blockchains and centralised databases exist in a trade-off between trust and robustness versus confidentiality and performance. Blockchains enable disintermediation through a built-in mechanism for parties to trust each other, and they are very robust due to the fact that data is stored distributedly. Centralised databases are more confidential in that access to certain information can be restricted to a limited number of users and such databases are often much faster

because they do not have to execute the complex computational tasks caused by the sophisticated encryption logic of a blockchain (Greenspan, 2016a).

For many businesses, a centralised database may be fully sufficient to serve their business needs. However, a blockchain can add value if a number of conditions are met. Transactions have to be verified across multiple stakeholders and changes in the database have to be edited by multiple parties. If multiple parties need access, but only one party modifies the database and verifies transactions, a blockchain is not necessary. Blockchain enables trust between untrusting parties about the transactions that occur. If trust is not an issue, meaning if all parties already agree on the transaction attributes at hand, a blockchain is not necessary. Similarly, if there is an existing third party that maintains an authoritative database and settles transactions, the question is if there is anything wrong with continuing to use this third party. Lower transaction costs, faster transactions or the inability to find a suitable intermediary may be reasons to switch to a blockchain-based solution. Lastly, transactions in a blockchain often depend on each other. If transactions in your database are executed independently and do not trigger or influence each other, a centralised database is sufficient to handle these transactions.

BLOCKCHAIN – DIGITALISATION OR DISRUPTION?

Blockchain technology offers many possibilities to fundamentally change the way the economy and society work. While some optimists call it the "second generation internet" (Tapscott, & Tapscott, 2016), others state that the technology is fundamental, rather than disruptive. This means that it will take decades for it to fully come into action, mostly because the question of how blockchain-operated systems can or should be regulated still remains to be answered (Werbach, 2016). In light of this, blockchain technology will most likely not be disrupting your industry with new business models in the next couple of years. What it can do, though, is provide a new, smart way to digitalise business processes and significantly reduce transaction costs. ◆

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YNDIAS OCIDENTALES
Groenlandia
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Tierra del labrador.
Sierras Nevadas.
C. de fortun
Nueuo Mexico
B. Espiritu Santo
Misisipe
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Cañaveral.
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I. de Pajaros.
y.a de Cedros
California
NUEVA ESPAÑA.
Mixtecas
Golfo de Cortes ó Mexicano
CANCER
Cuba.
P. Ballenas.
Roca partida.
Colima
Navidad.
Mexico.
Vera Cruz
Acapulco
S. Domingo
P. rico.
Guadalupe
Jamaica
Honduras
Dominica.
Martinica
R. Miraflores
Panama
Tierra firme
Cara.
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Contepcion.
Arauco
R. de plata
C. de S. Maria
C. Blanco.
P. de baldiuia
P. Deseado.
Osorno
Prouincia de estrecho.
I.as Chiloe.
C. de las birgenes.
Estrecho de Magallanes
C. Negro.
Tierra del fuego.
C de S Salbador que llaman de Horn.
MERIDIANO DE LA DE MARCACION POR LA PARTE OCIDENTAL
Entre los dos Meridianos Señalados Se contiene la nauegacion y descubrimiento que compete a los Castellanos.
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"START TO IMAGINE A DIFFERENT FUTURE" A LECTURE BY NICK COULDRY

The current datafication of society is not only bringing about another iteration of capitalism, but also a new form of colonialism. Of that Nick Couldry, Professor of Media, Communications and Social Theory at the London School of Economics and Political Science, is convinced. At the HIIG lecture series Making Sense of the Digital Society he spoke about the hollowing out of digital society.

"What's happening today in digital societies, where data harvesting seems such a natural, such a basic feature of everyday life, is not just a development or even a new phase of capitalism, as many writers have claimed. It's something even bigger. It's a genuinely new phase of colonialism that will in time provide the fuel for a later stage of capitalism whose full shape we cannot predict yet. [...] In 1500 and for the next 400 years it was territory that was acquired. It was the resources that were acquired, and of the bodies, of course those of slaves, needed to extract value from those resources. Today, the resources being appropriated are us. Human life in all its depth, extracted as value through the medium of data."

Nick Couldry

"It sometimes seems a mystery how we can accept so much with so little resistance. But let's think historically, through a colonial lens. Let's think back to a document used in the early days of the Spanish conquest of Latin America, called the *Requerimiento* or demand. Almost exactly 500 years ago, the document was drafted in 1513 at the Spanish court. Conquistadors would ride up to a mile or two outside a village whose gold they wanted and read out this document in the middle of the night in Spanish, a language they knew the locals did not understand."

Nick Couldry

"The key question is, 'is there an alternative to capitalism of this datafied sort?' Let's remember that until 20 or 30 years ago, there was. We were living in it."

Nick Couldry

"As important research by Virginia Eubanks and others has shown, it is populations who are already vulnerable and poor that are most likely to be harmed by hidden, data-driven judgements made against them by government departments, service suppliers, credit raters, insurers and so on. By the same token, these same people are the least likely to be able to resist. It costs money to mount a legal claim. [...]. A social world is then emerging where vulnerability to and forced acceptance of continuous surveillance is likely to become a leading dimension of inequality."

Nick Couldry

"Perhaps most dangerous of all, we risk losing the habit of expecting that our knowledge of the world around us should be grounded in what people say and how people, not machines, interpret the world; that is, that it should be grounded in our voices. And because it is only that view of the social world that makes it rational to think democracy is worth striving for, we may lose touch with the value of democracy itself – at least as an everyday reality, something we know."

Nick Couldry

"We're still at an early stage of these profound changes within digital society. We can use our knowledge of the history of colonialism and capitalism, and our awareness of the shape that data relations have already taken, to question their inevitability, to challenge their necessity and to imagine the possibility of still connecting with each other on other terms than these."

Nick Couldry

"The first question we must ask, therefore, is not how do we build different infrastructures for the economy for social connection. The first question we should ask is, is this the future for digital society that we had imagined, that we actually want. If not, then we must start to imagine a different future, and this is not easy."

Nick Couldry

The high-profile lecture series Making Sense of the Digital Society seeks to develop a European perspective on the processes of transformation that our societies are currently undergoing. This talk by Nick Couldry and all other lectures are available online. In addition, listen to Thomas Christian Bächle's interview with Nick Couldry at the Exploring Digital Spheres podcast.

www.hiig.de/digitalsociety

www.hiig.de/podcast

COMMENT

Fostering the European voice

Wolfgang Schulz, director at Alexander von Humboldt Institute for Internet and Society, focuses on the value of international collaborations and the potential of a European research perspective.

In recent years, the world has changed: principles of scientific work that were previously taken for granted have become political. This is particularly evident in international cooperation, since there are now governments in many countries representing populist, if not openly anti-rationalist, positions. For our colleagues in these countries, this creates a potential conflict. It goes without saying that research does not aim to simplify, but makes diversity and differences visible. Scientists are interested in ensuring that decisions are based on a knowledge of problems and possible solutions. And the community of researchers is genuinely global and not as nationalistic as many political movements.

It is against this backdrop that cooperation is taking place in the Global Network of Internet and Society Research Centers (NoC). It remains an academic collaboration, but it wants to be visible so that people can learn from the solutions it develops in other parts of the world and jointly develop the foundations for rational decisions. At a time when our colleagues are being subject to travel restrictions or even harassed, solidarity among researchers is called for.

But cooperation is not only about effects in the *real world*. It is also about leaving traditional paths and developing new perspectives within the scientific community. A look abroad often helps. In the area of *internet and society*, research has been strongly influenced by approaches developed in the USA. These have contributed enormously to the development of the field, but our impression was and is that the European voice can still enrich international research by drawing on social theories developed here and on specifically European cultural backgrounds.

The foundation of the European Hub in the NoC had this very goal, and the remark of an American colleague on the occasion of the first annual conference of the Hub – "I have to tell my colleagues at home what is going on in Europe" – confirmed for me that it was worth it. Over the next few years, we want to further increase the visibility of research achievements in Europe. ◆


IRELAND
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GERMANY
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CZECH REPUBLIC
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PORTUGAL
GREECE
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Mediterranean Sea
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2

"Internet governance [...] needs to be anchored in multidisciplinary forms of inquiry and action."

INTERNET POLICY POLITICS
INTERVIEW WITH MARIANNE FRANKLIN

Marianne Franklin is Professor of Global Media & Politics and convenor of the MA in Global Media and Transnational Communications at Goldsmiths, University of London. Frédéric Dubois, managing editor of the journal Internet Policy Review (IPR), interviewed her in advance of the five-year anniversary celebration of the journal.

Frédéric Dubois: Marianne, you have been following the work of Internet Policy Review since the very beginning. Back in 2012, internet governance was a key notion. Does internet governance still mean anything today?

Marianne Franklin: The short answer is yes, more than ever.

The longer one is; depends what we mean by this term. Over the last decade, at least, the issues that fall under the rubric internet governance have multiplied with all kinds of analytical and practical implications – legal, technical, ethical, sociocultural, economic and political. The internet's design as a "network of [computer] networks" has also become increasingly complex technologically, which implies that the complexity of the legal, sociocultural, economic and political dimensions of internet design, access, use and content management need to be embraced rather than explained away. Internet governance used to be a descriptor, stemming from a stricter, engineering understanding of technical standards and network architectures that appear far removed from "normative" issues such as rights, freedom, democracy and the like. In 2018, maintaining that this sort of narrow technocentric definition is the only one possible would be avoiding the many issues we all face – as users, designers, policy-makers, academics or activists for whom the internet is both an object and a means to achieve certain goals.

This is not to deny or belittle the role that technical experts have played in shaping the way that the internet works. But as technologies are never neutral nor immutable, the need to address the sociocultural and political implications of transformative

technologies such as the internet, given how many people take being online for granted, is even more pressing today. In the last few years, the stakes have also been raised geopolitically and within national polities. This means that technical experts, scholars, political representatives and activists need to both sharpen their focus whilst bearing in mind the broader context of any emerging design, terms of access and use, and how content – databases – are being managed, and for whom. These are exciting and challenging times in that regard because finding a focus and keeping focused whilst not being blind to the rest is not an easy task. But as demanding as this may be, it needs to be a core premise for the theory and research, public policy advocacy and activism that are currently addressing the spectrum of internet governance topics, for established and emerging scholars, and for journals that focus on the internet like Internet Policy Review.

Your specialty in internet governance is human rights. What are we looking at exactly?

Simply put, human rights with regards to internet communications and architecture are more than social and economic rights. They are more than the narrowly defined set of rights stemming from the US civil liberties and the American constitution (which enshrine free speech, for instance). I think we need to be more, not less ambitious in this regard and consider the ways in which internet design and terms of access and use implicate international human rights law and norms as a whole, not only those that have been currently cherry-picked, so to speak. In addition, human rights law and norms, as western liberal institutions, are not beyond criticism either. I do not see human rights as religious tenets, for they are also products of human history, quite recent history as it happens. Nonetheless, the term encompasses three, if not four "generations" of rights anchored in the UN system, which span from the Universal Declaration of Human Rights that was proclaimed in 1948 and those treaties and covenants that are derived directly from the UDHR such as the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic, Social and Cultural Rights (ICESCR) or the European Convention on Humans Right (ECHR) to those on the rights of women, of indigenous peoples, persons with disabilities and those of children.

In Western countries and Europe in particular, we've been dealing with the right to privacy online, particularly since the Snowden revelations in 2013 and subsequent events. This discussion is far from over, as jurisprudence has only really started to emerge in recent years. But privacy is but one right among many others and, moreover, it is one of the more controversial ones from a sociocultural perspective. Whilst privacy, along with freedom of expression and freedom of the press are well-developed areas for debate and action, they are the tip of the human rights-internet iceberg, a beginning not an end to the matter. Take, for example, the work being done on raising awareness of the gendered dimensions of even these fundamental rights and freedoms and their impact on internet policy-making, how these overlap advocacy platforms that address the way in which women's rights online (in terms of access, and freedom of association and of information) are yet to be fully realised in many parts of the world. Existing and emerging rights (some argue that internet access should be a new right) are already being reshaped in the face of how emerging technologies (the internet of things, artificial intelligence etc.), internet-dependent government services and commercial mobile phone apps are changing the way in which people interact with the world around them. Looking ahead, moreover, to think about the connections between human rights and the internet across the spectrum and how much work there is still to do, we need to consider the role that education can play. By this I mean critical thinking, daring to ask questions and query the norm, not learning by rote.

Education, as a dialogue, in this regard is crucial, because online and offline, internet-based practices and infrastructures based on data-tracking (namely surveillance), not privacy or other rights and freedoms, have become normalised across Europe and around the world. The extrajudicial programmes of mass online surveillance about which Snowden called the world to attention have now become enshrined in law, from the UK to Germany, the Netherlands, France and in the Global South as well. I'm deeply concerned about the continued assumption that accessing and using internet media and communications services have to be based on large-scale forms of data-retention, and the automated 24/7 tracking of our digital imaginations, and footprints, by both state agencies and companies (from tech giants to start-ups). These practices are political and commercial decisions, not a technical imperative. In

Germany, France, the UK, we may now have privacy acts of some sort or another, but all these regulations can be mitigated, if not circumvented by intelligence services, and law enforcement agencies. Just because something is technically possible even commercially attractive, that does not necessarily mean that it is either justifiable or desirable.

It is only along with, and through education (e.g. through teaching people how to use crypto-tools, or getting them to question their habits) that we can combat this incipient passivity towards this emergence of surveillance as the norm rather than an exception.

What role can researchers play in addressing the challenges in internet governance?

I would like to see internet policy and governance research open up to other disciplinary approaches, e.g. digital cultures, feminist studies, philosophy, anthropology (being online is, after all, a cultural practice). Many scholars – of digital cultures, for instance – would not consider their work as internet governance, strictly speaking. Yet these research agendas and theoretical approaches, along with those from philosophers and historians of technology, were looking at human-machine interactions long before internet governance became a recognisable, arguably trendy domain. Besides, to speak of "governance" often elides questions about the exercising of deep power – I have written quite extensively on the need to more thoroughly theorise rather than describe how power is exercised and pushed back against through digital, networked domains. We need to be aware of fetishising the technical in this domain; the web continues to be a space in which enormous amounts of content – meaning-makings – circulate, including relationships, art and culture such as music, communities in which ideas and identities are forged. For these reasons, internet governance as a scholarly but also policy-making rubric needs to be anchored in multidisciplinary forms of inquiry and action. It is too important to be left to the experts, or become parked in one corner of academe, in other words.

So I guess my answer to your question is: let's not get entangled in a standoff between disciplines or one between academic cultures (e.g. Anglo-American and European traditions as, ipso facto, superior to those from other, non-Western traditions). Whilst it is too important to leave it up to experts – technical or legal – this does not mean we should ignore such experts; quite the contrary. If the internet, broadly defined, is a technology of interconnections, then so too should the way we study, write and mobilise around internet governance be interconnected, cross-disciplinary. As these very terms of reference are transforming in the wake of R&D, and now policy agendas are looking to promote artificial intelligence, biotechnologies, nano-technologies and design innovations such as blockchain technologies, we may also be well along the way in a shift in the very experience of what it means to function as community, act and feel as a human being at the online-offline nexus. In that regard, philosophers, including feminist scholars, have been considering these intimacies between humans and machines for some time, and not always in simplistic, pessimistic terms. Which leaves me with one thought: is there the possibility that some consideration might be needed to whether there should be a right not to have to go online? ◆

This interview was first published on 26 September 2018 on IPR, a peer-reviewed online journal on internet regulation in Europe. The Scopus-listed journal celebrated its fifth year of existence in 2018 with a keynote by Marianne Franklin, followed by a lively discussion.

www.policyreview.info

Gerard Meijer

Nick Fowler

THE FUTURE OF OPEN ACCESS IN GERMANY
INTERVIEW WITH GERARD MEIJER AND NICK FOWLER

A nationwide consortium of scientific institutions, known as DEAL, aims to encourage academic publishers to adopt new licensing agreements for the open access publication of scholarly content. Traditionally, each institution had to buy individual subscriptions to specific journals. According to the proposed "Publish and Read" model, they would instead pay an annual lump sum to publishers on a national scale to cover article processing charges (APCs) for all papers written by German scholars. This model would also make all publications offered by this publisher available to scholars associated with a DEAL institution. In July 2018 the negotiations with Elsevier – the biggest academic publisher – were suspended.

Nataliia Sokolovska, editor of the blog journal Elephant in the Lab, talked in August 2018 to high ranking representatives on both sides of these negotiations: Nick Fowler, chief academic officer and managing director research networks at Elsevier and Gerard Meijer, director and scientific member at the Fritz Haber Institute of the Max Planck Society.

Nataliia Sokolovska: Why did the DEAL negotiations fail?

Gerard Meijer: We agreed on the general numbers, like how many articles are actually published per year in Germany, but we did not agree upon the price it would cost to get all these articles published and which would enable users to read all the other content that is accessible through subscription fees. We also managed to agree on the cost for open access publication, but we did not manage to agree on a total package.

Nick Fowler: Yes, that is true. We agreed on the number of articles published by Elsevier by the corresponding German author, which is 16,500 articles. In our opinion, 2,000 euros as an article publishing charge is a good number to use on average in

this context; and therefore we agreed that the annual cost of gold open access would be around 16,500 multiplied by 2000, which equals 33 million euros. Currently, more institutions in Germany want to be able to read the full content of Elsevier from around the world and that would amount to 33 million euros in addition to what was previously being paid to read via subscriptions.

What would the perfect outcome be for both sides?

Meijer: A compromise, of course. We have the feeling that Elsevier didn't go far enough, and this is why we did not reach an agreement. We should also agree on the timescale within which our agreement should be implemented. We want the switch to open access to happen faster, and really lower the cost from about 50 million euros [the overall fees paid by German institutions] to 33 million euros.

Fowler: We absolutely want to help Germany to achieve its open access ambitions. We're on one side concerning this. However, there are several challenges: for instance, the fact that a large portion of the world's articles are published under the subscription model. Then the question arises: how do you provide access to publications, while the rest of the world is not following Germany's example? The outcome requires a compromise that we would love to achieve sooner, not later. We both want to reach a deal and are ready to make a number of concessions.

Is there a need for a market for scholarly publications? And what role does the researcher play in it?

Meijer: The researcher is the person who supplies the product to the market, does the quality control and then buys it back. That is what the situation is like right now. In the end, we all have to realise that a publication is an essential part of a research project and the publisher or a publishing agency is needed to cooperate in that part of the work – to get it published and to disseminate it around the world. And publishers will also retain this role in the future. That is why we need each other; this is why we have worked so hard to reach an agreement even if the standpoints are a bit apart.

Fowler: In our case, we won't have a future if we don't stay relevant to the researchers or if we are perceived as operating unfairly. In this market, we are a service provider, we offer something that is valued by the community; if we are not able to do so anymore, we would cease to exist. So, it's absolutely our duty to remain in line with the needs of the research community. There are multiple stakeholders in the community – governments, fundraisers, university leaders, librarians, researchers, publishers. There is a request to enable open access and we recognise that and we try to come to an agreement in a way that can still work for the long term.

`Does it have to be a commercial market?`

Meijer: It certainly doesn't have to be in the commercial sphere, but in the end, universities and research institutions are interested in receiving this service of coordinating the publication process and ensuring its quality. Of course, universities could organise, for example, their conferences themselves, but there are organisations to do this for them because they are specialised in this and do it better. It's the same in publishing: there are publishers who specialise in the publishing business and do it better, more efficiently. It's their job and so you should respect the specific expertise that different parties bring in. In that sense I think it is very good to have a market, to have a commercial partner that takes these tasks upon themselves, and, of course, it is perfectly fine for them to make an adequate profit.

Fowler: I agree, in theory, you don't need the services that are provided by the publishing sector to be provided commercially. Historically, universities used to do things themselves, but then they started outsourcing to publishers. The point is that universities want to do research and they want to minimise the amount of administration that they have to do. We find that the services should be done at a certain scale and it's easier to attract companies to do them: they tend to be more efficient. If you didn't have commercial suppliers, you'd be trying to do these things yourself in the academic sector, and this would cause tension within academic institutions. They'd be reinventing the wheel a lot of times, for example, the software, secure its interoperability etc.

Can online platforms and digital tools provide an alternative to the existing business models?

Meijer: We do look at alternatives and support various open access initiatives. It's true, researchers secure quality control by themselves, but somebody still needs to organise this whole process. So despite novel tools, publishers play a very important role. They are the ones who appoint the editorial board, who find the right people, who find the advisory board, who make sure that they get the articles and that once they are published they are disseminated and distributed. That is the role they play. The important point is, though, that the profit they make is currently not in line with the value that they add to the whole process. These functions could be done in another way, but you should also not try to do everything yourself.

Fowler: You're right, actually every single function for the researchers can be provided without publishers. You can write an article, you can register it, post it online, keep it on your hard drive, or you can post it in a preprint server. What the publishers do is provide the seal of approval and this is why article submissions have tended to grow by 10 per cent a year. So, although we get 1.5 million article submissions every year, what we actually publish is just 400,000, which is about 30 per cent. That is a growth of 4 per cent per annum, and the submissions are coming to us because of the seal of approval that comes from being published in a journal that is well-known in the community and in the world. Our articles are worth reading because they are associated with high quality control. It's also a great deal of administration if we are speaking of 1.5 million publications, every one of which represents somebody's big idea. You cannot afford to lose any single submission. So we do it at scale in a way that is trusted by the community in terms of the output and we need to ensure that we do it at a price that is perceived as good value.

What should the next steps of the DEAL negotiations be?

Meijer: Our positions are very clear from both sides. We want all articles that were written by German authors to be open access. And we don't want the individual authors to pay for that, but for it to be paid in one sum. We also want to have access to the rest of the content that is being published. The discussion on the price and timescale remains. It's difficult to make a compromise and meet in the middle. We are ready to restart the negotiations. It will be interesting to see who takes the first step and what will happen then. Nothing is planned right now. One should also take into account that the last round happened just before the summer vacations.

Fowler: We won't get anywhere while we are not talking. So, I'm really pleased to have this discussion. You are absolutely right; we understand each other and where our argumentation is coming from. I agree that the way forward is to focus discussions on the components of price, timeframe and flexibility. There is no discussion schedule at the moment and nothing planned in terms of the timeframe for the next rounds of discussions. Although, there should be! ◆

Elephant in the Lab is an online blog journal that addresses problems in science.

www.elephantinthelab.org

COMMENT

The supposed gap between academia and society

Jeanette Hofmann, director at Alexander von Humboldt Institute for Internet and Society, addresses the impact of technological development for civil society and the common ways this topic is discussed.

The issue of successful exchange between academia and civil society suggests that there is a gap between the two that needs to be overcome in some form before meaningful exchange can take place. In my experience, this gap either doesn't exist or is different in nature than this question seems to assume. In other words, I'm neither translating nor explaining my research findings. If I'm honest, I'm arguing my point of view when interacting with civil society rather than sharing some form of exclusive let alone superior knowledge. Also, there are important things I have in common with civil society, among them the subject matters or the issues of concern that catch our attention. The differences lie in the perspectives and resources, and at times also the objectives we bring to bear on a given issue area.

To offer an example of what I mean: in the last couple of years, I've become very interested in the relationship between digitalisation and democracy. There's nothing particularly academic about this interest; in fact, civil society might have paid more attention to this "problematique" in recent times than theorists of democracy have. When I give talks about democracy in the digital age, one of my chief intentions is to question the common ways of problematising this relationship. For instance, the public debate on digitalisation tends to ascribe a lot of power to new technologies

and, simultaneously, portray society as a rather passive recipient of it. Arguing against this view, I might emphasise the technology's relative indeterminacy and openness, its contested character and thus the neglected extent to which societies are continuously shaping the course of digitalisation. The internet looks like a self-evident infrastructure nowadays, yet it is anything but that. It could have evolved differently, and its future will also take the form of a path full of forks. Open questions include what values and norms, routines, interests but also what actors will drive this development and how these choices will affect our capacity for and conditions of democratic self-determination.

One of the motives driving my exchange with civil society is to challenge the presuppositions or worldviews that we are taking for granted and that therefore restrict our capacity for democratic self-determination. We first need to acknowledge the variety of paths a technological development can take before we can consider ways of collectively and deliberately shaping it. What is specifically academic about this contribution? Perhaps two things: the endless curiosity in the variety of ways of understanding public matters of concern, just for the sake of it, and the various resources I can rely on to question our worldviews. ◆

SALLY WYATT

Addiction: An apt metaphor for the (over)use of digital technology?

—

Not so long ago, policy makers wanted people to go online to take advantage of the many possibilities offered by the internet. But now we are being warned about the dangers of always being online for our physical and emotionoal well-being.

"Imagine you are an iPhone, recharging." Somewhat to my surprise, this instruction was given by my yoga teacher as we started *savasana*, also known as corpse pose or final relaxation, that fine moment at the end of a yoga class when you lie on your back to let your body and mind come to terms with the more active practice that has gone before. Of course, technologies have given rise to all sorts of metaphors and images for people to describe their physical and mental states: we talk about running out of steam, going off the rails, recharging your batteries, biological clocks, the body as a well-oiled machine, being tuned in or out, switched on or off. These may vary between languages, but certainly all European languages have remnants of metaphorical expressions drawn from the moment when technologies that are now old were new. Clocks, steam engines, railways and electricity have all left their traces. What I found particularly surprising as I lay on my yoga mat, imagining myself to be an iPhone, is that the enormous growth of yoga and mindfulness in recent years can in part be attributed to the parallel growth in the use of digital technologies and social media at work and for everyday communication. Yoga is seen by many, at least by many yoga teachers, as part of the solution to both the loss of mindfulness that comes with being always on, always available to colleagues, friends and family, and the back problems that often accompany spending long periods of time hunched over a screen. Yoga classes are one of the last places where it is not acceptable to have your smartphone on or even within arm's reach.

PARADOXES

There are some paradoxes here. First, even though I do not bring my smartphone to yoga class, I can only access the booking system via my phone or computer. The second obvious one is that at the moment when muscular tension is being released, and mind and body are supposed to relax, I am imagining myself to be a highly complex technical object, namely an iPhone, coupled to an even more complex system in order to recharge. The third paradox is seeing more technology as the solution to spending too much time with technology. The large technology companies are attempting to capitalise on concerns about how much time is spent on the devices and services they have already sold to people by selling them more applications (apps) to monitor, control and block their access to those very devices and services. As a business model it is completely brilliant, and it exploits another very powerful metaphor that has been around since

the late 1990s, after the rise of the commercial internet and the first dotcom boom, namely of users and addiction.

DIGITAL DIVIDES: FROM ACCESS TO ADDICTION

In the late 1990s, many policy makers were concerned about digital divides, between countries, between young and old, men and women, rich and poor, indigenous and migrant populations. At the time, the main policy concern was physical and financial access to the internet and the associated costs of acquiring a computer and paying for broadband or some other kind of network service. Policy measures were introduced to increase the number of users, underpinned by the belief that once people had access to the internet, its value would be self-evident and they would embrace it enthusiastically. In other words, policy makers saw access as a kind of gateway drug: once hooked, people would never look back, "once a user, always a user".

Having contributed to the promotion of what can be called the *addiction model* of internet access, policymakers are now shifting their attention to the problems of internet addiction. Children are seen as especially vulnerable, with concerns regularly being expressed about children spending too much time in front of screens and not enough time outside and/or playing other sorts of games. Adults of every age are also regarded as being at risk, with their constant checking of emails and social media so that they can receive messages of varying degrees of urgency from employers or experience the momentary thrill of being liked. Among psychiatrists, there is much debate about the similarities and differences between substance and behavioural addictions. Even though compulsive gambling was recognised as a behavioural addiction by the influential *Diagnostic and Statistical Manual of Mental Disorders* in its latest revision (American Psychiatric Association, 2013), (over)use of the internet was not.

Deploying the metaphors and language of use and addiction to describe how people engage with digital technologies brings a more serious problem to the fore. In the 19th century, and often still today, substance addiction was seen as an individual moral failing, especially among the poor. Greater recognition of addiction as an illness can reduce stigma and make it easier for people to seek help; nonetheless addiction is still often seen as an individual problem, requiring

continue reading on page 128 ▸▸

THIS IS AN ARTICLE BY **SALLY WYATT**

This article was first published on 18 October 2018 within the dossier on *How metaphors shape the digital society* on the Digital Society Blog of Alexander von Humboldt Institute for Internet and Society (HIIG).

Sally Wyatt is professor of digital cultures in the Faculty of Arts and Social Sciences, Maastricht University, the Netherlands. She is one of the coordinators of the Digital Society Initiative, that was founded by the Association of Universities in the Netherlands. Between 2006 – 17, Sally Wyatt worked for the Royal Netherlands Academy of Arts and Sciences, and was Programme Leader of its e-Humanities Group.

How metaphors shape the digital society. The current rapid social and technological change is giving rise to enormous uncertainties – and a great need for explanation and sense-making. How do we understand the digital society? How does vocabulary shape the emerging digital society? In the series of articles on the politics of metaphors different authors analyse the assumptions and meanings of metaphors in the digital era, published on HIIG's Digital Society Blog.

individual discipline and responsibility to overcome. This individualisation neglects the economic and political structures that may contribute to people struggling to cope, and turning to alcohol or gaming for a reprieve. Similarly, describing spending too much time online in whatever form as an addiction ignores the ways in which the providers of the hardware, services and apps, as well as other businesses, employers and governments all expect and encourage us to be always online, whether that is to pay our taxes, respond to questions from our bosses or even to book a yoga class. It is not addiction, but socially produced pathology.

BEYOND USE AND ADDICTION

We should always be careful in our choice of metaphors, not to the point of insisting on very literal language use, but certainly to the question of what metaphors are doing to how we understand ourselves, our political and material environments, and the responsibilities we have to each other and to machines. The language of use and users puts us in a subordinate position to the technology, and addiction may deny us agency. Talking about addiction certainly closes down more structural explanations of the multiple relations people have with technologies and the entanglements between online and offline lived experiences. Are we using social media as citizens, workers, friends or lovers? Making this clear can help us to consider what might constitute healthy use and healthy responses. Yoga can be very beneficial to people suffering back pain or just attempting to maintain a bit of flexibility in their ageing bodies. But if you are always online because you fear losing your income by not being available, then the problem is neither addiction nor your lack of self-discipline, and the solution is not mindfulness. Collective action via a union might be a more successful strategy to combat digitally mediated exploitation. ◆

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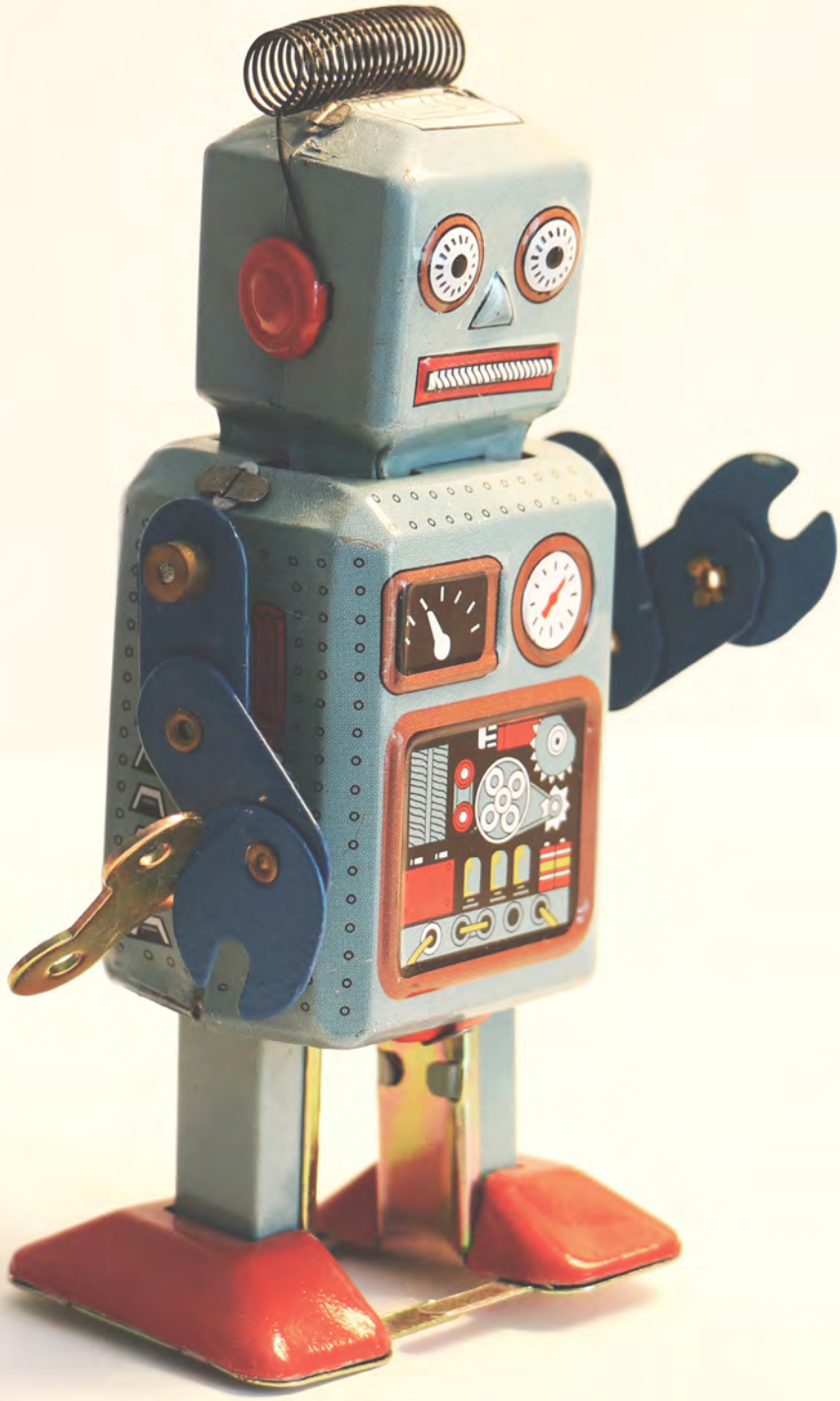


COMMENT

Times are changing – and time is, too

Christian Uhle is a Berlin-based philosopher whose work focusses on digital society, the future of mobility and the meaning of life. As a guest at the Digitaler Salon at the Humboldt Institute for Internet and Society he discussed how the concept of time changes when everyone is constantly available.

The concept of time can be puzzling. We are taught that time itself does not exist but is a dimension of the existent. Yet we can measure time, organise, commodify and trade it. By making time such an object, we become its servant. From the moment our alarm rings in the morning, we find ourselves in an almost contradictory position, being chased by time, while filling, shaping and optimising it.

Our conception of time, our relationship to it, how we cope with time and how this affects us – all of this is influenced by societal structures and conversely shapes these structures. The term ***time regimes*** attempts to encompass all these complex interdependencies. Changes in time regimes often go hand in hand with deep transitions in socio-economic and socio-technical systems.

Such transitions are taking place today. In the digital age, time regimes, especially space-time structures of information, have changed dramatically. News, gossip, purchase orders, calls for political activism – the global distribution of information has accelerated to the point of simultaneity. Pictures of food are commented on by friends around the globe before the meal is even finished. In this process, the role of photography is changing. It is starting to function less as a way of remembering previous events but rather as a medium to transcend space and constitute simultaneity. In addition to these phenomena of simultaneity, the internet also serves as a giant and often merciless archive of our personal lives. The demand for a right to be forgotten is one of its symptoms and an attempt to find solutions to the challenges it gives rise to.

One of the core promises of many digital services is to save time. With apps, we can navigate through cities quicker, make appointments faster, buy shoes with one click. Such promises of convenience and time efficiency were connected to technology before digitalisation, but they are now gaining new momentum as the role of technology in our lives – the number of devices and services, the intensity of usage – is becoming ever more dominant. One danger of such acceleration is that it may lead to a loss of meaningful relationships to the world around us, as sociologist Hartmut Rosa famously pointed out. Doing and experiencing more does not necessarily make our lives better; it can even foster alienation. Our lives pass us by at high speed, too fast to touch us, too fast for us to process.

Our relationship with time is shaping the development and usage of digital technologies, and vice versa. It is crucial to research these links, as transitions in time regimes affect our public and private spheres, our economies and identities as well as how we engage with time in our own lives. This prompts fundamental questions about society, happiness, meaning and personhood. We must address such questions in order to make sense of digital transformation. Only if we understand its deeper structure will we be able to profoundly discuss and assess possible futures and shape the transition in a desirable way. To succeed, we have to bring together different perspectives and academic disciplines, one of which is philosophy. Clarifying and discussing fundamental questions about humans and the world around us – that is philosophy's home terrain. ◆

The talk about time and digitalisation as well as all other discussions of Digitaler Salon are available in German online:

www.hiig.de/digitaler-salon


#DIGSA

THE TRAVELLING RESEARCHER

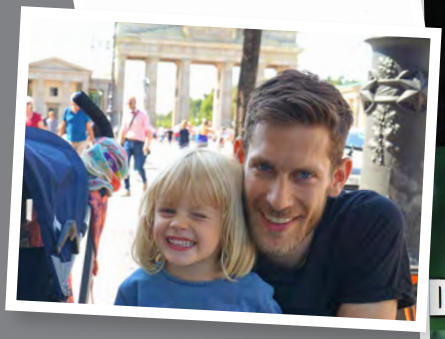
Five internet scientists captured their research stay in Berlin with pictures

As a child, I dreamt of becoming a ...

Swiss Army knife of an internet researcher.

Thanks to HIIG ...

Internet research is ...



Favourite selfie from my stay in Berlin.

Best meme of all times.

ALFRED FRÜH

University of Zurich

Swiss Army knife of an internet researcher.

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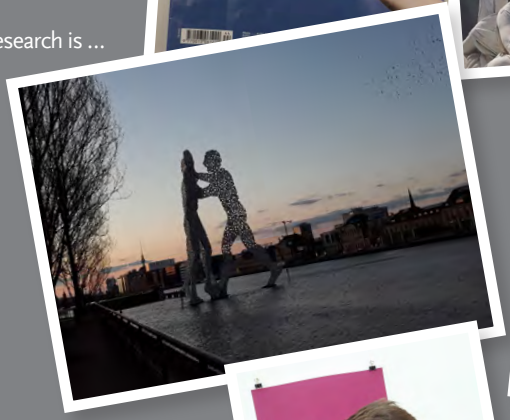

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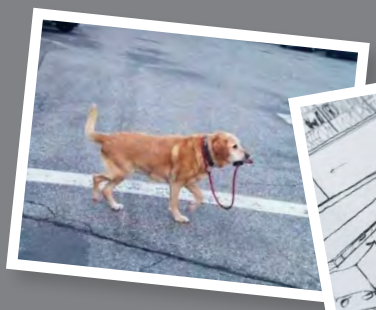
EDOARDO CELESTE

UCD Sutherland School of Law, University College Dublin

Swiss Army knife of an internet researcher.



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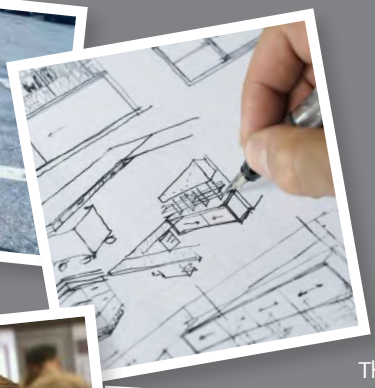

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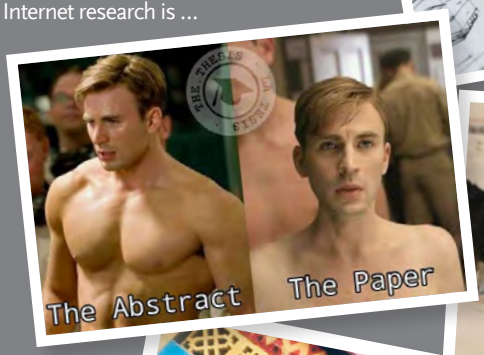

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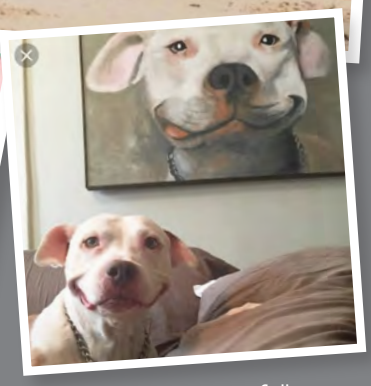
Favourite selfie from my stay in Berlin.

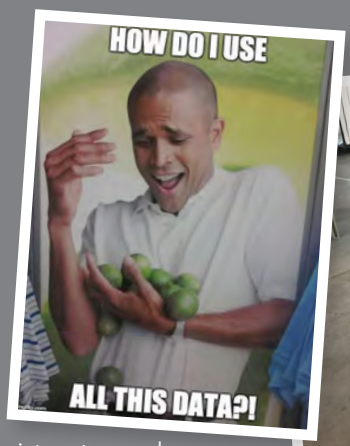


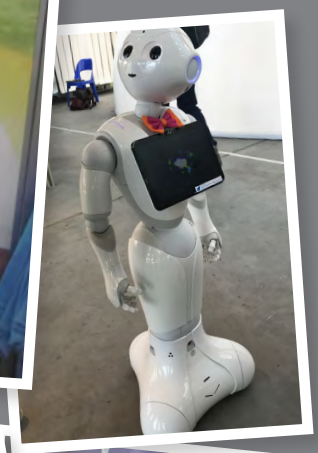
Best meme of all times.

NATALIE POMPE

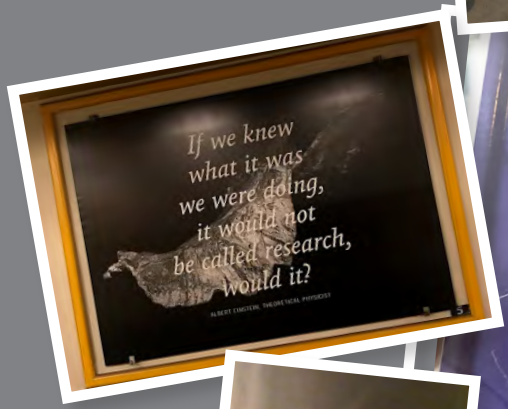
University of Zurich

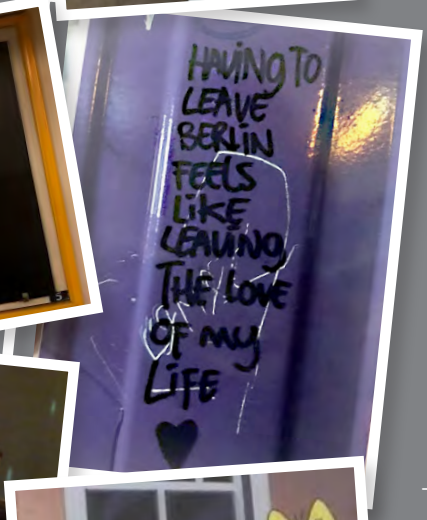
As a child, I dreamt of becoming a ...



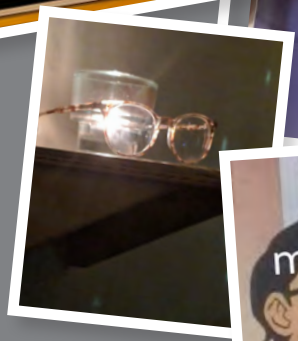


Swiss Army knife of an internet researcher.





Internet research is ...



Thanks to HIIG ...

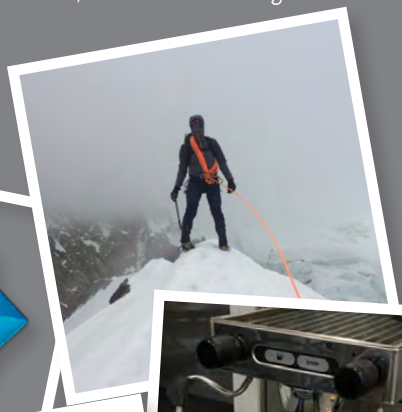
Favourite selfie from my stay in Berlin.

Best meme of all times.

ALEXANDRA GIANNOPOULOU

Institute for Information Law, University of Amsterdam

As a child, I dreamt of becoming a ...



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Internet research is ...

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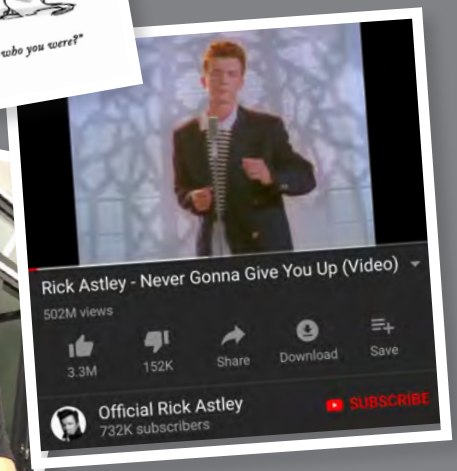


Best meme of all times.

TUUKKA LEHTINIEMI

Aalto University and University of Turku

INTERNET AND SOCIETY RESEARCH IN NUMBERS

Number of people who use the internet in Germany daily in 2018 . . . . . 54 Mio
Number of people who do not use the internet at all in Germany. . . . . 6.8 Mio

Avg. minutes per day people spent online in Germany in 2018 196
Avg. minutes per day people in the age of 14 to 29 spent online 353
Average minutes per day people from the age 70 spent online 37

Expected number of inquiries to HIIG concerning GDPR 10,000
Actual number of inquires to HIIG concerning GDPR 1
Avg. emails sent on updated terms due to GDPR. 2,000,000,000,000

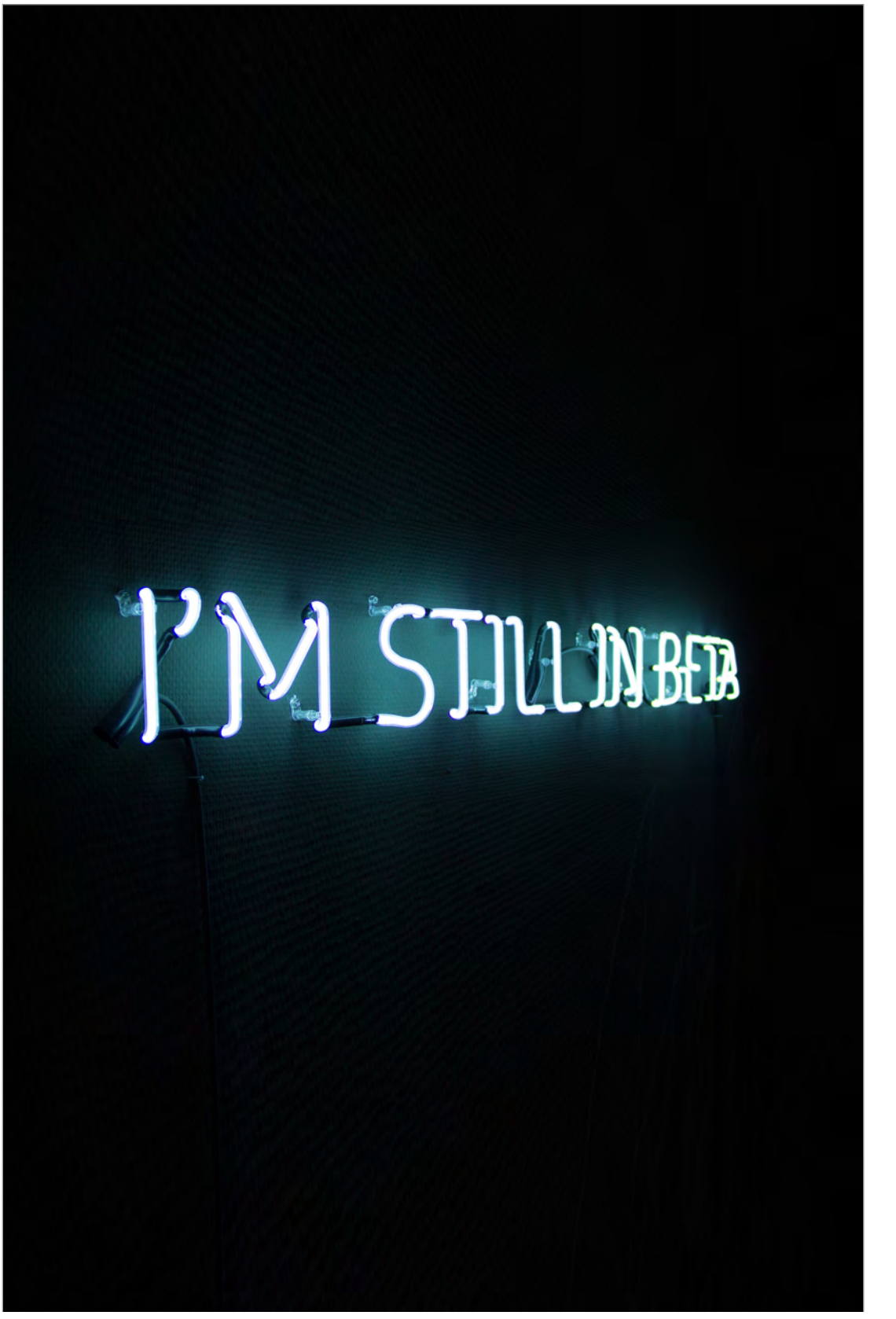
In 2018, avg. mobile Internet speed in Iceland . . . . . 72.54 Mbps
In 2018, avg. mobile Internet speed in Germany . . . . . 31.05 Mbps
In 2018, avg. mobile Internet speed in Tajikistan . . . . . 4.80 Mbps

In 2018, avg. broadband internet speed in Singapore. . . . . 185.25 Mbps
In 2018, avg. broadband internet speed in Germany . . . . . 65.19 Mbps
In 2018, avg. broadband internet speed in Algeria . . . . . 3.52 Mbps

Est. number of individuals affected by Marriott hotel group hack . . . . 500 Mio
Est. number of individuals affected by Facebook accounts hack . . . . . 50 Mio
Most popular password in Germany in 2018 123456

Tweets about the royal wedding of Prince William and
Catherine Middleton in 2011 1,821,669
Tweets about the royal wedding of Prince Harry and
Meghan Markle in 2018 6,604,498
Number of retweets of one of the most popular tweets
about the wedding in 2018 105,000

Years of existence of the journal Internet Policy Review (IPR) 5
Number of authors that published in IPR 194
Most downloads for an IPR published paper 2,102
Avg. reads per month of IPR 5,075
Avg. review time in months 3
Article processing charges 0


I'M STILL IN BED

encore

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