encore

THE ANNUAL RESEARCH MAGAZINE OF THE
ALEXANDER VON HUMBOLDT INSTITUTE FOR INTERNET AND SOCIETY

VOLUME 2013

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If there were any remaining doubts about choosing the field of Internet and society as the focus for our institute, the events of the year 2013 have well and truly put them to rest. By now, we are familiar with almost daily headlines relating to the Internet. The stories behind many of these headlines reveal new insights into the evolving relationship between digital technologies and contemporary society. Some of them are outright scary and shocking; such as the revelations about the sophisticated surveillance techniques used by secret services, while others are quite encouraging, such as the trends towards Open Data, Open Science and Open Government.

Whether we like it or not, life without the Internet has become inconceivable for modern societies. Hence, the actual questions are no longer about how often or how long we are online but rather concern rules, norms and principles that shape our digital life, what we expect from digital technologies, which meanings we ascribe to them and, not least, how we can govern the growing permeation of our society by the Internet.

encore, our new magazine, wishes to convey an impression of the research questions addressed throughout 2013 at the Alexander von Humboldt Institute for Internet and Society (HIIG). Even if we cannot cover all the issues currently being discussed, this first edition of encore exemplifies the breadth of our research programme and the considerable range of approaches undertaken by our research team. HIIG's research team encompasses a broad variety of disciplines and research methods but also enough academic curiosity to steal a glance across traditional boundaries.

Interdisciplinary research is one of the institute's hallmarks. Admittedly, it is quite a challenge to devise joint research projects and organise truly interdisciplinary collaboration without compromising academic excellence. We pursue this task by means of cross-cutting themes and through various meeting formats that intend to cultivate exchange between our four research areas.

encore's intention is to make public what we do and how we address the manifold links between Internet and society. Why did we choose this approach? Because the format of a magazine is readily accessible and thus enhances transparency. Enjoy encore!

Jeanette Hofmann, Director of the Humboldt Institute for Internet and Society

DISCUSSIONS

AND

LET'S VENTURE A GLIMPSE INTO THE FUTURE.

IF TIME AND MONEY DIDN'T MATTER, WHICH RESEARCH PROJECTS WOULD YOU LIKE TO CARRY OUT AT THE HUMBOLDT INSTITUTE FOR INTERNET AND SOCIETY?

The Internet is about to make the world of sovereign states an episode of history. Based on the preliminary findings in the field of Internet governance, future research on Global Privacy Governance should be entrusted with developing an approach for compulsory rule-making efforts on a global level that are able to meet the requirements of an interconnected world society and allow the emergence of a global constitution.

__ INGOLF PERNICE

Modern societies delegate an increasing number of tasks to algorithms. Algorithms rank search results, navigate travel routes and they are the brain behind high frequency trading. My current pet project would drill into the lists of well-defined instructions, which form the building blocks of algorithms. The research would aim to disclose the often tacit assumptions underlying these instructions. Translated into human language we all understand, the project would enable us to critically assess the engineers' world views and values that subtly shape the ways algorithms work and thereby organise our life. Who knows, deciphering computer instructions may become an ordinary approach to analysing the social institutions that characterise the digital society.

__ JEANETTE HOFMANN

One of the major (research) questions concerning Internet use in the future will be about trust – especially concerning the dialogue between the citizens in their multiple roles as private individuals, workers, employees, self-employed persons or civil servants on one hand and the political, industrial, or governmental organisations on the other. On a global scale, there are currently several attempts to draw up Internet charters and declarations, to set binding norms as a basis of trust between citizens, businesses and governments. Our research project would aim to contribute to this international debate, focusing in particular on aspects of dialogue between citizens and organisations and especially on questions of exchange, for example concerning the implementation of ideas.

__ THOMAS SCHILDHAUER

When contemplating the future of Internet research at the HIIG a vision of developing new tools to answer old questions comes to my mind: conducting research in an international network, reaching out to as many countries as possible with the HIIG acting as one central hub of ideas to help transform all information provided to us by the Internet into useful knowledge. Based on that knowledge, we will develop suitable regulatory means and frameworks to resolve the new social conflicts of the digital era concerning informational privacy, copyrights or access to infrastructures and information by establishing a well balanced global Internet governance, that respects basic individual and collective rights and fosters innovation at the same time.

__ WOLFGANG SCHULZ

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Internet-enabled Innovation

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Internet-enabled Innovation

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Björn Grzywacz
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Global Constitutionalism and the Internet

Urs Kind
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Global Constitutionalism and the Internet

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Global Constitutionalism and the Internet

Sebastian Leuschner
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Mayte Peters
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Global Constitutionalism and the Internet

Erik Zocher
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20 November 2013

**A1 Deutsche Zentralbibliothek
für Wirtschaftswissenschaften, Hamburg**

Vernetzung, Sichtbarkeit, Information?
Nutzungsmotive informeller digitaler
Kommunikationsgenres unter
Wissenschaftlern in Deutschland und
Großbritannien

Title length. . . . . 154 characters

Bee-line . . . . 255 km

Travel distance. . . . . 288 km

Temperature . . . . 5 °C

HIIG participants . . . . 🧍

4 April 2013

A2 Bilgi University, Istanbul

The Future of Data Protection: Great
Expectations

Title length. . . . . 49 characters

Bee-line . . . . 1 737 km

Travel distance. . . . . 2 196 km

Temperature . . . . 19 °C

HIIG participants . . . . 🧍

THE LONGEST BEE-LINE TRUMPS!

7 May 2013

A3 re:publica, Berlin

Let's Talk About Content! How the
infrastructure of the Internet changes

Title length. . . . . 72 characters

Bee-line . . . . 2.46 km

Travel distance. . . . . 3.4 km

Temperature . . . . 14 °C

HIIG participants . . . . 🧍

9 November 2013

**A4 Austrian Academy of
Sciences, Vienna**

"What are these researchers doing in my
Wikipedia?": Forschungsethische Axiome
und forschungspraktische Kompromisse
teilnehmenden Beobachtens in digital
vernetzten Umgebungen.

Title length. . . . . 174 characters

Bee-line . . . . 523 km

Travel distance. . . . . 679 km

Temperature . . . . 5 °C

HIIG participants . . . . 🧍

4 December 2013

B1 Anhalt University, Bernburg

Wissenschaft und Digitales: Forschung und Publikation im digitalen Zeitalter

Title length.	76 characters
Bee-line	139 km
Travel distance.	204 km
Temperature	2 °C
HIIG participants	👫

21 October 2013

B2 Global Internet Governance Academic Network, Bali

Infrastructure's Turn to Content

Title length.	32 characters
Bee-line	11 543 km
Travel distance.	15 277 km
Temperature	28 °C
HIIG participants	👤

Activities of HIIG members all around the world.

11 February 2013

B3 Oxford Internet Institute

A Tale of Two Platforms:
Emerging communicative patterns in two scientific blog networks

Title length.	88 characters
Bee-line	1 002 km
Travel distance.	1 204 km
Temperature	4 °C
HIIG participants	👤

10 November 2013

B4 Haifa Center for Law and Technology

Power over and through networks:
Structuring discourse

Title length.	54 characters
Bee-line	2 794 km
Travel distance.	6 379 km
Temperature	19 °C
HIIG participants	👤

4 November 2013

C1 University of Modena

Recontextualizing and reconceptualizing expert discourse: But what good are they for knowledge dissemination? A macroscopic perspective of digital genres.

Title length.............. 154 characters

Bee-line .... 894 km

Travel distance................1 107 km

Temperature .... 16 °C

HIIG participants .... 👤

12 – 13 September 2013

C2 Polish Academy of Sciences, Warsaw

Online Free Expression in the Corporate Realm: Corporations' Policies and Practices Shaping Private Speech on Communication Platforms

Title length.............. 133 characters

Bee-line .... 516 km

Travel distance................. 572 km

Temperature .... 15 °C

HIIG participants .... 👥

15 November 2013

C3 Medienanstalt Berlin-Brandenburg, Potsdam

Kommunikationsverfassung, Kommunikationsgrundrechte, Staatsfreiheit – Staatsfreiheit als Gestaltungsprinzip

Title length.............. 107 characters

Bee-line .... 27 km

Travel distance................. 36 km

Temperature .... 2 °C

HIIG participants .... 👤

3 October 2013

C4 National Law University Delhi

Constitutional Framework on Freedom of Expression in Europe

Title length............... 59 characters

Bee-line ....5 779 km

Travel distance.................7 169 km

Temperature .... 17 °C

HIIG participants .... 👤

17 May 2013

D1 **Instituto de Estudios Internacionales, Santiago de Chile**

Problemas Actuales en Ética Global

Title length . . . . 34 characters

Bee-line . . . . .12 517 km

Travel distance . . . . undefined

Temperature . . . . 13 °C

HIIG participants . . . . ♀♂

05 – 07 December 2013

D2 **Goethe-Universität Frankfurt am Main**

Von Shitstorms und Empörungswellen. Gründe und Abgründe der Internetkritik

Title length . . . . 75 characters

Bee-line . . . . 424 km

Travel distance . . . . 547 km

Temperature . . . . 2 °C

HIIG participants . . . . ♂

The do-it-yourself happy families set can be downloaded via hiig.de/happyfamilies.

21 October 2013

D3 **Bielefeld University**

Wandert die Produktion in das Wohnzimmer? 3D-Druck als "Dritte Industrielle Revolution"

Title length . . . . 88 characters

Bee-line . . . . 336 km

Travel distance . . . . 389 km

Temperature . . . . 10 °C

HIIG participants . . . . ♂

15 October 2013

D4 **European Commission, Brussels**

Digitalising the German parliament's petition system: Common (mis)perceptions and legal reality

Title length . . . . 95 characters

Bee-line . . . . 651 km

Travel distance . . . . 764 km

Temperature . . . . 11 °C

HIIG participants . . . . ♂♂

THE HUMBOLDT INSTITUTE FOR INTERNET AND SOCIETY IN NUMBERS

Number of men employed or associated at the Humboldt
Institute for Internet and Society throughout 2013 53
Number of women employed or associated at the Humboldt
Institute for Internet and Society throughout 2013 27
Number of desks at the institute 41

Coffee beans processed into beverages 565 760
Tea bags processed into beverages 1 443

Sheets of paper printed ever since the institute was founded 85 749
Average amount of papers printed by the researchers per quarter 16 526
Total number of stickers used to label HIIG's possessions 2 973

Number of potted plants raised by the HIIG's staff 32
Number of harvested fruits 1

WLAN routers bought in 2013 6
WLAN breakdowns at the HIIG in 2013 83
WLAN connections in event locations, that worked non-stop (estimated) 0.314

JULIAN AUSSERHOFER

Research Fellows 2013. Five prompts
casted into a travel report

Reiz|Wort|Ge|schich|te [ˈʀaɪ̯ts‿ˌvɔʁt ɡəˈʃɪçtə]

I DID NOT KNOW A RESEARCHER COULD PACK WORDS LIKE **SACHERTORTE**, **#AUFSCHREI**, **WANDERLUST** AND **PARADIGM SHIFT** INTO FIVE PARAGRAPHS. AND THEN I READ THIS TEXT.

If this publication were BuzzFeed, Upworthy or another one of the countless websites that seek our attention with touching stories and incredible videos, the headline above would fit just right. But this is not a new Reddit thread or the next collection of lifehacking tips. Instead, I will briefly recapitulate my last summer in Berlin as one of four visiting Research Fellows at the HIIG, where I stayed from July to September.

Some of my friends call me the 'the permanent tourist'. That is because I used to spend my spare weekends in Vienna like a visitor (although I have been living in that city for years). I read newspapers in cafés, I order Austria's most famous boiled beef, the Tafelspitz, and I go to the former Imperial Zoo as often as possible. And, above all, I love Sachertorte – probably the world's best cake.

My addiction to Sachertorte also found me a room in Berlin last summer. Getting suitable accommodation in Berlin can be difficult. I wanted to avoid nerve-racking interviews, complicated landlords and sharing an apartment only for monetary reasons. Therefore I set up a Tumblr blog[1], introducing myself and a competition: I would give away two original Sachertorten; one would be for my new interim flatmates, one for the broker who would find me the

apartment. The result was astonishing: Dozens of people shared my offer via mail, Twitter and Facebook. I received e-mails from people I had never met before. And few days later I had found a room and even a bike – right in the heart of Hipster-Kreuzkölln.

Although I had seen a lot of Berlin during my previous trips to the city, I remained a 'permanent tourist' during my three months as a fellow, strolling through the streets and backyards without aim, purely driven by wanderlust. My workplace at HIIG also contributed to that feeling: From where I sat, I could see the TV tower and the German flag on top of the Federal Foreign Office. Berlin visitor, could you ask for more?

Apart from the touristic aspects: What is it like to spend a summer at HIIG? We Research Fellows were welcomed with tremendous hospitality and were quickly integrated into the institute's teams and routines. When we were not busy working on our own research projects, we participated in the weekly Journal Club or took part at one of the many excursions that were organised for us. Not to forget: The many spontaneous meetings at lunch where we discussed data-driven paradigm shifts in the social sciences, calculated publics like #Aufschrei – and the best Currywurst in town. Summa summarum: An unforgettable summer. ◆

FOOTNOTES

1 http://julianinberlin.tumblr.com

THIS IS AN ARTICLE FROM **JULIAN AUSSERHOFER**

Julian Ausserhofer visited the Humboldt Institute for Internet and Society as a Research Fellow in summer 2013. His fellow project was titled *Workflows in Data Journalism*. Julian Ausserhofer is a digital media researcher at the Institute for Journalism and PR at Graz University of Applied Sciences (FH Joanneum). He is also a PhD candidate at the University of Vienna, Department of Communication, and part of the Open Knowledge Foundation Austria. His research interests include the political use of social media, Open (Government) Data, online publishing practices and data driven journalism.

FELLOWS

For outstanding scholars from all over the world, the Humboldt Institute for Internet and Society offers the opportunity to visit our institute for a subject-specific exchange. Candidates from all fields of Internet research are invited to apply with independent transdisciplinary projects that connect to our research agenda. Our fellowship programme provides innovative thinkers a unique opportunity to exchange experiences and to start new initiatives in an inviting intellectual environment. The selected fellows are invited to collaborate in a growing international team and to participate in the research activities at the institute. We especially encourage early stage researchers to actively shape their stay according to their research interests.

PAULA KIFT

To have or not to have:
the true privacy question

If you do not see a policeman outside of your door, you are looking out of the wrong window. An analogy of privacy violations.

THE ABYSMAL CONCEPT

What is privacy and why does it matter? Scholars have been struggling to find a universal answer to these questions ever since Warren and Brandeis published their famous article on the *Right to Privacy* in 1890, lamenting the intrusions of press and media into the personal lives of US American citizens. But not even in their wildest dreams would Warren and Brandeis have imagined the kinds of privacy invasions made possible today. The Internet has elevated the scale and scope of personal data mining to formerly unprecedented levels. The recent surveillance scandals[1] are but an example of how public and private actors readily exploit the literally boundless availability of personal information online.

We are left with a feeling of vague unease. We are afraid of losing our privacy. And yet we struggle to define what that even is. As Daniel Solove once deplored: "Privacy is a concept in disarray. Nobody can articulate what it means" (2006, p. 477). He has a point. After all, when we worry about privacy, is it our physical privacy, thus our right to solitude and isolation that we are concerned about? Or should we rather fret about our informational privacy, thus our

right to data privacy, secrecy and confidentiality? Proprietary as well as decisional privacy further add to the terminological pandemonium (Allen, 1999, p. 723 – 24); more recent contributions include up to seven different classifications of privacy (Finn et al., 2013). But even if we were able to answer all these questions for ourselves, the singularity of our privacy needs would necessarily preclude us from daring to make any generalisations (Nissenbaum, 2004). Then what is it that makes us frantically cling to a concept whose proper meaning we cannot even functionally elucidate? If economics is the abysmal science, then I suggest that privacy might very well be called the abysmal concept.

Perhaps it does not matter. After all, "many things have well-established but inappropriate names – for example, the Holy Roman Empire, which, as Voltaire pointed out, was neither holy, nor Roman, nor an empire" (Oppy, 1995, p. 1). The Holy Roman Empire nevertheless existed or at least we realised that it once had, as soon as it fell apart. "Don't it always seem to go, that you don't know what you've got til it's gone", Joni Mitchell sang to us in 1970. The same may well hold true for privacy.

Therefore, rather than wasting our words on the futile undertaking of understanding what it means to have privacy, I propose we should devote more attention to the curious state of affairs we would encounter if we did not. Indeed, to have or not to have – that is the true privacy question.

PRIVACY RIGHTS AND VIOLATIONS

Solove was right on track. As he gave up on defining what it meant to have privacy, he started thinking about the different ways in which it could be taken away from us. Solove did not attempt a taxonomy of privacy but rather a taxonomy of privacy violations. According to Solove, privacy violations fell within four broad categories: invasion, collection, processing and dissemination. Each category can then be further subdivided (Solove, 2006). However, while it may be easy to imagine privacy violations in everyday life, information technologies complicate conceptualisation. We perceive a difference between somebody opening our mailbox and tearing open all our letters, and somebody tacitly scanning our email exchanges from afar; the physical invasiveness of the former makes the privacy violation more tangible, while the faraway gaze of the latter seems less intrusive. There is a "threshold of abstraction" (Székely, 2010, pp. 167 – 168), so to speak. Indeed a study on online privacy concerns conducted at Humboldt-Universität zu Berlin in the fall of 2012 revealed that while university students expressed concern about their privacy online, they were incapable of formulating the origin and nature of their fear (Krasnova, Kift, 2012). However, if we want to change the course of politics, we need to understand what blanket surveillance actually implies. What does it mean 'to have or not to have privacy' in the information age? I would like to explore this question by means of an analogy, focussing on the relationship between citizens and the state.[2]

TO HAVE OR NOT TO HAVE: AN ANALOGY

Invasion

Imagine that every day, in front of every house, there was a police officer. He does not talk to you, he does not bother you, he is merely present. In fact, his presence is so inconspicuous that you barely notice him. What does this policeman do? He stands in front of your house and watches you. He watches every person entering and leaving your house,

the friends and neighbours with whom you chitchat on the street, the greengrocer who delivers local vegetables once a week. Of course, you need not worry about him. After all he is only there to increase your safety. If you have nothing to hide you have nothing to fear[3]. Little does it matter that you are a well-intentioned, law-abiding individual. The policeman is out there for people who seem good but could be bad. Just like Google, he wants to know the answer before you know the question (Miller, 2013). He is there to protect citizens like you. But would his continuous presence make you feel uncomfortable? It probably would. He has crossed the boundary of the first of Solove's privacy violations, namely invasion. He is a stranger who has entered your private sphere.

Collection

But let us take the analogy a step further. Imagine the policeman would not only watch your relationships but also take note of them. Every day, he records the interactions you have with your surroundings. He does not listen to your conversations but he knows when, with whom and how often you talk. He recognises your husband and children by now and he has figured out that the old lady who brings over cake once a week is your mother. Your good friend Susan is clearly the mother of a classmate of your son at school, as the former often picks up the latter from your house. The policeman sees all of that. The only interaction that may seem a little strange is the one you have with your colleague John at work, who seems to only come around when your husband is on a business trip. Sometimes John doesn't leave until the morning. But of course you need not be bothered that the policeman knows of your extramarital affair since that is not the kind of information he is looking for. And of course it is only in his professional records to which only he and perhaps another few hundred or thousand of his colleagues have access to (Lennard, 2013). But no worries, all the information is kept confidential. Would his knowledge nonetheless disturb you? It probably would. The policeman has crossed the boundary of Solove's second privacy violation, namely collection. He is a stranger who is collecting information about you.

Processing

But of course the story does not end there. As any good policeman he has to be alert. What if your interactions become suspicious? Imagine you were interested in buying a new pressure cooker. You have a chat about it across your garden fence with your neighbour. The policeman takes note of it. At the same time, your husband is looking for a new

backpack and equally asks around. This is when alarm bells should start ringing. This interaction seems innocent to you? Thankfully, we have men and women working for our police departments who are acutely aware of the danger of the search combination of pressure cookers and backpacks. Did you know that pressure cookers are not only helpful for cooking rice but also for building bombs? And that bombs are often transported in backpacks? Of course, if you are aware of this information it seems much more justified if six officers from a joint terrorism task force show up in front of your door and ask you where you are from, where your parents are from, where your parents live and where you work.

Do you own a pressure cooker? No, but we own a rice cooker. Can you make a bomb with that? No, but we use it to cook quinoa. What the hell is quinoa?

Would their questions anger you? They probably would. But the policemen are just doing their job. A hundred false alarms are better than one real one. Do you not agree? You do not?

Dissemination

What has become of your privacy at this stage? The policeman knows when, with whom and how often you speak and, he keeps track of this in an enormous database. He draws connections between the content of your conversations and the people with whom you converse. He knows about your marriage and your extramarital affairs. He also knows that you like to travel and eat quinoa.

It used to be you who chose with whom you would share this information. But of course we cannot afford this kind of luxury anymore in the information age. We are permanently threatened, we need to fear. Sharing our whole lives with the police is just the price we need to pay for our safety. Our right to privacy was replaced with a right to security. Was our intimacy replaced with an illusion?

Again: What has become of your privacy? Perhaps you are still not concerned. Perhaps you are not even bothered. After all, the information is kept confidential. All your information is stored in the same place, accessible only to the police. How convenient. But is it not convenient for criminals too? What if somebody could access the system? It seems unlikely. Policemen are professionals after all; they take great care of the security

THIS IS AN ARTICLE FROM **PAULA KIFT**

This article was published on 3 December 2013 in the Internet Policy Review (see p. 71/p. 121). Paula Kift is a student assistant at the Humboldt Institute for Internet and Society within the research area Global Constitutionalism and the Internet. Her research interests include global Internet governance in general, and global privacy governance and norm evolution in particular.

GLOBAL CONSTITUTIONALISM AND THE INTERNET

Global constitutionalism is primarily understood as a normative theory that focuses mainly on the individual – not so much on the nation state. It finds an expression in generally recognised normative principles such as human dignity, democracy and participation, the division of power and the rule of law. The multitude of global challenges and the increasing density of the relations among people in the emerging global civil society are the reason for the search for legitimate structures and efficient regulatory processes beyond the state. Social networks, access to information, knowledge and culture, as well as new forms of open government, also change the state itself and its relationship to the individuals within it. The research area Global Constitutionalism and the Internet is therefore comprising national, sub-state and transnational structures of political order.

of your information. The system may not be bulletproof. But again the likelihood is low that somebody would be able to steal your information and use it for criminal purposes; criminal purposes such as blackmailing you about your love affair with your colleague and threatening to go public with it. If the latter were to happen, that would of course be unfortunate. Would the incidence devastate you? It probably would. The last frontier of Daniel Solove's privacy violations would be breached. Your information has been disseminated and entered the uncontrollable, unprotected, unpredictable public sphere.

O PRIVACY, WHERE ARE THOU?

But how does all of this relate to you? The last time you looked out of your window there was no policeman standing in front of your door. But perhaps you were looking out of the wrong window. The NSA is not guarding your door; it is checking your inbox (Gellman and Soltani, 2013, October 15; Gellman and Soltani, 2013, October 30; Glüsing et al., 2013). Your metadata reveals exactly when you communicate, with whom and how often. If you continuously communicate with one contact, this contact will appear suspicious[4]. This contact could be your extramarital affair. But it could also be a criminal lead. Do you still believe that if you have nothing to hide you have nothing to fear? Did the story about the pressure cooker and backpack seem implausible to you? It was not a story. It happened to Michele Catalano, resident of Suffolk County in the State of New York, in August 2013. Catalano had searched for a pressure cooker, her husband for a backpack online, following which Suffolk County Police Detectives came around for a visit. The conversation cited above is a direct quote from the interaction (Bump, 2013). The Suffolk County Police Department had indeed never heard of quinoa. But it had heard of backpacks and bombs. Monitoring our Google searches and email exchanges is far worse today than waiting in front of our doors. How many times have you spoken to your neighbour today? And how many emails have you sent? Chances are, that the majority of your interactions take place online; on your laptop, your tablet, your smartphone. Just because you cannot see the NSA does not mean it is not there. Its invisible presence should be a matter of grave concern to you. It certainly is to me. There is no justification for blanket surveillance. There is no proof it is effective. It cannot be. There is no such thing as a right to security. Life will always be beyond our control. Intrusions are only justified by threat. And threats need to be substantiated by more than mere possibility. If searching for a terrorist is like searching for a needle in the hay, then what the NSA is doing is just adding more hay (Mueller and Stewart, 2013). So instead of fighting windmills, we should fight for our right to privacy

instead. We need to have privacy; we need it to live and love, to make mistakes, and to grow. We need it as individuals and as a society. And we can have it if we press our legislators to return it to us. Closing your eyes and hiding under the bed will not make the monsters go away. It is time to start fighting back. ◆

FOOTNOTES

1 On June 6, Guardian journalist Glenn Greenwald published the first of a series of articles focused on secret surveillance programmes conducted by the National Security Agency (NSA) in the United States and the Government Communications Headquarters (GCHQ) in the United Kingdom. The documents were provided by whistleblower Edward Snowden. For a chronology of the events, see Lütticke, 2013.

2 While it is outside the scope of this article, it should be mentioned that the issue of privacy could and should also be analysed in the context of violations performed by non-state actors, such as IT, medical and insurance companies, just to name a few.

3 For a more in-depth discussion of the fallacy of the 'nothing to hide, nothing to fear' argument, see Solove, 2007.

4 For an impression of what kind of information metadata reveals about you, try logging into the MIT Immersion program with your Gmail account: https://immersion.media.mit.edu/

REFERENCES

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JÖRG POHLE

Cloud Computing and the EU Draft General
Data Protection Regulation

About 30 legal practitioners, computer scientists and social scientists came together to attend the interdisciplinary workshop *Cloud Computing and the EU Draft General Data Protection Regulation. Standards, Design Considerations, and Operations Recommendations for Privacy-friendly Cloud Computing* held on the premises of Humboldt-Universität zu Berlin (HU) on 26 July 2013, ahead of the 87th Meeting of the Internet Engineering Task Force (IETF). Jointly organised by the Alexander von Humboldt Institute for Internet and Society (HIIG) and the Humboldt-Universität zu Berlin in cooperation with Cisco Systems, Inc. as part of the Global Privacy Governance project, the aim was to gain a common, interdisciplinary understanding of privacy and data protection, particularly from the point of view of balancing legal requirements with the means of technical implementation. The purpose of the workshop was to draw up a number of specific Operational Privacy requirements pertaining to Cloud Computing.

SESSION 1: NICOLAS DUBOIS AND CASPAR BOWDEN

During the first workshop session, Nicolas Dubois from the EU Commission presented the latter's proposals for reforming the European Data Protection regulations: data protection is to be updated in line with the Charter of Fundamental Rights in order to meet the challenges of technical development. Apart from introducing Privacy by Design and Privacy by Default into the General Data Protection Regulation, the focus will also be on other measures, such as revising the obligations of data processors with regard to risk management and the need to include standard contractual clauses on data security and support for binding corporate rules (BCR). Backed up with sound evidence, Caspar Bowden, the former privacy consultant at Microsoft's European branch, not only criticised the past ignorance displayed by European institutions in matters relating to undercover surveillance measures conducted by intelligence services, whose existence has been an open secret for a long time, but also showed that European citizens and organisations are entirely at the mercy of these measures according to the provisions of the US Foreign Intelligence Surveillance Act (FISA), for instance. Instead of protecting their citizens, European countries and the EU Commission were biased towards the interests of industrial companies, particularly those of US cloud-computing providers. The least that Europe could do under the circumstances is to develop a cloud infrastructure of its own.

The discussion that followed on from this talk dealt mainly with the possibilities and limitations of legal restrictions as well as certain time aspects: How long would it take to build our own cloud infrastructure? For how long are encoded data secure? For what period of time are data retained?

SESSION 2: ALEXANDER DIX AND ALISSA COOPER

Dr. Alexander Dix, Berlin's Commissioner for Data Protection and Freedom of Information, opened the second session with a talk on the legal demands made on technical standardisation, which has hitherto focused on data processors being able to set their own standards. This practice lowers the level of security and has to be overturned, he said. Dix also called for an international convention to regulate what secret services are allowed to do on the Internet, and what they are not. To wind up his talk, he drew attention to the Resolution of the Conference of Federal and State Data Protection Commissioners dated 24 July 2013, according to which the authorities will not issue any new licence for the transfer of data to the US under the terms of the Safe Harbour Agreement. Alissa Cooper from the Center of Democracy and Technology subsequently presented the RFC 6973 Privacy Considerations for Internet Protocols that was completed shortly before the workshop commenced. Based on the IETF's goals for devising technical protocols for Internet communication, she kicked off with the very limited extent to which privacy supervision could be deployed within the framework of the IETF, explaining that data security is primarily a political problem, whereas the IETF is only concerned with technical matters.

The subsequent discussion revolved primarily around the question of who should standardise what, in terms of privacy and data protection, and how they should go about it. The general consensus was that technicians have since turned their attention to this topic instead of just discussing the safety aspects.

SESSION 3: FRED BAKER, GUNTER VAN DE VELDE AND JÖRG POHLE

Fred Baker, a Cisco fellow and former Chairman of the IETF, opened the third session with a preview of proposed Internet requirements for Operational Privacy. Of the two threats to privacy as identified by Baker – what people disseminate about themselves and what can be gleaned from their conduct and their relationship to other people – the

THIS IS AN ARTICLE FROM **JÖRG POHLE**

This article was published on 5 August 2013 on the HIIG Blog. Jörg Pohle conducts research on the history and theory of data protection and their implications on the design of ICT systems. He is the project coordinator of the research project Global Privacy Governance.

GLOBAL PRIVACY GOVERNANCE

The research project Global Privacy Governance aims to conceptualise the processes of global regulation in the field of data protection and privacy by means of a multi-stakeholder process. Understanding that the border-crossing dimension of the Internet is challenging the fragmented legislative approaches adopted by national legislatures explains why new legislative initiatives are undertaken to tackle the upcoming problems at a European level. Yet given the global reach of the Internet, it has become clear that legislation even at European level cannot produce the desired effects, thus calling for a global problem-solving approach. Research efforts are therefore directed towards the question of how such a global approach could be conceptualised drawing on experiences with regulated self-regulation.
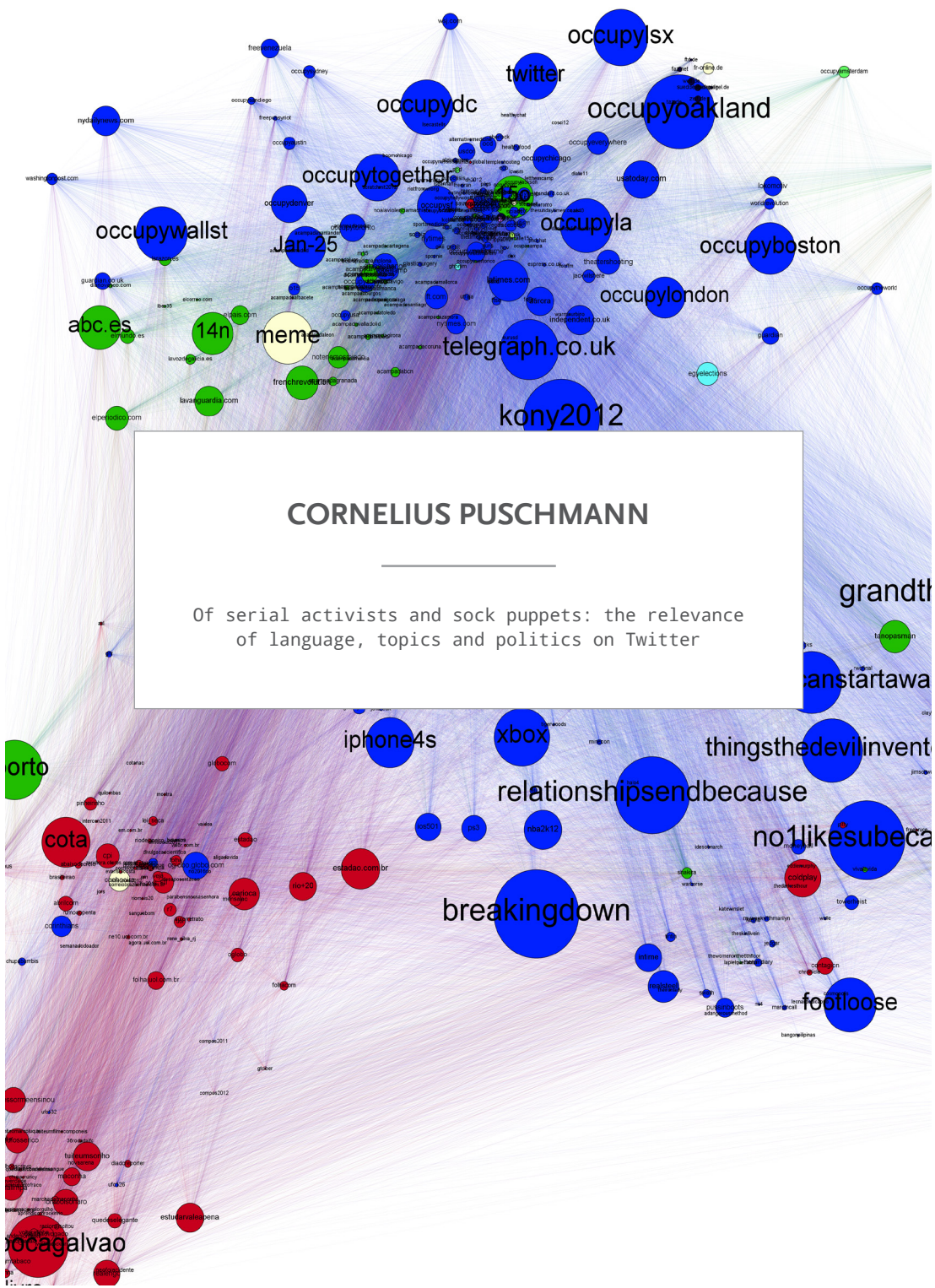
latter poses the greater risk. So technological advancement should aim at providing users with different options that are both comprehensible and designed to facilitate the choice between spreading or withholding particulars. In his capacity as Chairman of the IETF's Operational Security Working Group, Gunter Van de Velde proceeded to outline the working group's mission, pointing out that the draft that had been put forward for an RFC was not so much a documentation of best current practices, in his opinion, but constituted more of a problem analysis – a taxonomy and problem statement. The draft itself was then introduced by the person who wrote this review, Jörg Pohle from the HIIG, who made special mention of the data security protection goals, by way of a guideline.

This was followed by a discussion about the inter-relationship between the law and technology in implementing privacy and data protection requirements and about particularly vital individual demands, such as the call for an independent supervisory structure.

OPERATIONAL PRIVACY OUTLOOK

Although the workshop failed to achieve its ambitious aim to define clear Operational Privacy requirements specifically for Cloud Computing activities, it can still be considered a success: firstly because it established a common understanding of the problem and secondly because this preliminary work, coupled with the outcome of the discussions at the workshop, forms a good basis for drawing up a taxonomy and problem statement on Operational Privacy, which can then be passed on the IETF's Operational Security Working Group level, possibly with a view to producing a document on best current practices in the longer term. ◆

CORNELIUS PUSCHMANN

Of serial activists and sock puppets: the relevance
of language, topics and politics on Twitter

Does the Internet cause revolutions? Frequently that is suggested, whether in the discourse surrounding the Arab Spring, Stuttgart 21, or the Occupy movement. The Internet, conventional wisdom assumes, is a global village that enables seamless and open communication. Social media such as Facebook and Twitter allow users to rapidly exchange information and disseminate views, something that was arguably more difficult to accomplish in the past. But critics such as Malcolm Gladwell and Evgeny Morozov call this into question – clicktivism alone does not make a revolution, they counter.

HOW DOES POLITICAL ACTIVISM IN HASHTAGS WORK?

In a conference paper my colleagues Marco Bastos, Rodrigo Travitzki and I recently explored this question. We analysed 455 hashtags on different topics and in different languages (mostly English, Spanish and Portuguese tweets), with a total of over 1 million different contributing users.

SERIAL ACTIVISM

One of our findings is that there are forms of serial activism: in many cases the same users tweet on a variety of issues. In itself this is not surprising, but the intensity is significant – roughly 70% of all users in our dataset tweeted under at least two different hashtags. Political hashtags are especially popular among users tweeting about multiple causes (for example Occupy and the Spanish Indignados movement). This engagement does not automatically translate into political activism outside of Twitter, of course. But users inside our sample who tweeted under political hashtags often did so for multiple causes.

SOCK PUPPETS

Another interesting finding is the addressing and mentioning of well-known users and institutions under activism-related hashtags. Users such as @barackobama, @occupywallst or @cnn appear in a large number of tweets by other users without contributing themselves. It is difficult to tell exactly why this happens. Tweets referring to news items are often commented on and redistributed under activist hashtags, but this alone does not explain the phenomenon. It seems likely that activists want to recruit prominent users to their cause (or at least catch their attention). For example, passive users total almost 20 million followers – five times as

many as the actively tweeting users in our data. On the other hand, even without tweeting, such sock puppets can generate attention, for example when users actively search for tweets related to (i.e. mentioning) Barack Obama, without clarifying that he does not necessarily endorse the cause he is associated with through the tweet.

THE IMPORTANCE OF LANGUAGE

Unsurprisingly, language plays an important role when examining how closely individual hashtags relate to one another (measured by the users they share). The visualisation on page 38 shows the hashtags colored according to the language that is dominant in them (blue for English, red for Portuguese, green for Spanish). The closest association is between hashtags that share the same language, although Spanish and English hashtags are somewhat closer associated than those in English and Portuguese. Clearly, there are also thematic groups: the Occupy movement, Kony2012 and the Spanish Indignados (15M) movement are internally connected and interconnected. This transcends language barriers, indicating that these are related to transnationally relevant events.

SUMMARY: THE ACTIVIST STRATEGIES OF INDIVIDUAL COMMUNICATORS TRANSCEND LANGUAGE BARRIERS

The results of our study suggest that political movements such as Occupy and 15M are driven on Twitter by highly active and politically engaged users, who communicate about a range of issues and transcend language barriers. ◆

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THIS IS AN ARTICLE FROM **CORNELIUS PUSCHMANN**

This article was published on 10 April 2013 on the HIIG-Blog. Cornelius Puschmann is an associate researcher at the Humboldt Institute for Internet and Society as well as a postdoctoral researcher at the Berlin School of Library and Information Science (IBI). His research interests include CMC and Open Science, as well as ethical and methodological issues surrounding social data.

ASSOCIATE RESEARCHERS

We maintain close research links with numerous academics whose research interests and topics connect to the field of interest of the HIIG. Working at institutes from all around the world our Associate Researchers provide input from diverse backgrounds and help us to cover topics and knowledge beyond our regular agenda.

"Science fiction writers who try to predict the future are like cocaine dealers who take their own coke, it is a dangerous amusement to try and predict the future." – Cory Doctorow

INTERVIEW: CORY DOCTOROW

Flashback to 8 May 2013; it is the third day of the Re:publica conference event in Berlin. The science fiction writer, blogger and technology activist Cory Doctorow has just given his talk *It's not a fax machine connect to a waffle iron* followed by a series of press interviews. Nevertheless, he is willing to do yet another spontaneous interview. My colleague Theresa Züger joins me with a few questions. We ask Cory Doctorow how he thinks the Internet impacts our lives, the way we share knowledge and the way we tell stories. We also ask what he identifies as the core issues in current debates about the Internet, what he would do if he could change someone's mind regarding Internet regulation and how he envisions the future Internet. Here is a shortened version of his answers.

Kaja Scheliga: From your perspective, what are the most important hot topics discussed on the Internet about the Internet?

Cory Doctorow: The big themes are the use of regulation of computers and networks to solve social problems, the willingness to use the Internet as a surveillance tool, the moral hazard of governments using the Internet as a surveillance tool because it leads them to underregulate companies that try to get people to overshare because that way they have more information to pull in. It also incentivises them to work with people who in any other context would be considered criminals and instead of chasing those people with cops they chase them with checkbooks. I think those are some of the major themes, also network neutrality, but for me the overarching theme is treating the Internet with the respect it deserves, treating it as a globally shared ecosystem that is vital to ongoing human health and agency and security and economic health.

When Martha Lane Fox, who is now a baroness, was made the UK champion for Digital Inclusion she commissioned a study by PricewaterhouseCoopers where they compared two groups of people who lived in public housing estates in the post-industrial north of England. One group were people who have been in a pilot project to give them free Internet access and the other group had not. And what they found was that the group with free Internet access had lots and lots of advantages. All the things that we use to measure the quality of social programs were improved by the Internet.

And yet, whenever the Internet is part of a problem, and it is part of a lot of problems, some of them I think are important and some of them are not. But like anything from human trafficking, to offending the King of Thailand, to pornography, to child pornography, to copyright infringement, to Jihadism, the answer is always: it is just the Internet, we can afford to mess with it. It will just be removing the Jihadism feature from the Internet and not breaking the Internet in some important way and depriving a lot of people from the benefit they derive from it.

KS: How does the Internet change the way we live?

CD: I think it changes it in every way. The foundational piece of why it changes it in all those ways is that it lowers the cost of coordination. Making it cheaper to do things together means that we can do more and we can do more with less hierarchy. So on the one hand organisations can do more too. Governments are empowered to do a lot of things they could not do before, some for good and some for bad. There is increased surveillance and increased control but also it is cheaper to provide positive social intervention in the form of education materials and health information and so on, or even reaching out to disadvantaged populations to track human trafficking. So that is what it does for organisations – but what it does for people who are not in formal organisations is that it increases the amount of things that you can do without having to formally organise or within the framework of a much more lightly organised institution. We can build something as complicated as an encyclopedia with the kind of organisation infrastructure that we used to have to gather to run a bake sale. Everything we do that requires more than one person, everything we do that is superhuman, that transcends the limitations of human, the Internet supercharges for good and for bad.

KS: What are the challenges of sharing knowledge on the Internet?

CD: There is a bunch of policy challenges related to copyright and also to the way the journals operate if we are talking about academic work here. And the chokehold that journals have over the careers of academics that requires academics to enter into this very one-sided transaction with them that ends up costing their own institutions extra money. In order to get a raise from your boss you have to sign over your copyright to a journal that is going to charge your institution tens of thousands of dollars a year to have the article that they paid to have produced in the first place. This is certainly an institutional barrier to sharing knowledge. You could change the way we measure impact factors, you could change the way we do career advancement in the academe, you could legislate certain requirements for any kind of research that received public funding that would certainly tilt the way that the institutions do it, those are all important. Copyright infrastructure makes it much easier to selectively sensor the Internet. So research that is controversial is easier to remove.

The technology transfer programs from most institutions are a net cost not a net gain, you spend more money licensing from institutions that used to give it to you for free, than you make by licensing out. Just think about it, we have a bunch of people giving each other stuff for free and then they all start charging money for it and paying an intermediary to manage those transactions, there is entropy in the system. That means that it is much easier to talk about knowledge as property and for states that have inconvenient facts emerging from their publicly funded research to suppress those facts on the grounds that they need to suppress the publication in order to command the highest price for those facts.

KS: How does the Internet impact the way we tell stories? Or maybe the way you tell stories?

CD: Certainly I allow my art to be freely shared on the Internet and I do so for both political and artistic reasons. I think it is a fact, whether or not you regard it as a problem, it is an incontrovertible fact that everything that people love that is artistic will be shared on the Internet. So if you are making art that is not intended to be shared, you are not making contemporary art. That is not a sin, there is a lot of good art that is not contemporary art.

I am a science fiction writer so I should be engaged with the contemporary, if not the future. And so I do make my work freely available. Certainly the existence of my blog is an enormous tool for composition, by taking up everything that I find that seems significant and turning it into a blog post for public consumption I help myself remember it for later retrieval and use in my work. So what ends up happening is that all of the bits and pieces, all the fragments kind of turn into a supersaturated subconscious solution of potential story ideas, and eventually some of them will stick together and nucleate and you get spontaneous crystalline formations of novels and stories and speeches and articles out of all this stuff just laying around in there.

KS: Being a 'cyber-utopian', what is your vision of the future Internet, where do you think it is going?

CD: I think science fiction writers who try to predict the future are like cocaine dealers who take their own coke, it is a dangerous amusement to try and predict the future, so I do not. But I am optimistic that lowering the cost of working together opens up possibilities for us to do things that are truly remarkable, that allow us to do more with less hierarchy. I think hierarchy is one of the necessary evils of the pre-Internet era and it is becoming less necessary by the day thanks to cheaper coordination. But it opens up existential threats, and some of those are in the form of surveillance and control and some of them are in the form of crime, and some of them are at the nexus of those two things where the rubric for surveillance and control is fighting crime and where the tools of surveillance are in control or developed by criminals.

Theresa Züger: If you look around do you think that we under-stand well enough what the Internet means to us now and will mean for us in the future?

CD: No, I do not think so at all. I do not pretend to have a complete understanding of it either. Gardner Dozois, the science fiction editor, once said that the job of a science fiction writer is to consider the car and the movie theatre and invent the drive-in and then go on to predict the sexual revolution. But what he missed was that before the car and before the sexual revolution and before that need for every teenager to get a car in order to get laid there was no reason for people who were civilians in America to carry photo ID. And so the database nation has its origin in the car too. The production and widespread use of government issued identification is really the story of the car. So some of us are talking about drive-ins and a few of us are talking about sexual revolutions and some of us are talking about the database nation. But when you think about all the things that come out of the database nation, nobody is talking about those fourth- and fifth-order effects of the Internet. I imagine in a hundred years our descendants will look back at us and say: you thought that the major impact of the Internet was this, that and the other and you missed this entirely different thing that was way weirder and more interesting.

TZ: A little mind experiment: if you could change some people's minds, not thinking about the moral part of that question, mak-ing them understand something that you think is really impor-tant to understand right now, what would it be and who would you choose? More the people, more the policymakers or more company people?

CD: If I could change some people's minds, I would change policymakers' minds and I do not think that there is any one person who can do it. I do not believe in a great man theory of history. But I think that if you could change policymakers' minds overall about the second- and third-order consequences of regulating various social ills by trying to regulate the Internet that that would be enormously powerful in terms of safeguarding the future.

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THE WEEKLY JOURNAL CLUB

Wednesday afternoon is Journal Club time – organised by Kaja Scheliga. We stop writing our own papers and gather for an hour to talk about other researchers' work. One of us presents and then we discuss the work together. Most times we talk about papers; sometimes we talk about books, reports, conferences or ideas. Occasionally we open our doors and invite guest speakers. Come along next time.

DESK OF KAJA SCHELIGA

DIGITALER SALON

Do we need ethics for robots? Are computer games the new novels of the 21st century? How are MOOCs changing higher education? For more than one year we have been discussing those and many other questions in our monthly talks called 'Digitaler Salon'. This event series in cooperation with the German broadcasting agency DRadio Wissen investigates the impact of digitisation on society. Once a month we invite special guests from academia, journalism and economy in order to engage in a dialogue with the audience and the #Dig-Sal-Twitter-Community. Moreover, the discussion can be followed via livestream. DigSal is aired by the radio programme NETZ.REPORTER, a production of the Kooperative Berlin on DRadio Wissen.

UTA MEIER-HAHN

How the infrastructure of the Internet disappeared
and why we ought to go look for it

Edward Snowden's revelations indicate a massive breach of trust in Internet infrastructure. However, there is one positive aspect to his revelations: they lead to a greater public awareness for questions regarding the net's infrastructure. Mainstream media have started to question the geographical location of data centers, address encryption practices or to inquire Internet exchange points. We should be thankful for this. And we ought to identify elements that make Internet infrastructure visible, so as to conceptualise points of entry for understanding it before it disappears into oblivion again.

PROCESSES OF DISAPPEARANCE

Infrastructures can easily disappear from general perception. The screenshot below, taken from Google Trends, shows how the volume of searches for *Internet infrastructure* has decreased since the beginning of the recordings in 2004.

order to use the Internet today, non-professional users hardly ever have to deal with this materiality – except at the end points of the network. But even there, the infrastructure increasingly deprives users from perceptibility.
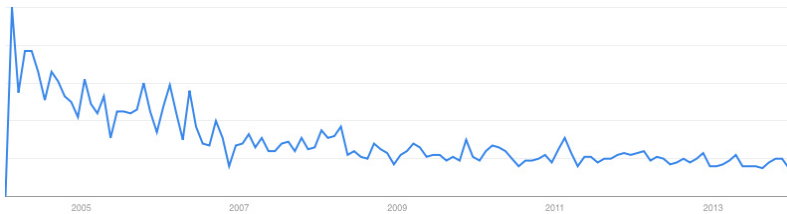
Visualisation of *Interest over time* for the search term *Internet infrastructure* taken from Google Trends.

While this chart has serious flaws from a scientific perspective – no scales, no variables for comparison, undifferentiated anglophone clipping – it inspires further thinking about visibility and a loss of interest in infrastructure.

Looking at the physical aspects of Internet infrastructure, it is possible to trace a process of absorption.[1] Internet infrastructure has a materiality that ranges from data centres, to cables, up to transmission facilities. But, in

In the mid 1990s, the early days of the European wire-based Internet, the endpoints could be associated with modem noise, various cables and a fixed location. Today, visibility is reduced to a socket in the wall, few cables and the WiFi router. The latter dissolves the Internet into our personal sphere, weakens the restriction of use that comes with locality and lowers the sensory perceptibility of the infrastructure.

When wireless (mobile) access infrastructure developed, invisibility clearly was identified as an advantage from the outset. From a user's perspective, there was no materiality to the Internet infrastructure, unless one lived close to a transmission tower. Wireless Internet reached us as a feature in mobile phones. To date, we refer to smartphones, and not to Internet devices with phone functionality – as if telephony absorbed the Internet and not vice versa.

Wireless Internet infrastructure also contributes to a blurring of the endpoints themselves. In metro-zones, Internet access has become so ubiquitously available that it has become part of the environment: There is no need for an act of connecting. Being connected is the status quo. Even when there is no intention to actively access the Internet, apps ensure that resources of the Internet infrastructure are constantly being tapped into.

What is left to be observed of the Internet infrastructure are apps, says Internet researcher Jeanette Hofmann. They settle on the interface to the tangible, the physical. Apps are the cars of the Internet. Through applications, users align the infrastructure with purposes. They help mobilise resources to pursue other activities. "[Infrastructure is] part of the background for other kinds of work," writes the ethnologist Susan Leigh Star (Star, 1999, p. 380). She points out that invisibility is a hallmark of effective infrastructures. However, effective only means that the infrastructure works for someone, not necessarily for everyone. "One person's infrastructure is another's topic, or difficulty" denotes Star on the relational character of infrastructure (Star, 1999, p. 380).

"VISIBLE UPON BREAKDOWN"

Casually speaking, anyone who has a problem with the infrastructure will notice it. In Star's words: "Infrastructure becomes visible upon breakdown" (Star, 1999, p. 382). As an example for a breakdown in an information infrastructure, Star mentions a server failure.

However, looking at areas where Internet infrastructure has developed in a similar manner to Germany, this example no longer appears very instructional: Since for most users perceptibility of Internet infrastructure is reduced to the interfaces of apps, any breakdown experience is limited to error messages within those apps. In other words: What is visible at breakdown is a breakdown, no more; the failure of a delegated action. In infrastructure terms, when dealing with apps, users face empty signifiers.

Unlike when encountering a pothole in a road, Internet users can usually neither determine the point of failure of their Internet experience nor can they identify who may be held responsible. Error sources may range from the device over the software to processing units on other

continents. The infrastructure of the Internet remains unrecognisable to those who do not deal with it professionally, such as network engineers.

THE TASK: TO MAKE INTERNET INFRASTRUCTURE VISIBLE

Science can contribute to making the infrastructure of the Internet more visible and show, i.e., *Hidden Levers of Internet Control* as Laura DeNardis titled her paper on governance through infrastructure (DeNardis, 2012). But more systemisation can be achieved. Broadly varying uses of the term *Internet infrastructure*, of which I only list some here, show that. Internet infrastructure can be approached from different angles:

physical components from cables to the spectrum: "physical layer" (Benkler, 2000, p. 3);

entities that are involved in providing or controlling it: "organizations and institutions" (Kritische Infrastrukturen, n.d.) and actors "designers, developers, users, administrators" (Bowker, Baker, Millerand & Ribes, 2010, p. 98);

technologies that are being used: "software systems like the Domain Name System (DNS)" (Critical Internet Infrastructure, 2013);

technical architectures and related **design principles** that underly the technologies: "logical layer", "software and standards" (Benkler 2000, p. 3), "Protocol Politics" (DeNardis, 2009), layering and best-effort principle (see VanSchewick, 2010);

the **purpose** or **group of users**, "for public use" (Frischman, 2007, p. 3), "regardless of the type of use or identity of the user" (Frischman, 2007, p. 1), "enables knowledge work" (Bowker et al ., 2010, p. 98), "common facility" that "must be free of entry barriers to effective communication" (Benkler, 2000, pp. 10 & 14 on core infrastructure);

the **resources** that it allows to **activate**: "content layer" (Benkler, 2000, p 3); "pervasive enabling resources in network form" (Bowker et al., 2010, p. 98); "supply systems of our society" (Kritische Infrastrukturen, n.d.)

a mixed form: "interrelated social, organizational, and technical components or systems" (Bowker et al., 2010, p. 99).

Analysing the many approaches and tracing their origins is beyond the scope of this article. The list is by no means complete. It does, however, substantiate two things:

THIS IS AN ARTICLE FROM **UTA MEIER-HAHN**

This article was published on 8 December 2013 on the HIIG-Blog. Uta Meier-Hahn is a doctoral researcher, focusing on infrastructure and interconnection arrangements between Internet providers. At the Humboldt Institute for Internet and Society she is part of the research area Internet Policy and Governance and also works for the Internet Policy Review.

INTERNET POLICY AND GOVERNANCE

The research group Internet Policy and Governance examines processes of public and private ordering on the Internet. Seen from a social science perspective, practices of ordering are conceptualised as the interplay between socio-cultural, technical and legal norms. Particular interest lies in ordering processes and their significant impact on the further development of the Internet as a whole. Such processes span copyright law including its implementation, freedom of speech in social media and the transformation of Internet architecture. The research area seeks to combine two innovative schools of research: governance research conceptualises ordering processes as decentralised methods of regulation in which all relevant actors and regulation parameters are considered. The 'science, technology and society' (STS) approach of science studies emphasises the social character of science and technology development and conceptualises technology as "society made durable" (Bruno Latour).

1. Internet infrastructure is probably referred to more often than the term is explicitly put to use.

2. It suggests that wherever only a singular aspect of infrastructure is being addressed, any critical assessment should be accompanied by questioning the context and inquiring about possible interdependencies. This is what makes thinking about infrastructure interesting.

DETECT INTERPLAYS

This awareness ought to be rooted in net policy, that is for example, networking standards may fundamentally influence options of use. That the sociality organised around an Internet exchange point may contribute to where peerings between network actors come about – and thus, whose data has to travel long or short routes. That the suggestion to introduce something like a 'Schengen' or 'German routing' may lever influence for new players, or at least whet the appetite. Where national boundaries are introduced into the Internet for one purpose, they may as well be activated for other purposes. In sum, interventions that target one aspect of infrastructure can have side effects elsewhere.

Due to the revelations by Edward Snowden, we have not experienced a breakdown of Internet infrastructure in the way Susan Leigh Star has described it. It appears, the Internet experience of the vast user base has not been altered directly by the spying, storage and analysis activities at the junction points of the Internet infrastructure. On top of that, breakdowns cannot reasonably be attributed to sources in an Internet that is not only controlled in a distributed way but also ever more perceived through apps. However, such activities increase the likelihood of breakdowns in other spheres of our democracies, for example, by provoking chilling effects that prevent us from exercising the right to free expression. We ought to oppose this. A prerequisite is to pay more attention to the infrastructure of the Internet and its many facets. ◆

FOOTNOTES

1 I am referring to Germany here, but the same may hold true for other areas where Internet technology has been adopted in similar phases. Another story may have to be told for areas where Internet access has developed differently, like in Sub-Sahara Africa where mobile Internet always has been more important for the general public than fixed broadband.

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REGULATING RIESLING IN TIMES OF USER GENERATED COCKTAILS

It was a big surprise for all those present: Jeanette Hofmann and Wolfgang Schulz started off this year's Early Stage Researchers Colloquium with a keynote that demonstrated how cultural influences are able to change the mode of self-regulation and in which way they exercise influence on the criteria of quality.

They illustrated their reasoning by using a case study in the field of viniculture. In former times, wine had been deeply rooted in catholic liturgy, thus it was part of daily life. It had even been drunk for breakfast as a 'drink of moderation'. In 1907, this specific, peculiar role of wine led to the French Wine-Growers' Revolt. At that time, overproduction and grape vine diseases had started the crisis and southern France was forced to organise itself due to the pressure of these events. As a result, a new law against adulterated wines was achieved, flooding the market with new competition rules and conditions. In the US, however, wine was considered to be an intoxicating liquor. The alcohol prohibition had ensured that there was no chance to develop a growing of high-quality wines, at least not at that time.

The concept of self-regulation by the private Association of German Quality and Prädikat Wine Estates (VDP) on the one hand and the official inspections of wine quality on the other hand are good examples for quality assurance in Germany. In this co-regulation procedure, you could identify models of self-regulation and the approach of multi-stakeholder arrangements. The benefits and downsides were obvious: Expertise could be contributed expediently, however, most agents are simply not interested in a holistic approach but feel obliged to their specific area of interest. Consequences could be risks of market foreclosure through participation of potentially biased persons and innovation backlog.

The speakers concluded by stating that the concept of cultural embedding is essential for a proper understanding of Internet governance. In fact, the Internet was not just a new, unique thing. That is why traditional knowledge, of viniculture in this case, could still be made fruitful for Internet research.

The described keynote served as a prelude to one day full of thought-provoking talks by young scientists from all disciplines and brisk discussions on current issues of Internet and society. The Early Stage Researchers Colloquium was held in Berlin on 21 November 2013 in cooperation with the Friedrich-Ebert-Stiftung. Being part of the Doctoral Programme of the Alexander von Humboldt Institute for Internet and Society it was thematically set up by the doctoral researchers of the institute. A comprehensive wrap up documents the Colloquium's sessions and is available online.

🌐 www.hiig.de/esrc

JULIAN STABEN

Open Government and Open Science –
facilitated by Open Law

The initiatives Open Government and Open Science demand the opening of political and scientific processes. While Open Science proclaims the opening of steps of scientific work to the scientific community and interested laymen, the closely related idea of Open Government labels the respective sister phenomenon for the area of governance.

But what is the relevance of law for these phenomena of transparency or openness?

Both initiatives rely on an access to law as a means or the object of their respective processes. Open Government claims that citizens in a democracy should have unobstructed access to norms and measures they are bound to and affected by, in order to be able to open a dialogue about this with their representative and maybe be able to change it.[1] Open Science itself welcomes the unrestricted access to the object of research – in this case legal studies. Accordingly, in order to open science and governance, the law would have to be open.

In continental European legal systems written statute law prevails in most areas of law.[2] Both phenomena are therefore dependent on access to relevant statutes. Of course, actors in these areas can always acquire edited statute books with the most important acts of law in the respective bookshops – and many

German laws are for instance available via www.gesetze-im-internet.de. But both options are either expensive or fall short of the manifold possibilities of the combination of law and technology.

Now, what are the possibilities to make the law more accessible to these movements?

An initiative that is dedicated to increasing the accessibility of law, is the project BundesGit run by Stefan Wehrmeyer. It is the aim of the project to digitally prepare all German federal acts of law in order to expand the (technological) possibilities of processing them. If one assumes that Lawrence Lessig's claim that "Code is Law" is correct, then sometimes "Law is Code" might be correct, too. Therefore, Stefan Wehrmeyer uses the collaborative vision control system GitHub, which is normally used by programmers to upload their code and make it accessible to the public. Changes can be tracked using the version control. This already creates the conditions for the first possible use of the platform that is of legal academic interest: Changes in the law and single provisions taking place over years and decades can be made transparent to the user with simple tools. An interactive visualisation of the changes to the German Political Parties Act can already be found.

But the project also offers interesting opportunities for the legislative process,

provided that the German Bundestag were to embrace the possibilities. All the different drafts and changes made in the course of legislation could be tracked and made transparent. References rendered superfluous by amending laws – the 'error 404' of statutory law – could be prevented from early on. If a draft for a law were to be suggested in an area of particular interest to a person, this person could be notified about possible changes in the law, enabling him or her to participate in the discussion about the law. Laws passed and due to take effect could be directly updated in the user's device. The bothersome updating of loose-leaf statute books would be a thing of the past.

Furthermore, this offers much more profound possibilities to a lawyer's everyday life embodying the idea of Open Science, legal provisions could be linked to court decisions, papers and statute annotations published online.

These, at the present time, rather theoretical opportunities aside, the statutes are at the moment provided in a quite readable layout compared to other online sources. In a way, even the Banana Quality Norm Regulation looks inviting to read.

In the foreseeable future, however, German law students will not be taking their tablets or notebooks with a BundesGit-Application to exams instead of their Schönfelder or Sartorius statute books. But in the long run, the possibilities of the platform – maybe one day with the support of the Bundestag itself – will be used by academics, practitioners and interested laymen alike putting the ideas of Open Science and Open Government into practice. ◆

FOOTNOTES

1. About transparency and democracy Schauer, 2011 U. ILL. L. REV., 1348.

2. At this point this blog entry cannot focus on the practically not much less relevant access to court decisions.

THIS IS AN ARTICLE FROM **JULIAN STABEN**

This article was published on 8 April 2013 on the HIIG-Blog. Julian Staben's research focuses on the relationship between human rights and the Internet. His doctoral thesis examines chilling effects on the exercise of fundamental rights. At the Humboldt Institute for Internet and Society he is part of the project Participation in German Law.

PARTICIPATION IN GERMAN LAW

In the context of a comprehensive project concerning online participation in cooperation with the Hans-Bredow-Institute, this sub-project focuses on the e-petitions platform of the German parliament, the Bundestag. Until August 2012 the co-signment of an e-petition was only possible under a persons' real name. After that a petition could also be co-signed pseudonymously. This raises the question: How does the behaviour of those who participate change and who is actually using the platform? As one part of the project the data set will be analysed using a big-data approach to get an insight on the participants' behaviour on the platform, both in general and with a focus on the changeover in August. In addition to that, an online-survey will be carried out in cooperation with the office of the petitions committee. It will collect information about the users of the platform as well as their attitudes and motivations concerning e-petitions. The findings of the partial studies will be merged and in turn be integrated into and framed by the research concerning the structures for participation and motivation set by law.

PRIMAVERA DE FILIPPI

Foreign clouds in the European sky: how
US laws affect the privacy of Europeans

Cloud computing provides a large number of advantages to many Internet users: web-based applications such as web-mail, chats, online forums and social networks allow users to connect and communicate more easily; office productivity tools such as word processing, spreadsheets and online file storage enable users to work and collaborate with each other, without having to install any software on their own devices. Most of the perceived benefits are related to the concept of ubiquity or the ability to access data from anywhere and at any time, regardless of the device used. Yet, these benefits come at a cost. The widespread deployment of cloud computing services provided by large multinational organisations is indeed a source of growing concern as regards the privacy of users (Moglen, 2010; Svantesson & Clarke, 2010; Gellman, 2012).

Many cloud services are made available to the public through a common web interface (e.g. a single web page), even if they are generally provided by a variety of actors operating on an international scale. Although users are generally not concerned with the origin and location of these services, the location in which user data is being collected, stored or processed is an important element to take into account – especially in countries with stringent privacy and data protection laws (Jaeger & al, 2009). While European regulations on data protection[1] have established a common standard of protection allowing – amongst other things – data to be moved freely within the EU, free flow of data beyond European borders might put the fundamental rights of EU citizens (both within and outside the EU) at risk.

CHALLENGES TO EUROPEAN DATA PROTECTION RULES

Specific attention should be paid to the legislation recently introduced in the United States, where most of the major cloud computing operators are based. In fact, despite the Consumer Privacy Bill of Rights and other constitutional rights protecting US citizens against "unlawful intrusions" on privacy "by both private and governmental actors," foreign citizens – who are not subject to the constitutional rights granted by the Fourth Amendment (Dole, 2003) – are not entitled to the same level of protection in regards to the procedures for searches and seizures. Thus, US laws regulating the surveillance of non-US citizens by means of the US authorities monitoring their online communication constitute a major challenge to the enforcement of European privacy and data protection regulations.

UNITING AND STRENGTHENING AMERICA BY PROVIDING APPROPRIATE TOOLS REQUIRED TO INTERCEPT AND OBSTRUCT TERRORISM (USA PATRIOT ACT)

The USA PATRIOT Act – enacted shortly after the attacks of 11 September 2001 – is particularly problematic in this regard. Conceived as a means to facilitate the prevention of terrorism, it is, however, also likely to jeopardise the privacy and confidentiality of data crossing international boundaries. Indeed, several provisions of the PATRIOT Act are known to clash with various aspects of European data privacy laws insofar as they allow for US authorities to legally request access to foreign personal data stored in or transferred into the US.

Specifically, section 217 of the Act reserves US government agencies the right to monitor online communications as long as previous authorisation has been granted by the owner of a *protected computer* – a term which includes systems used in "interstate or foreign commerce or communication." This essentially means that, provided that the service provider agrees, US authorities could theoretically request access to any information stored in US-based cloud computing platforms (such as those of Google, Apple, Amazon or Facebook) for the purpose of law enforcement. The issue was publicly acknowledged by Gordon Frazer, Microsoft U.K.'s managing director, who publicly admitted that "Microsoft cannot guarantee that EU-stored data, held in EU-based data centers, will not leave the European Economic Area under any circumstances," and "neither can any other company" whose headquarters are subject to US laws.[2] Google confirmed this statement, by subsequently admitting that the company received numerous requests to hand over data of EU-citizens to US intelligence agencies – and was compelled to comply under US law.[3]

In response to that, a series of legislative or institutional measures were undertaken in different parts of the world (such as Canada[4], Germany[5], France[6], Spain[7] etc.) to reduce the likelihood of personal data being illegitimately exported to third countries. At the European level, the Data Protection Directive[8] (article 25) established strict rules regulating the transfer of personal data to countries outside of the European Economic Area (EEA), unless the European Commission specifically acknowledged that those countries are able to provide an adequate standard of protection.[9] While the US does not belong to this category, cross-border cooperation between Europe and the US has been promoted by non-legislative measures and self-regulation. Most relevant in this regard are the Safe Harbour principles[10] aimed at facilitating the transfer of personal data from and to US service providers (including cloud operators) which agree to comply with an adequate standard of data protection. Although based on voluntary codes of conduct, failure to comply with the agreed principles can result in sanctions by the US Federal Trade Commission. Violations can be punished with a fine of up to $12,000 per day and persistent failure to comply could eventually lead to the institution or organisation becoming ineligible to use the safe harbour again.[11]

Yet, since most cloud operators are companies governed by US law, they cannot guarantee that the data they host will not be handed over to US authorities as a result of governmental requests. Many European institutions (and citizens) might thus decide to rely exclusively on cloud services provided by online operators that might preclude any attempt by foreign governments to access their personal data by ensuring that such data will only be stored and processed in European data centres. Following in the footsteps of Amazon and Microsoft, which let users select EU-based data centres in which to store their data, Google recently updated its platform, allowing companies to keep their data within European borders (although it does not yet allow them to select the exact location on a national basis).

THE US FOREIGN INTELLIGENCE AND SURVEILLANCE ACT

The USA PATRIOT Act is only one part of the problem. Most of the safeguard measures described so far are pointless when faced with a much more intrusive (yet much less debated) piece of US legislation: the Foreign Intelligence and Surveillance Act (FISA), which establishes special procedures for conducting physical searches and electronic surveillance of individuals allegedly involved in international espionage or terrorism against the United States of America. Enacted in 1978, the FISA was subsequently amended in 2008 with the Foreign Intelligence Surveillance Amendments Act (FISAA), which relaxed some of the requirements prescribed by the FISA, thereby facilitating the surveillance of foreign electronic communications (Title VII). Scheduled to expire on 31 December 2012, these provisions have recently been extended for another 5 years, to last until 31 December 2017.

By defining an "electronic communication service" as also including "remote computing services", the provisions of the FISAA can now be relied upon to retrieve and inspect data or electronic communications exchanged in the realm of cloud computing. Particularly relevant for the purpose of this analysis is section 1881a, which introduces the possibility for the US government to monitor foreign communication and access data of foreign citizens located outside of the US, without the need for a warrant (a requirement that, by virtue of the Fourth amendment, would only apply to US citizens). As such, the FISAA raises important challenges to EU data sovereignty and could seriously affect the privacy of European citizens. Indeed, not only does it enable US government agencies to intercept phone calls and other in-transit communications, it also allows them to request access to foreign citizens' data located in any data centre within the range of US jurisdiction, without prior notice or consultation.

As Thilo Weichert, data protection officer of the German state of Schleswig-Holstein puts it today, "the long arm of US law stretches as far as Europe": the FISAA could effectively force US companies to disclose EU citizens' data (including personal data) without properly informing them of the matter.

While FISAA did not – until recently – receive extensive media coverage, it recently generated considerable controversy and eventually attracted the attention of European authorities. The implications of US legislation on the fundamental rights of EU citizens have recently been analysed in a EU report entitled *Fighting cyber crime and protecting privacy in the cloud*[12] commissioned by the European Parliament's Committee on Civil liberties, justice and home affairs (LIBE) to analyse the impact of cloud computing on EU strategies and policies with a focus on data protection. The report examines the challenges raised by cloud computing on the right to privacy and data protection, the issues of jurisdiction, responsibility and the regulation of data transfers between countries. It emphasises that "where cloud computing is possibly most disruptive is where it breaks away from the forty-year-old legal model for international data transfers, jeopardising the rights of the EU citizens." Hence, "from a legal perspective, the challenge of jurisdiction is central."

The report also draws attention to the potential loss of EU sovereignty deriving from the fact that data stored in any data centre operated by US companies could be subject to mass-surveillance by the US government: "lack of legal certainty surrounding the [...] legal frameworks of cloud-based investigations, as well as inadequate tools to safeguard privacy and data protection increase the potential for misuses and abuses by law enforcement actors and agencies." In this regard, Caspar Bowden (co-author of the report and former policy adviser to Microsoft) strongly criticised the FISAA for giving carte blanche to US government agencies which – in the name of security and the fight against terrorism – are entitled to track down any type of activities, including ordinary lawful democratic political activities that could potentially further foreign policy interests of the US.

The report concludes that appropriate measures should be taken to ensure that EU citizens are properly informed of the fact that personal data exported into the cloud will be more easily accessible by the US government, and suggests that the violation of users' fundamental right to privacy by any online cloud operator should be considered a cyber-crime punishable under the law.

The findings of this report have been examined during a debate on cyber-security held at the European Parliament on 20 February 2013, with a view to identify which measures should be taken to protect privacy in the cloud, in light of the recent extension of the FISAA. While recognising the dangers of the US government spying on EU citizens'

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INTERNET POLICY REVIEW

As a part of the research area Internet Policy and Governance, the Internet Policy Review is a news and analysis service focusing on Internet regulation in Europe. The Internet Policy Review tracks public regulatory changes as well as private policy developments which are expected to have long lasting impacts on European societies. Its expertise resides in its clear and independent analysis of inter-European digital policy changes.

data, the parliamentary committee regarded the proposed measures as being too drastic, declaring that "the basic framework of the cloud computing strategy is set and won't be changing." In particular, article 13 of the draft Cybersecurity Directive provides for the EU to cooperate with third parties for the sake of cyber-security – and such cooperation could, in theory, also include data sharing.

THE NEED FOR AN INTERNATIONAL DATA PROTECTION FRAMEWORK

While the revised European Data Protection Regulation may introduce new measures aimed at reducing the risks of EU citizens' data being handed over to the US government, Sophia Veld (vice-chair of the LIBE committee and member of the Dutch social liberal party Democraten 66) expressed her concern that European authorities might not be properly addressing these issues for fear of standing up against US authorities. Besides, the situation is further complicated by the fact that European intelligence services could actually benefit from the surveillance activities of the US government in order to obtain information that they could not request under European law.[13]

At present, European citizens should therefore store their data exclusively on European cloud computing platforms that are operated by EU-based service providers (e.g. CloudSigma, T-Systems, Gandi, or OVH, to name just a few), in order to preserve their privacy online. Such a strategy could, however, significantly slow down cloud adoption in the EU. Besides, while it constitutes a viable option for citizens living within the EU, a similar strategy cannot be implemented by non-EU residents, who are ultimately subject to the laws of the country they live in. Even the recent proposals for new data protection regulations in Europe do not indeed address the issue of potential conflicts posed by the laws of third countries.

In a global and increasingly connected online world, preserving the privacy of EU citizens might therefore require the establishment of a more comprehensive framework of international rules when it comes to privacy and data protection, but also, more generally, an improved system of Internet governance, with more sophisticated models of laws and/or standards which are properly adapted and constantly updated to the latest advancements in cloud computing. ◆

FOOTNOTES

1 See, in particular, Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data (Data Protection Directive), Directive 2002/58 on Privacy and Electronic Communications (E-Privacy Directive), as well as the General Data Protection Regulation that will eventually supersede the Data Protection Directive.

2 Speech given during the launch of Microsoft Office 365, in New York City on June 28th, 2011.

3 Statement from Google given to German media group WirtschaftsWoche on August 6th, 2011

4 In Canada, several provinces reacted to the US PATRIOT Act by enacting and/or amending their own data protection laws so as preclude governments or organisations from transferring personal information across borders insofar as there is any risk of inappropriate disclosure for security or for commercial purposes.

5 German's Federal Data Protection Act (Bundesdatenschutzgesetz) requires all parties involved in transnational data transfers to fulfill specific requirements which are amongst the most stringent in the EU. Additional State-level restrictions have also been introduced to preserve the privacy of citizens, see e.g. the Independent Centre for Privacy Protection in Germany, requesting all institutions in the state of Schleswig-Holstein to remove Facebook social media plugins from their websites, insofar as they automatically transfers users personal data into the US, without obtaining prior informed consent.

6 In France, data transfers outside of the EEA are subject to specific requirements of consent and/or subject to prior authorisation by the Commission nationales de l'informatiqueet des libertés (CNIL).

7 In Spain, transfer of data offshore is only allowed into countries ensuring an adequate level of protec-

tion, or after obtaining the authorisation from the Director of the Spanish Data Protection Authority.

8 European Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data

9 The Commission has so far recognised only Andorra, Argentina, Australia, Canada, Switzerland, Faeroe Islands, Guernsey, State of Israel, Isle of Man, and Jersey as providing adequate protection.

10 European Commission (2000), Commission Decision of 26 July 2000 pursuant to Directive 95/46/EC of the European Parliament and of the Council on the adequacy of the protection provided by the safe harbour privacy principles and related frequently asked questions issued by the US Department of Commerce, 2000/520/E, OJ L 215, 25.8.2000.

11 Such was the case of Google Inc., accused by the Federal Trade Commission of falsely certifying compliance with the US-EU Safe Harbor program. Instead of charging the company, the FTC agreed to a 20 years-long settlement agreement that requires Google to undergo periodic privacy audits and to refrain from making any such misrepresentations for a period of 20 years.

12 European Parliament's Committee on Civil Liberties, Justice and Home Affairs (LIBE), Fighting cyber crime and protecting privacy in the cloud, October 2012.

13 As Jan Phillip Albrecht, member of European Parliament working on EU data protection regulations, points out: "European intelligence services and the police are of course happy to be provided data on European citizens by the US. They could not obtain this data under European law".

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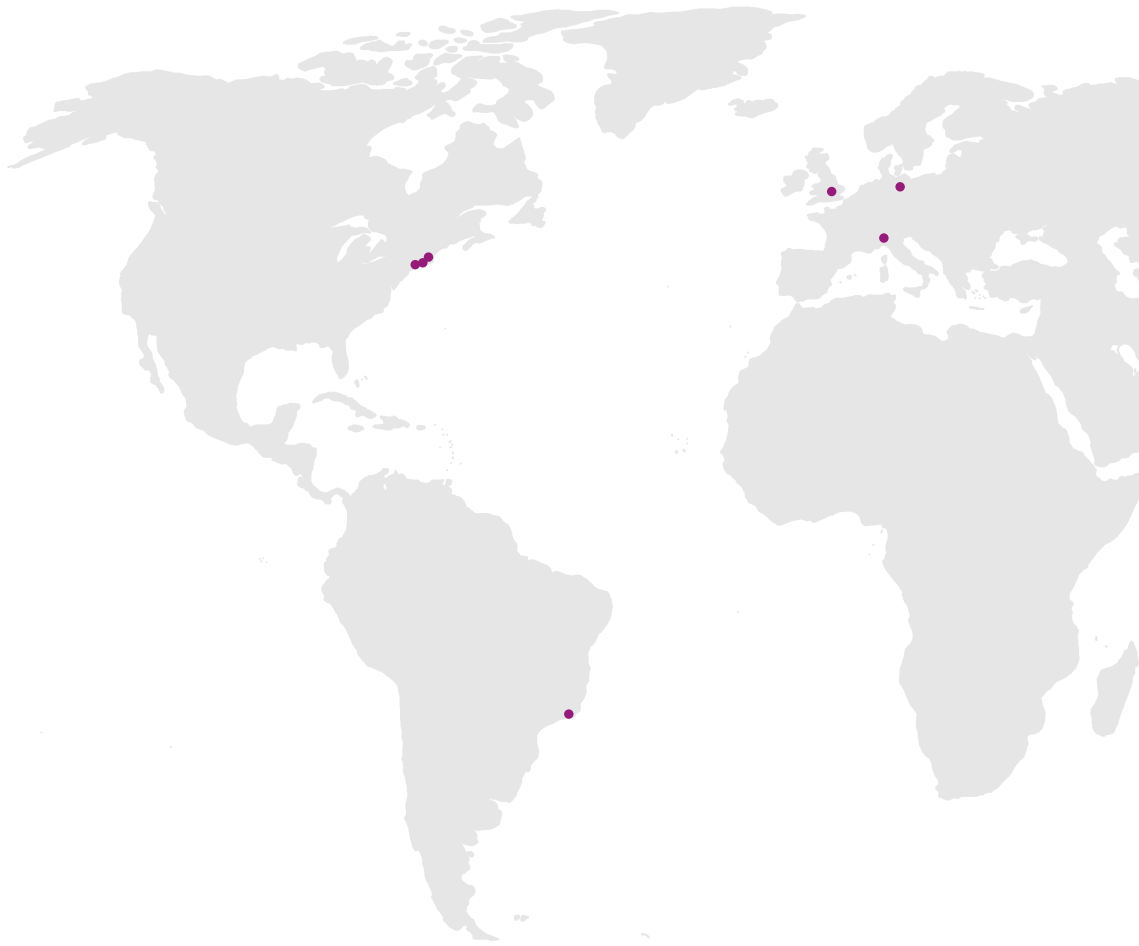
GLOBAL NETWORK OF INTERDISCIPLINARY INTERNET & SOCIETY RESEARCH CENTERS

The Global Network of Interdisciplinary Internet & Society Research Centers is a collaborative initiative among academic institutions with focus on interdisciplinary research regarding the broad range of issues around Internet and society.

The Network aims to increase interoperability between participating centers in order to facilitate knowledge exchange, realise synergies, and collectively confront transnational issues on a global level. A number of internationally recognised research institutions are currently exploring a wide range of important issues concerning the Internet and related technologies. Representing diverse disciplines, methodologies, and viewpoints, these institutions seek to analyse and understand the interrelationship between these technologies and society. In the process, they grapple with a variety of topics of both domestic and global importance, including policy, regulation and governance, human behavior and social impact, new markets and business models, intellectual property, privacy, and security, and many other issues. However, while many of these inquiries call for international and interdisciplinary exploration, at present, research and engagement activities are loosely coordinated at best. The Network seeks to facilitate such coordination by initiating and pursuing joint research activities and events.

INAUGURAL STEERING COMMITTEE MEMBERS

Alexander von Humboldt Institute for Internet & Society, Berlin, Germany
Berkman Center for Internet & Society, Cambridge, USA
Centre for Internet and Society Bangalore, India
KEIO University SFC, Tokyo, Japan
MIT Media Lab, Cambridge, USA
MIT Center for Civic Media, Cambridge, USA
NEXA Center for Internet & Society at Politecnico di Torino, Italy
Oxford Internet Institute, UK
Center for Technology & Society at the Fundação Getulio Vargas Law School, Rio, Brazil

"I have learned in leaps and bounds from the Network's events and learning calls. Teaching and research collaborations with colleagues in other countries, and the knowledge that others elsewhere are attempting work that resembles ours is a tremendous support. The Network of Centres has enhanced our work at the Centre for Communication Governance at National Law University, Delhi. It has given us the opportunity to work with wonderful people to build a more nuanced picture of Internet policy around the world."

__ Chinmayi Arun, Assistant Professor, Centre for Communication Governance, National Law University, Delhi
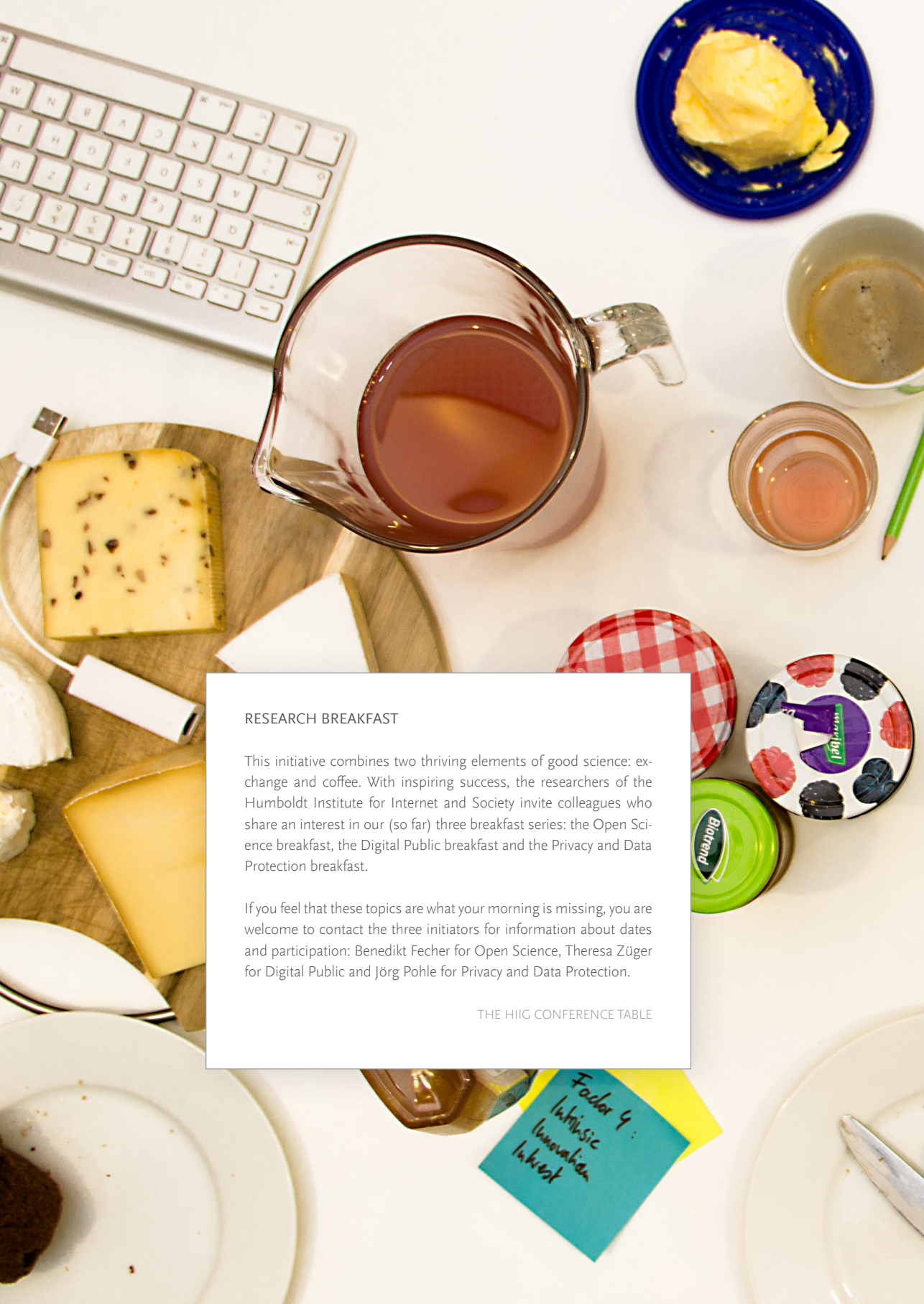
INTERVIEW: CHINMAYI ARUN

Which research opportunities, if any, have you seen emerging from the Network of Centers (NoC) that you did not see before?

The joint research project on online intermediaries is enriching our existing intermediary liability research in more ways than I had imagined were possible.

For you, what has been a particularly memorable NoC-moment in the first year of the NoC's existence?

The meeting in one of Microsoft's conference rooms in Istanbul after the huge, excellent conference hosted by Bilgi University. The NoC events hold many wonderful, often beautiful, memories for me. However that particular evening stands out because who would have imagined that a single small and very ordinary-looking meeting of like-minded people from around the world would have triggered such big things like the global research project on online intermediaries, and synchronised teaching and internationalisation of Harvard's CopyrightX truly global.

RESEARCH BREAKFAST

This initiative combines two thriving elements of good science: exchange and coffee. With inspiring success, the researchers of the Humboldt Institute for Internet and Society invite colleagues who share an interest in our (so far) three breakfast series: the Open Science breakfast, the Digital Public breakfast and the Privacy and Data Protection breakfast.

If you feel that these topics are what your morning is missing, you are welcome to contact the three initiators for information about dates and participation: Benedikt Fecher for Open Science, Theresa Züger for Digital Public and Jörg Pohle for Privacy and Data Protection.

THE HIIG CONFERENCE TABLE

MAXIMILIAN VON GRAFENSTEIN

Can or should TV and other formats
be copyright protected?

COPYRIGHT AS A BALANCING INSTRUMENT ON MARKETS FOR CULTURAL GOODS

With the emergence of television formats, copyright protection of formats was – and still is – disputed for several reasons. Formats such as scripted reality or game shows consist of games and methods which only reproduce facts. As abstract concepts, they resemble ideas rather than expressions – and their expression might lack originality. Therefore, formats should belong to the public domain and not be protected by exclusive property rights. The question about copyright protection of formats is answered differently amongst EU Member States. For example, in the case of *Survive* vs. *Big Brother*, the Dutch Supreme Court decided that the Survive format was copyright protected but that it was not an adaption of the Big Brother format – whereas in the case *Kinderquatsch mit Michael*, the German Federal Court of Justice decided that TV formats are per se not copyright protected.

IS COPYRIGHT NECESSARY FOR CULTURAL GOODS' MARKETS ?

The diverging levels of copyright protection lead not only to legal uncertainty on the Single Market, but simultaneously raise the question about the necessity of copyright protection as a whole. Given that there is a broad definition of linear and non-linear formats, including advertising concepts as well as online platforms, games and upcoming cross- and transmedia formats, the respective markets illustrate that copyright protection is not in all cases necessary for their growth. There are many court decisions in which the respective cultural products were not considered to be copyright protected, without this having any evident negative effects for the respective markets. Indeed, to increase legal certainty on the Single Market it would be useful to harmonise the definition of the copyright protected work either by affirming or denying formats' copyright. Thereby, the question whether formats should be protected or not highly depends on the purposes of the copyright.

BALANCE OF INTERESTS BY COPYRIGHT LAW

Pursuant to individualistic copyright theories in continental Europe, copyright law pro-tects the author of the work as an artist. While this one-dimensional purpose correspond-ed to the situation in the 18th century, in the so called digital age, copyright concerns not only single artists but whole cultural industries and, increasingly, users participating in the so called participatory or remix culture. This cultural development changes the per-ception of copyright not as a protection instrument for artists but rather as an instrument to balance the interests of all participants involved. In contrast to individualistic theories, Anglo-Saxon utilitarian copyright theories explain the need to balance these interests by referring not only to the artist but to society as a whole. Given their focus on the effects that copyright law has on society as a whole, utilitarian theories allow feedback to their corresponding theoretical assumptions. Thereby, the definition of the copyright protected work serves as a first entry point for the balance of interests that might be re-balanced in a further step. A broad definition of the protected work may require lowering the bar of copyright by such means as a fair use clause or exceptions. What importance do partici-pants in format markets place on copyrights for their innovation practice? Which criteria do they think are relevant for the decision on the protection of (their) formats?

COPYRIGHT PROTECTED WORK – MARKET PARTICIPANTS AND THE EUROPEAN COURT OF JUSTICE

In relation to the HIIG research project Circulation of Cultural Goods in the research area Internet Policy and Governance and in the framework of the author's master thesis at the Eulisp Institute in Hannover, participants of format markets, such as for television and advertising but also the Open Source movement, were surveyed with respect to the necessity of copyright protection for formats and for society at large. The results showed a trend towards a very broad definition of copyright protected work but a narrow adap-tation right in favour of subsequent re-creators. So far, the results back the definition of copyright protected work that the ECJ developed in five recent cases which were based on so called 'recitals of the respective copyright directives'. Corresponding to utilitarian theories, these recitals also consider copyright as essential to foster creativity and innova-tion to benefit society at large. However, two aspects cast doubts as to whether European copyright as well as its interpretation by the ECJ can really help to find a fair balance

THIS IS AN ARTICLE FROM
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INTERNET AND MEDIA REGULATION

The Internet has become a universal technical platform that shapes public communication. Research in the area of Internet and Media Regulation derives from questions revolving around the normative structure of this new ecology. Both new intermediaries, as well as established information brokers play an important role in that structure. The research area is particularly interested in developing configurations, investigating the impact these formations have on the production and selection of content and, finally, what this means for normative structures and governance concepts. Research is furthermore undertaken on user-behaviour on social media platforms. The research area Internet and Media Regulation draws on law and policy studies, conducting transdisciplinary projects on Social Media Governance, Notions of Public Spheres in Information Law, Legal Aspects of Crowd-Sourcing and When Data becomes News.

between all markets' participants. Firstly, the recitals presume that only a high level of protection is appropriate to foster creativity in general. This tendency makes it difficult to re-balance the broad definition of the copyright protected work in later steps such as by a limited right to adapt or by an extensive fair-use clause. Secondly, the Court does not use the purposes of copyright provided for by the recitals to balance the interest of the participants involved. Instead, the Court focuses on the interests of the author. Hence, the recitals serve rather to justify the judgments per se – at least increasing legal certainty.

In view of the broad definition of the copyright protected work, the fair balance of interests depends, subsequently, on the adaptation right. Since the European Court of Justice has not yet explicitly decided on the adaptation right, it remains unknown whether there will be a real balance of interests by means of copyright on the Single Market. ◆

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CHRISTIAN PENTZOLD & CHRISTIAN KATZENBACH

Reforming formats. A workshop report

Formats are part and parcel of the global entertainment industry. In their local guises, programs like the exceptionally successful formats *Who wants to be a Millionaire?*, *Idols* and *Big Brother* amuse a global audience and link national media markets with international networks of media content production and distribution. Therefore, they must be at the same time both iconic – so as to be easily recognised by various audiences – and adaptable for a range of domestic cultures, languages, and habits. As such, these formats can be seen as a conspicuous test case for the circulation of cultural goods in digitally networked environments.

The workshop *Reforming Formats* held at the Alexander von Humboldt Institute for Internet and Society in collaboration with CREATe, the Research Councils UK Centre for Copyright and New Business Models in the New Economy, University of Glasgow, brought together international scholars and practitioners to review the current and future state of format production and protection. The workshop focused on three aspects: First, it covered the changing production of program formats in organisational networks, trade markets, industries, and business models for broadcasting television and second screens like multimedia platforms. Secondly, it discussed the changing protection frameworks and policies as well as the agents involved in reassembling the protection of formats. Thirdly, it asked how these two developments could be studied by comparison of different national and transnational media markets.

Overall, the workshop started from the assumption that the production and distribution of formats is a constantly changing business. Looking at the relations, frameworks and routines of making, trading, screening and watching formatted programs, the workshop's talks and discussions thus focused on a range of interlinking dynamics: Concerning the producers, there are international media mergers as well as increasingly diversifying parties, both involved in bringing formats into being. Then again, thinking about the legal status of the elements that make up a format, we also witness conflicting tendencies. On the one hand, there are strategies to reinforce the protection of formats – and ways of overcoming the growing legal walls on the other. Moreover, the advent of social media affords new types of formats but also helps to diffuse and reorganise audiences.

KEYNOTE: FOOD FOR THOUGHT FROM A MARKET PERSPECTIVE

In her Keynote, Susanne Stürmer, President of the Hochschule für Film und Fernsehen Konrad Wolf, Germany, introduced current market data. She pointed out that, despite the market being economically important and vibrant, there is only little consistent data available and shared among the different parties involved.

Judging from the numbers available, the stock of travelling formats is still growing. Germany, she pointed out, remains the territory with the highest number of program formats imported in 2013 while the UK is still the biggest exporter of formats. A range of aspects seem to explain this stable relation, namely the role English plays as a global language, the strong relation to the US-American media market and a distinct institutional framework and system of ownership rights favouring the original producers, thus fostering Britain's first mover status.

With regard to the digitisation and convergence of media technologies, content and organisations, Susanne Stürmer envisioned a range of possible scenarios. Hence, there could be a growing danger of format violation, a revival of scripted shows or a higher demand for niche programs while the super-formats that dominated the first decade of the 21st century like *Millionaire*, *Idols*, or *Survivor* might loose some of their attraction (to some portions of the audience, at least).

Interestingly enough, format production and distribution are prospering – despite the controversial definition of what a format actually is, the incoherent legal frameworks (nationally and internationally) and other possible reasons to fail, for example the lack of complete information and transparency. Therefore, setting a recurring theme of the workshop, Susanne Stürmer stressed that producing formats is, at its core, a creative practice. As such, it involves deliberate copying, licensed adapting and plenty of negotiations, in and out of court.

THEME 1: THE CHANGING PRODUCTION OF FORMATS

The workshop assumed that the production of formats and the types of audiovisual formats interact with their changing technological, organisational and institutional environments. Hence, it asks: what is the state-of-art in producing formats? And what is actually produced in these processes? What are activities, settings and relations for producing formats? Who is involved and what are their responsibilities? How is the production of formats organised? Who manages the relations of all the relevant parties?

Pinning down success factors of format production, the speakers in the first themed session developed different angles to view the complex networks that are enrolled to bring about formats. In this respect, Andrea Esser (Roehampton University, UK) stressed the importance of branding in the affective economics of marketing reality format shows like *The Only Way is Essex*. Apart from being television content, these programs are turned into brands that not only compete for a market share but also seek to engage users in
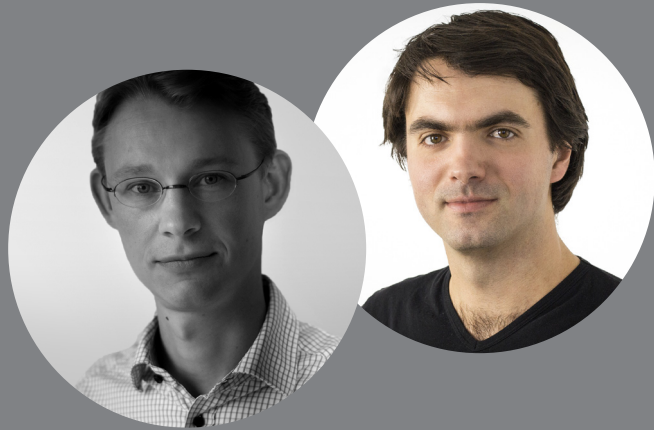
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CIRCULATION OF CULTURAL GOODS

Due to the predominating normative and legal approach in the current copyright debate, little research has been done on the actual effects of copyright law on processes of cultural production and innovation. The research project Circulation of Cultural Goods seeks to supplement the still nascent research with empirically grounded case studies. The theoretical background reflects recent governance approaches, emphasising the involvement of multiple actors and their use of both public and private means of regulation in processes of rule-making. An explorative case study focuses on the creation and international trading of online TV formats. TV formats serve as a case in point, as they are not uniformly protected under copyright law due to their complex composition of often legally ambiguous components.

emotional bonds. That is, creating a unique though adaptable format embraces many stages and adds a range of ancillary products and experiences. As Claudio Coletta (University of Trento, Italy) explained in his talk, the circles of format original and imitation tend to get even more twists and turns because of these means of renovation.

Looking at the value chain of format distribution, acquisition and production, Klaus-Dieter Altmeppen (Catholic University Eichstätt-Ingolstadt, Germany) explained the importance of routines and flexible relations in developing, circulating and reworking formats between different networks of originators, distributors, producers and broadcasters. Following up on that, Jean Chalaby (City University London, UK) pointed to the historic dimension of format production as an international business. He argued that the driving forces behind this globalised industry are – apart from the rise of the super-formats – the forming of a multi-channel programming market, the growth of an independent production sector and the globalisation of information flows within the television industry. Extending these circles, Philip Werner (UFA Labs) explained the chances and hurdles for UFA coming to terms with YouTube. Following the idea of YouTube being celebrity and not content driven, he listed some of the tasks the UFA, traditionally being a producer of formats for television screens, has to address when working with online platforms for audiovisual content and second screens. Thus, it becomes essential to involve so-called YouTubers and their successful channels without running the risk of losing the channels' alleged authenticity and directness. Moreover, interacting with the platform and its audience requires negotiations with YouTube's management and direct communication with the individual users.

THEME 2: THE CHANGING PROTECTION OF FORMATS

Although the production and trade of formats seem to be bedeviled by all sorts of problems they nevertheless work – and work profitably, at least most of the time. Thus the workshop asks: what is the state-of-the-art in protecting formats? What are viable models to organise and secure the circulation of formats? Who is protecting (and to which ends)? What (legal) instruments are in use? What other modes of ordering are made to function?

Protecting formats while relaying them has, according to Albert Moran (Griffith University, Australia), come to take the form of franchising. As such, franchising has arguably become the prime way to extend business opportunities of that kind. Still, as other speakers pointed out, translating and localising formats has to master the complexities of the formats. Hence, Moran used the notion of the intertext' to refer to the number of adjacent industries successful formats engender, such as games, fashion, music, or toys.

From the perspective of legal counselling, Christoph Fey (Unverzagt von Have, Germany) extended, on the one hand, the scope of challenges that format trade is facing. Thus, he referred, among other things, to the cultural differences hindering the remake of formats, the strong competition for convenient slots in the tight prime time schedules and the organisational needs that grow from perpetuating the success of the super formats. On the other hand, he identified several circumstances that nevertheless render it possible to bring about stable and successful business exchanges. Although the legal protection of formats is rather far from straightforward, the close interactions, shared norms and dependencies help to sustain reliable relations. Thus, while there are a number of conflicts about copycat productions, these conflicts are usually settled out of court. However, this does not mean that the law is insignificant. Rather, Fey argued, these disputes are arranged 'in the shadow of the law' leaving the potential to formal legal actions with the risk of financial and reputational loss.

In the same vein, Martin Kretschmer and Sukhpreet Singh (CREATe) showed that lawsuits are by now declining, as disputes are settled elsewhere. In their overview, they thus mapped the range of empirical forms of strategies that work in association with intellectual property (IP) law or that fulfil functions associated with IP through other kinds of ordering mechanisms. Hence, they detailed the formalising and transacting of knowing how, the managing of a brand and the setting up of distribution dynamics and industry conventions as effective ways to protect formats.

THEME 3: COMPARING FORMAT PRODUCTION AND PROTECTION

As the fabrication and circulation of formats is, arguably, a key driver of the internationalisation of media business, the workshop centres on questions of how to compare different markets and legal systems. So it asks: how can strategies and environments to produce and protect formats be reproduced? What elements in different local contexts can usefully be compared? How can we make sense of the differences and similarities between different constellations?

Considering the role copyright legislation plays for different forms of innovative work in the arts and sciences, Jessica Silbey (Suffolk Law School, USA) developed the idea of what she called "leaky IP". In her interviews with authors, musicians or pharmacists she seized a misalignment between proper copyright and understandings 'in the field'. Therefore, the actors reflected about their creative practices where they both under enforced and over expanded the scope of US-American intellectual property – for functional reasons, so as to make profit, build relationships or enhance their freedom.

Then, Oliver Castendyk (Potsdam University and Producer Alliance, Germany) related the existence of rights to protect formats to a specific situation of production, namely, the form of commissioned productions, which has now lost significance in the Anglo-American context but still prevails in the German market. There, broadcasters commission productions from producers and acquire the rights to air the program and re-sell it to other markets.

The intricacies of such international chains of circulation and remaking were disentangled by Lothar Mikos (Hochschule für Film und Fernsehen Konrad Wolf, Germany). Using the example of *Ugly Betty* he traced the associations between licensed adaptations, illicit imitations and remakes of such remakes. Revisiting this particular case, he noted that the original show initially aired in Colombia was not planned as a format and that only in a second stage was the fictional program formatted to work in other cultures, too. How such localisation happens in detail, was finally showcased by Sukhpreet Singh (CREATe) who considered the junior version of the Indian adaptation of *Idol* as a culturally specific recreation.

STARTING POINT FOR FUTURE RESEARCH

These multifaceted perspectives brought about inspiring conversations on the production and trade of formats that cross disciplinary boundaries. Over the course of the two days, the workshop thus sketched a thick description of the interlinking economical, technical, legal and social dynamics in this field. Given its economic and cultural prominence combined with its conspicuously heterogeneous modes of coordination, the format business is increasingly seen as an instructive site for studying the circulation of cultural goods in digitally networked environments.

Over the course of the workshop, a couple of possible collaborations were already discussed among the interdisciplinary group of participants. The hosts of the workshop, HIIG and CREATe, agreed to jointly develop an international research framework addressing the interlinking dynamics and modes of coordination in the creative industry. ◆

EVERYTHING IS A REMIX? CULTURE BETWEEN LAW, DISCOURSE AND PRACTICE

In the debate about intellectual property, jurisprudence and social sciences present a whole range of different arguments. While the reflection on the subject is mainly influenced by legal terms, other disciplines identify a number of interesting arguments like imitation as cultural practice or property rights as an economical dilemma. To bring together a discourse that often seems to run parallel without many points of contact, Prof. Dr. Katharina de la Durantaye (Humboldt-Universität zu Berlin), Dr. Jeanette Hofmann (WZB, HIIG), and Christian Katzenbach (HIIG) initiated the seminar *Everything is a remix? Culture between law, discourse and practice*. With this interdisciplinary seminar, held in summer 2013, they aimed to give an insight into how the creation of culture is not only subject to legal rules but is also deeply influenced by social norms that may act contrary to the law.

Students of mainly Law and Social Science but also Cultural Studies, Ethnology and Mathematics came together at the Alexander von Humboldt Institute for Internet and Society. The first meetings were determined by the attempt to find a common vocabulary and overcome all the gloomy and bloomy planets that may exist between the disciplines. We, the students, found out what it means to work interdisciplinary: talking, explaining, reflecting, clarifying, talking. After getting an idea of what the other disciplines might define as author, creation or plagiarism and after debating and speculating about respective methodical approaches, it was about time to form interdisciplinary groups. Various case studies on (among others) Christian Marclay's award winning 24-hour video montage *The Clock*, which is compiled from thousands of time-related scenes of copyrighted films, or Tino Sehgal's highly priced immaterial, performance-like pieces of art, gave us an understanding on the practices of creating culture and the (legal) rules and discourses shaping these practices. In this manner, contact points and cross links between we students and our disciplines arose, entangling us in profitable exchange and mutual awareness. From a student's perspective, the seminar – which was organised by the Alexander von Humboldt Institute for Internet and Society, the Department of Social Sciences and the Law Faculty of the Humboldt-Universität zu Berlin – enabled what is often talked about but rarely happens during daily university routine: interdisciplinary exchange and mediation.

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Maxie Fischer worked as a student assistant at the HIIG in 2013 and participated in the seminar *Everything is a Remix? Culture between law, discourse and practice*.

BENEDIKT FECHER

There is no knowledge society.
A case for critical research on Internet and society

For more than five decades, the term *knowledge society* has been buzzing around in discourses about society, technology and research (for some examples: Lane, 1966; Toffler, 1980; Naisbitt, 1986; Drucker, 1993; UNESCO, 2005). Although it is hard to find a more or less consistent definition of the term within scholarly literature, the overall discourse limns a picture of a society that is increasingly knowledge focused; in which technological progress goes hand in hand with access to knowledge creation. Condensing the essential facts, the knowledge society proclaims an era of universal, equal and inclusive access to knowledge creation.

This is a myth.

In this article, I hold two bold assumptions that I want to share with you. First, the knowledge society is a myth, even in academia. And second, the narrative of a knowledge society constrains research on Internet and society.

Is it time to get rid of a concept that is in fact nothing more than a castle in the air?

A KNOWLEDGE SOCIETY IS A MYTH, EVEN IN ACADEMIA

Even in academia, a field perhaps closest to the empirical equivalent of a knowledge society, knowledge creation is far from being universal, equal or inclusive.

Let's do a quick fact-checking.

The creation of academic knowledge is highly dependent on the tools. The means of production consist of far more than just a computer with Internet access. It requires expensive analysis software, measuring instruments, supercomputers and other barrier-to-entry devices. And even though the Open Access movement notched up major successes in the last few years, the access to scientific knowledge – which I consider a core commodity for knowledge creation in any discipline – is neither equal nor global. Ask any librarian in the world whether all knowledge is freely available to everyone; you would be laughed at. In terms of impact, Open Access journals still lag behind the top non-Open Access journals (Rivers, n.d.). I am not saying that a barrier-free access to knowledge creation is not desirable. In reality, it simply does not exist.

Now, let's assume that not only the access to the means for academic knowledge creation would be barrier-free, but also that the acquisition of knowledge were equal – which is of course not the case (M. Taylor, 2006). Would knowledge be a commons? Would researchers innately desire to

contribute to a public good? I do not think so. There is still the argument that knowledge is power: a system in which the core currency is information will always be a system based on exchange of information. If knowledge is a form of capital, one will always consider the tradeoffs associated with sharing it. While this claim is provocative, I am convinced that there is no universal and purely societal motivation for contributing to a public good. In order to discuss ideas about openness in academia, we have to discuss the adequacy of reward systems.

The entry barriers to knowledge creation are manifold. To suggest that we overcame a post-industrial era and live in the midst of a society that offers equal access to knowledge and knowledge creation simply neglects the social reality we live in. In fact, in none of its crucial characteristics does the concept of the knowledge society meet the empirical reality. It has no substance, neither as a label for the society we live in nor as a social concept that aims to explain how we create knowledge.

THE NARRATIVE OF A KNOWLEDGE SOCIETY CONSTRAINS SCIENTIFIC DISCOVERY

While it is perhaps unfair to criticise the grand ideal of a knowledge society, I believe that a lot of its intellectual premises influence how we do research on Internet and society today. Its ideas of openness, equality and inclusion resonate in our ontological assumptions of interaction on the Net. And I believe this is problematic for scientific discovery in the field of Internet and society. It is problematic because it makes us blind to the real issues of Internet and society research today.

THE CASE OF ONLINE CO-CREATION

Benkler's *Commons-based peer production* (2006) and Surowiecki's *Wisdom of Crowds* (2004) were groundbreaking. They finally allowed for explanations of purposeful interaction between individuals that are dispersed and non-familiar. They described new forms of organisational structures without formal entities and old-fashioned depictions of leadership; forms of organisations that are networked, partially active and amazingly successful. In many cases, networked co-creation surpasses bureaucratic forms of organising.

THIS IS AN ARTICLE FROM **BENEDIKT FECHER**

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OPEN SCIENCE

The Internet undoubtedly changes the way knowledge is created and disseminated. The research project Open Science identifies and structures the numerous approaches to knowledge creation and dissemination in order to make them accessible for other interested researchers. Furthermore it addresses particular issues, for instance: How does the production of knowledge change through open communication and interactive tools? What determines openness in research? How does openness differ among the disciplines and research systems? What online tools are there and how are they used within the field of science? What role does intellectual property play in scientific publishing?

Nevertheless, novel forms of co-creation are not accompanied by the absence of leadership, the absence of power relations and, therefore, equal participation. They are absolutely more egalitarian and inclusive than traditional concepts of knowledge creation, but they also fall victim to misuse. And I fear that our conceptualisations and empirical foci still turn a blind eye on these issues.

LET'S TAKE THE FLAGSHIP EXAMPLE OF WIKIPEDIA.

Compared to traditional organisations, the leadership at Wikipedia is less formal and more discursive, less universal and more participatory. But, nevertheless, leadership exists. It takes only a quick look at the WikipediaTalk Pages or the WikiProjects sub-sites to realise that editing at Wikipedia is competitive. Simple statements undergo critical examination and discussion in designated expert groups. It often requires niche knowledge and community standing to actually implement a passage. Apart from the fact that even a Wiki requires basic computer skills, a core threshold is the cultural capital, the specialised knowledge in a particular field and the know-how to participate. Partaking in co-creation is not equal, not inclusive and not universal and I doubt that Wikipedia would be such a blossoming example of co-creation if it really were. Still we lack concepts for novel forms of leadership, decision-making and power relations in informal entities. We leave out power.

There are also concerns about the motivation underlying participation in co-creation on the Net. While I am sure that editing, cleaning, programming and managing at Wikipedia can be partially attributed to an individual's desire to contribute to a common good, this is not always the case. The reasons for partaking can also be attributed to Wikipedia's many forms of social recognition. I doubt that in any community in which contributions are attributable to a person, participation is solely based on the common good. Still we subsume individual motivations and characteristics under the crude idea of euphoric do-gooder. We leave out the person.

A system's level of openness can also lead to its misuse. Just a few days ago, Wikimedia had to shut down a few hundred users' accounts because they "may have been paid to write articles on Wikipedia promoting organisations or products, and have been violating numerous site policies and guidelines, including prohibitions against sockpuppetry and

undisclosed conflicts of interest." (Wikimedia Foundation Executive Director Sue Gard-ner's response to paid advocacy editing and sockpuppetry, 2013) Novel and open forms of purposeful interaction also hold novel forms of misuse and bureaucracy. We leave out misuse.

My central point here is the following: if our epistemological and ontological conjectures for interaction on the Net do not account for new forms of power relations, self-interested behaviour, we risk running out of concepts that allow us to explain novel forms of decision making, hierarchy and misuse.

And this is precisely what critical research on Internet and society needs to do: it needs to confront the technical opportunities with the human and social barriers as they are, and not as we wish them to be. (For example, Benkler dedicates a whole paper on the issue of power within networks.)

THE CASE FOR CRITICAL INTERNET SCIENCE

In this article, while provocative and somewhat disillusioning, I want to propose that our concepts for Internet and society and for knowledge-creation in the 21st century need to withstand critical empirical examination. Let's stop cherry-picking empirical success cases to justify unlimited openness in research. Let's focus on cases that fail, on cases of misuse and loss of control. Let's confront our concepts with the reality. Let's replace the tech-utopian euphoria that guided our investigations on Internet and society by well-in-tended critical reflection.

We need critical reflection on how we can prevent new systemic threats, how we can cre-ate intelligent incentives for individuals to share their knowledge, and how we can lower the barriers to entry for knowledge creation.

We need to steer our endeavours towards a more critical approach to Internet phenome-na. Not because we are pessimistic about technology, but because we need to make sure it is used responsibly.

We are not living in a knowledge society, but we should do our best to get there. ◆

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CHANCES AND RISKS OF SOCIAL PARTICIPATION

Participation is a key issue within Internet research and hence also for the Alexander von Humboldt Institute for Internet and Society. For this reason the institute initiated a thematically focused meeting on Chances and Risks of Social Participation in Berlin on 22 November 2013. The meeting covered topics ranging from encouragement in the context of democracy to the impact of participation on innovation management. The event was hosted in cooperation with the Friedrich Ebert Foundation. International researchers from a broad range of disciplines joined the meeting, including Nishant Shah, director of the Centre for Internet & Society in Bangalore, who gave the opening keynote. His speech was an intellectual stimulus for the whole day and inspired us to ask him for an interview.

What do you mean by 'Walt Disney Participation'?

Nishant Shah: I meant, that there is this very happy, enthusiastic understanding of what participation means. We believe that if only more people participated, the world would be a better place. We indeed need more voices to be heard, but we also need to realise that there is something called the infrastructure of participation. We rarely talked about the people who regulate what is the legitimate way of participation. So when you see a Walt Disney movie you never really see what's behind it. All you are interested in looking at is Snow White and the seven dwarfs, not the kind of labour that goes into it or the politics of representation.

Do we overestimate the potential of the Internet for partici-
pation and democracy?

NS: The way to phrase it would be that there is a historical continuity in technologies of mass production, circulation and distribution and the ways in which structures of governance are shaped. With the Internet there is this tendency to dehistoricise both temporally and geographically the ways in which certain structures of government have been set in place. That the digital is going to produce a new form doesn't need to be celebrated but needs to be explained in terms of where the new power constellations are going to be.

What is dangerous about participation on the Internet?

NS: The digital is as dangerous as everything else that we live in. But we haven't created enough sign posts and references to remind us of the danger that lurks there. A lot of the young people discover the Internet as a sandbox, they think of it as a space for experimentation. We don't really have enough signs to remind them that this is going to actually have a negative repercussion on them. We always think of the Internet as a free, liberated, open, unregulated space, which – as we know – it is not. Look at the simplest of interactions between you and Facebook. You cannot even change the colour of your Facebook homepage and you think it is your page. You think you are in control and that it is facilitating participation and intimate agency. But it is not. This notion of freedom, the notion of power, the notion of agency – we have to start de-constructing it.

Further interviews with Juan Carlos de Martin, Helen Margetts, Alexander Trechsel and Silvio Meira were recorded alongside the meeting on Chances and Risks of Social Participation. The video interviews are available online.

🌐 www.hiig.de/participation

ONLINE IN DIE POLITIK?

CHANCES AND RISKS OF SOCIAL PARTICIPATION

Dorothea Jansen,
Arie Rip,
Peter Weingart (Hg.)

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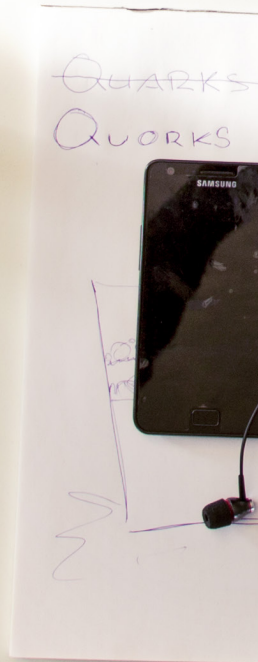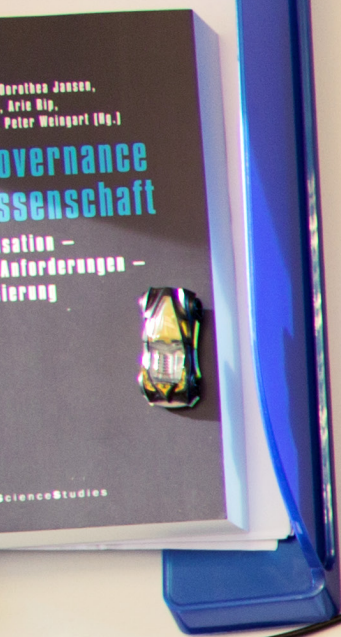
BURGERBETEILIGUNG

The Burgerbeteiligung (burger participation) is a quarterly quest to find Berlin's best burger. Benedikt Fecher and our former colleague Niko Becker started it in 2012, as an informal get-together for the institute's employees. Participation increased constantly and today the Burgerbeteiligung is ranked among the institute's (and perhaps even Berlin's) most exclusive events.

DESK OF BENEDIKT FECHER

STARTUP CLINICS

Digital technologies cause fundamental changes to many aspects of society and provide countless opportunities for entrepreneurs. The research project Innovation and Entrepreneurship contributes to a better understanding of the supporting and hindering factors of Internet-enabled entrepreneurship. The team offers 'Startup Clinics' where the researchers hold discussions with founders about their business model and guide them to a network of consultants and mentors. The Clinics focus on financial, human resource, legal, sales, and technological issues. Building on the data generated by the clinics, the research group gains knowledge of every phase in a company's life by closely following and monitoring the specific challenges founders face and the ways they overcome them.

"In the startup research domain, my focus is on financing structures. Thus, having most direct access to startups through our clinics is a great addition to my tasks of generating and collecting data."

__ Robin P. G. Tech | Finance Clinic

"Finding the right people is a top priority for every new firm. Since my research is on competency-based recruiting in fast growing Internet startups, my academic work can be directly applied to startups that join my clinics."

__ Martin Wrobel | Human Resources & Management Clinic

"How open are laws when it comes to innovation? The Law Clinic helps startups facing legal challenges and supports my research on legal instruments to find an ideal balance between the rule of law and openness towards innovation."

__ Maximilian von Grafenstein | Law Clinic

"An aligned and thoughtfully designed business model is a core competitive advantage for startups, and a means to create and deliver value to customers. My research focuses on business model innovation and startup data to advance the respective field."

__ Martina Dopfer | Business Model Innovation Clinic

JOHAN SÖDERBERG

How Open Hardware drives digital fabrication
tools such as the 3D printer

Advances are rapidly being made in what has been variously labelled personal-, desktop- or digital fabrication. The most often discussed example is low-cost, easy-to-use 3D printers that allow ordinary users to 'print' objects in their homes. 3D printers and other technologies of the same kind are believed to create radical new possibilities for inducing new consumer habits and transforming existing production methods. According to a row of policy institutes, digital fabrication will become a motor for economic growth and social innovation (MAKE, 2011; IDA paper, 2012). Echoing the same promises, the business press has announced the advent of personal manufacturing and a third industrial revolution (Economist, 2011; 2012). Some policy reports even claim that digital fabrication could restore the competitiveness of manufacturing in developed nations and reverse the trend of outsourcing (Lipson & Kurman, 2012). The positive economic outcomes expected from this technology are linked to the hope that digital fabrication tools will open up innovation processes to heterogeneous actors, such as grassroots groups, start-up firms, and users (Chesbrough, 2003; Lipson & Kurman, 2012).

At a closer look, it turns out that grassroots groups are not merely on the forefront in experimenting with uses of low-cost digital fabrication tools. The tools themselves have often been invented by such groups in the first place. For example, the booming market in low-cost 3D printers, the crown jewel among digital fabrication tools, owes its existence to an Open

Source project called Rep-rap. The vision behind the project is suggested by its acronym, self-REPlicating RAPid prototyper. The idea of building a 'printer that prints itself' is tied together with dreams of putting in place an infrastructure by and for grassroots innovators. In doing so, at least some of the developers and users of Rep-rap hope to render obsolete the industrial, centralised and commercial mode of technology development. The visions propelling the Rep-rap project depart a great deal from the ideas that are now being touted in the business press, by policy institutes, and salesmen of 3D printing firms.

In what follows, I argue that the sudden appearance of digital fabrication tools only makes sense when understood against the backdrop of an emerging movement around Open Hardware development. This prompts us to adopt a different theoretical apparatus and terminology than that which has up until now, been mobilised by innovation studies scholars studying isolated, discrete cases of user innovation. The latter approach has some plausibility when the object of study is a clearly delimited group of users. Say, a group of sport fans developing mountain bikes (Luthje, Herstatt, Hippel, 2005), and who have nothing in common with some other group developing kayaks (Hienerth, 2006). The problem starts when such an on-off approach is made into a general model for studying innovation by users. Depending on the starting assumptions and the interpretative framework, the empirical object under examination is bound to come out differently.

I propose to borrow the notion of 'framing processes' from social movement research. What this perspective brings to the table is a sustained attention to the way practitioners make sense of themselves and their standing in the world (Snow, et al., 1986; Snow & Benford, 2000). A merit of this outlook is that it decentralises the product and corresponding consumer markets, now seen as peripheral outcomes of group dynamics and framing processes. The technical practices are evolving in tandem with the hammering out of ethical and political standpoints. In the case of users designing digital fabrication tools, I will argue in what follows, that the framing process is centred around the idea of openness. This 'hammering out', by which the movement comes into its own, typically takes place in confrontations with countervailing forces in society. The expansion of intellectual property to include 3D objects is likely to present the occasion. The first cease and desist letters concerning 3D printed objects have already been sent out to suspected infringers, and lobbyists are already making arguments for extending intellectual property law to this new domain (Rideout, 2012).

OUTLINES OF AN OPEN HARDWARE MOVEMENT

The surge of homebrewed digital fabrication tools today is in continuation with a longer trajectory of Open Hardware development. As with so many other things today, good or bad, this trend can be traced back to the small-is-beautiful philosophy that flourished in the 1960s American counterculture, culminating in the legendary Homebrew Computer Club (Levy, 1984; Flichy, 2007). Two forerunners to the movement around Open Hardware in the late 1990s and early 2000 were the Open Cores project – although it occupied a middle ground between software and hardware development, and the short-lived Simputer project – an initiative in India to produce a computer more suitable for developing countries (Seaman, 2001). Arguably, the first project that vindicated the methods and licensing schemes of free software development, applied those practices to Open Hardware development, and pulled off a state-of-the-art technology without any backing from universities or firms, was the Ronja project. It was started by Karel 'Clock' Kulhavý in 2001 and served the Czech wireless network community with a tool that was in high demand at the time. Ronja was a high-speed, cheap and reliable network device, transmitting data using free space light (Söderberg, 2010). Many of the characteristics, peculiarities and conflicts that marked the Ronja project are recurring in present-day projects developing Open Hardware products.

DEVELOPING A TOOLCHAIN FOR DIGITAL FABRICATION

At the moment, the number of Open Hardware projects is growing explosively. A critical infrastructure for sustaining those projects has been created with the spread of physical spaces for innovation and fabrication, variously labelled hacklabs, makerspaces, fablabs, community innovation centres, or something else again (Maxigas, 2012; Kera, 2012). Another catalyst seems to have been the early breakthrough of the Arduino microcontroller (Paoli, 2011). For example, derivatives of Arduino provided a critical component in the Open Source Rep-rap 3D printer for some time. The 3D printer itself, of course, holds out the promise of becoming a stepping stone in other Open Hardware projects (Ratto & Ree, 2012). And, above and beyond the 3D printer, projects are underway to develop all kinds of machinery tools, including laser cutters, lathes, Computer Numerical Control machines, and robotics. The wider significance hereof becomes clearer when recalling the early days of the free software movement. When Richard Stallman invented the concept of "free software" in 1985, the first thing he did was to create tools for writing software code, the GNU toolchain. Once the tools for writing software had been made available under a free license, many other kinds of free software projects began to flourish. The invention of a toolchain for digital fabrication will probably have a similar importance for the future growth of Open Hardware.

Equally dazzling is the speed by which markets and firms are being established in connection to Open Hardware projects. In this respect too, the Rep-rap 3D printer project takes the lead. The first garage firm based on the technology, Bites-from-Bytes, was created in 2008. In the following year, a small consumer market in 3D printers began to flourish, and many more garage-firms were created. In 2011, the second oldest startup, Makerbot Industries, secured 10 million dollars in venture capital, and Bites-from-Bytes was bought by a multinational manufacturing company, 3D Systems, for an undisclosed sum. The market for industrial and consumer-grade 3D printers is now estimated to grow to $3.1 billion worldwide in 2016 (Wohlers, 2011). This is all the more remarkable, considering that the by-line of the Rep-rap project is: "wealth-without-money" (Bowyer, 2004).

OPEN/USER INNOVATION IN THE FIELD OF OPEN HARDWARE DEVELOPMENT

The central question of this investigation asks what kind of explanatory framework is prompted by the surge of movement around Open Hardware. The discipline of Innovation Studies might seem to be well placed to respond to current developments. Indeed, long before the label Open Hardware was coined, innovation studies scholars following

Eric von Hippel's lead were studying users developing hardware products. Granted that, more often than not, these innovations were more aesthetic than technical in character. The litmus test for deciding whether or not a significant discovery has been made is not the technical complexity of a product, but whether it gives rise to a consumer market. Empirical materials to back up the theoretical claims in innovations studies have been found in many different walks of life. The surge of Open Hardware development, where users are inventing technically intricate products – such as digital fabrication tools – presents itself as yet another example of user innovation. For instance, in their survey of Open Hardware projects, K. Balka and her colleagues have chosen to use the more inclusive label Open Design over Open Hardware. The advantage with the former label is that by being more inclusive, it allows them to connect to earlier studies of user innovation. Open Hardware is thus perceived as a subset of user innovation more broadly (Balka, Raasch, Herstatt, 2009). Subsequently, grassroots groups developing digital fabrication tools can be studied with the same methods and theoretical apparatus as has previously been mobilised in studies of things like sports equipment (Luthje, Herstatt, von Hippel, 2005) and juvenile products (Shah and Tripsas, 2007). This approach has a major drawback, however, in that it becomes hard to register that which is specific to one or another field. A particularly stunning example hereof is a case study of the peer-to-peer platform Freenet, made by three leading innovation studies scholars. The individual motives of the developers behind Freenet are carefully registered and slotted in according to the pre-given model, without ever mentioning the mission of the undertaking as a whole, which is to protect free speech (von Krogh, Spaeth, Lakhani, 2003).

USER INNOVATION IN DIGITAL FABRICATION POINTS AT PITFALLS IN CURRENT INNOVATION THEORY

Before developing my critique any further, credit should be given to the advances that have been made over older, linear models of innovation. Innovation studies scholars have turned the table on the assumption that innovations simply flow from corporate R&D departments and reach users through consumer markets (Godin, 2006). It has been convincingly argued that companies do not always initiate, but often make available, discoveries that were first made by users and customers. Alternatively, companies are created by users after they accidentally discovered some improvement while using a product (von Hippel, 2005). Furthermore, innovation studies scholars have introduced nuances to the old, economic model of what drives people to innovate. Pecuniary motives are still seen as an important factor. But so is the desire to have fun, to learn useful skills, to gain recognition from peers, and, finally, the craving for a product better accustomed to one's needs than anything available on the market for the time being (Morton and Podolny, 2002).

In the last point, we explore the fact that most studies of user innovation suggest that users are motivated to innovate in order to have better products. Users are motivated to invent and reveal information to each other so that they can develop a product that better approximates their needs and desires. The user, thus understood, is a consumer avant-la-lettre. The only thing that distinguishes him or her from ordinary consumers is that the desired consumer product and corresponding markets have not-yet come into existence. The creation of such a consumer market is the telos, to borrow an out-of-place term, of the innovation process.

A problem arises when this theoretical apparatus is applied to digital fabrication tools. The object in question is not intended for consumption, but for fabrication. Differently put, we are following grassroots groups whose practices are oriented towards process innovations in the sphere of production, rather than product innovations in the sphere of consumption. It is for the sake of clarity that I overstate the difference between production and consumption, knowing that the two cannot so easily be told apart. Nevertheless, phrasing the argument in those terms pushes us to think harder about what has been presupposed in the notion of the user. Like the consumer, the user is understood to be a free-floating atom, detached from history and society, even when the number of users adds up to make a community (Haroff, Henkel, von Hippel, 2003). It follows that the community is nothing more than an empty space where individuals exchange information with each other. Lost is a deeper understanding of the dynamic transformations of a community over the course of its life-cycle, bound up with transformations in society at large (for such a critique, see Oost, Verhaegh and Oudshoorn, 2009; Söderberg, 2011).

INNOVATION PROCESSES AND OPEN HARDWARE DEVELOPMENT

Product innovation strives to develop a consumer good that satisfies a new need or demand, while process innovations aim to reduce production costs and/or increase output, with the ultimate goal of having more products. Digital fabrication tools incarnate the second type of innovation. Having said that, the homebrewed versions of this technology have been developed under conditions altogether different from the ones encountered in a large manufacturing plant. Subsequently, to streamline this production process presupposes entirely different engineering problems and benchmarks than those typically assumed in economics schoolbooks. The primary obstacles that hobby engineers encounter are limited know-how among fellow hobbyists and material and financial constraints, under which they tend to work. Consequently, process innovation in this setting strives for more user-friendly, easy-to-assemble digital fabrication tools, built from generally available and cheap, off-the-shelf components (Söderberg, 2010). What the grassroots groups

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INTERNET POLICY REVIEW

are aiming for, in other words, is to bootstrap the material infrastructure that enables them to innovate in the first place.

This points to a precondition for innovation that nevertheless has been given little attention in innovation studies literature, namely the constraints of material infrastructure and the importance of design choices. In saying this, I am merely rehearsing insights from STS scholars in the social construction of technology-tradition (Pinch and Bijker, 1984). Perhaps the omission of infrastructure and design in innovation studies can be explained with the heritage of the economic discipline. In economics, technology is considered as just one more ceteris paribus (assumption that technology remains unchanged). The problem is, if researchers do not take a sustained interest in design choices, one compelling reason for grassroots groups to engage in (process) innovation disappears from view. If this much is granted, we are confronted with the circularity of a goal such as 'making a printer that makes a printer'. At least as it concerns the core developers pushing this technology forward, the circle is never closed in a product with a use or exchange-value, something that could bestow purpose and meaning to their endeavour.

To make any sense of it at all, we need to shift the interpretative framework. Instead of an aggregation of atomistic users with overlapping (but individual) incentives, we must stipulate a collective of sort, held together by shared worldviews, norms and identities. From the latter vantage point, we see that the recursive nature of the tool is mirrored in the recursive nature of the group itself. Put differently, the tools are but one moment in the larger process by which the community constitutes itself and asserts its autonomy vis-à-vis other entities in the world.

I wage on that the interpretative framework here proposed will gain in plausibility with the changes taking place on the ground. What recently appeared to be singular and spectacular instances of open or user innovation in the field of digital fabrication tools, must now be reinterpreted in light of growing cooperation and inter-connectedness across individual development projects. In the last few years, common repositories for 3D designs and software have been created, attempts are being made to erect a legal framework around Open Hardware development, fairs and conferences are organised and visited by the same people, etc. All of which converges in the creation of a common (geek) public, to use Chris Kelty's expression (Kelty, 2008). It follows that the work of one team of users in one project cannot be treated in isolation from other teams and projects. The recursive dynamic implied in 'making a tool to make a better tool' overspills the individual project and transforms the horizon for what is possible to do in the Open Hardware movement as a whole. The discrete, one-off approach to studying product innovation by user-consumers, (the approach dominant in innovation studies), cannot account for process innovations by

users that, like the tide, 'raise all the boats'. The reason is that the overspilling of methods, software, engineering practices, and so on, from one project to another, is predicated by all the other things that are held in common in this geek public, their worldviews, their norms, and politics. Or, differently put, by the framing process around Open Hardware.

CONCLUSION

The interpretative framework that I am advocating, borrowed from social movement theory, will look increasingly plausible, the further a movement around Open Hardware development gets in constituting itself as such. The innovations and design choices stemming from this movement are inseparable from how it frames its activities and interprets its place in the world.

We can expect this framing process to be catalysed by the conflicts over intellectual property that are currently in progress. The free software movement came into existence in part in reaction to the expansion of copyright claims to include machine-readable software. The law had been changed at a previous date in the US, but firms only began to exercise their new rights in the mid-1980s.

There have already been skirmishes over intellectual property with regards to 3D objects. Lobbying is underway to extend international, intellectual property law to this new domain. Claims for ownership will not be enforceable, however, without supplementary clauses that regulate circumvention devices. That is to say, devices indistinguishable from openly licensed and modular, digital fabrication tools (Söderberg and Adel, 2012). As the financial stakes in this field surge, external pressure from intellectual property claimants and industry lobbyists will build up too. Concurrently, the community will be forced to respond to attempts by individuals and firms to enclose openly licensed information and designs. An interpretative framework centred on meaning constructions and norms in the community is required in order to make sense of this development. Without such a deep-probing, open-ended investigation of the movement around Open Hardware, we will not understand much about the innovations stemming from this movement. As an added bonus, the interpretative framework proposed here allows us to pose the question of whether, after consumer markets and an industry have established around Open Hardware products, the original goals of the movement were realised thanks to this success, or rather, if they have merely been recuperated. ◆

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ROBIN P. G. TECH

Marx, Engels, and 3D printers

Imagine. Imagine you require a spare part for your fridge. Or a toy dinosaur for your daughter. Or a new frame for your glasses. Sure, you could go to a store (online or offline) and buy it. But why don't you just produce it at home? Once the model is loaded from the Internet and sent to the 3D printer sitting on your desktop, you'll hold your desired object in your hands in no time. Quite an intriguing mode of production and consumption, isn't it?

Certainly, supplying the necessary machinery, or 'instruments' if we're to begin using Marxist terminology, requires capitalist division of labor and a mode of production marked by the exploitation of man and nature. However, what follows from owning such a production means seems so very different from what Karl Marx and Friedrich Engels described in their *A Contribution to the Critique of Political Economy* (orig. Zur Kritik der politischen Ökonomie). In the following, I intertwine two rather central strings of argumentation by Marx and Engels with the emerging field of individual and privately-owned 3D printers.

ELIMINATING THE FORCED EXCHANGE OF GOODS

The notion that the value of a good can be based on various and varying assumptions is neither an original nor an exclusively Marxist idea but contributes nicely to their discussion on the genesis of value making.

When a product becomes a tradable good it obtains a monetary attribute in imitation of its trade value (orig. Tauschwert, 1983, p. 35). From this point on, money acts as a gauge and thence establishes comparability and equivalences between goods. Potential problems arise if equivalences, respectively exchange values of goods, become utterly disproportionate because of other measurement principles or methods (1983, p. 65). Such methods could, for example, involve assessments on the basis of labor, material, instruments, and additional cost factors that were externalised, i.e. not included in the calculation. Marx and Engels describe this detachment of money and product as well as the sanctimony of many exchange relationships, creating a variety of interesting points of contact. Focusing, as a start, on the problems that organically accompany the exchange of goods already gives rise to a fascinating thought.

In the past, specialisation of individual competencies in the wake of the division of labor inevitably pushed individuals into a situation in which they were forced to become trade-dependent consumers (1983, p. 417). Criticality was yielded by the phenomenon that an indirect valuation of goods through the forced exchange and the resulting valuation on the basis of the trade value could deviate from the inherent and uncharged value of the good. If one would, however, lift the necessity for trade, even if only in subdomains, by creating a potent, flexible, and individual

means of production such as the instrument 3D printer, two possible scenarios could emerge: Either, produced goods would be valued close to a labor- and material-based assessment plus some charge of diverse couleur (emotions etc.) or they would elude valuations altogether, as these goods would only be used and not traded at all.

THE PRODUCTION OF THE CONSUMER

Novel ideas begin to take shape as these newly established trade and consumption dependencies are connected to the Marxist assessment of capitalistic creation of needs.

Marx and Engels observed a production of goods that created its own consumers. From this they derived the so-called "consumptive circle" (orig. konsumtive Zirkel). Beginning with the quantitative expansion of existing consumption, it continues with an expansion into other markets, and ends with the creation of new consumer needs and utility values (1983, p. 322). Marx and Engels link this circle with the general tendency of capital to turn what previously seemed superfluous into a necessity (1983, p. 433). Hence, the following question arises: If local production is put in the hands of individuals, would the circle break? The owner of a 3D printer might aim for a lower output of products due to his or her knowledge of the resource input, and would not only rescind from creating additional needs, but potentially pursue a reduction of needs. Naturally, a completely diametral trend would be possible as well.

Let us now elaborate a little more on the aspect of ownership. Though Marx probably had a different kind of machine in mind, he proclaimed that machines wouldn't cease to be agents of societal production as soon as they became the property of associated workers (1983, p. 723). Marx and Engels might have used this predication to counter criticism accusing them of designing a technology-hostile societal model. Quite on the contrary, they included and utilised the productive accomplishments of the industrial revolution in their concept – with the difference that the ownership of production and its instruments would be transferred to the community instead of being concentrated with the bourgeoisie. An atomised production in possession and ownership of individuals would thence come relatively close to such a notion and would additionally, and unquestionably, thwart the alienation from the product (1983, p. 723 & p. 422).

NATURE, SPACE, AND TIME

This paragraph will briefly examine three more dimensions (no pun intended) that could provide fodder for further discussions. First and foremost, the classification of 3D printed
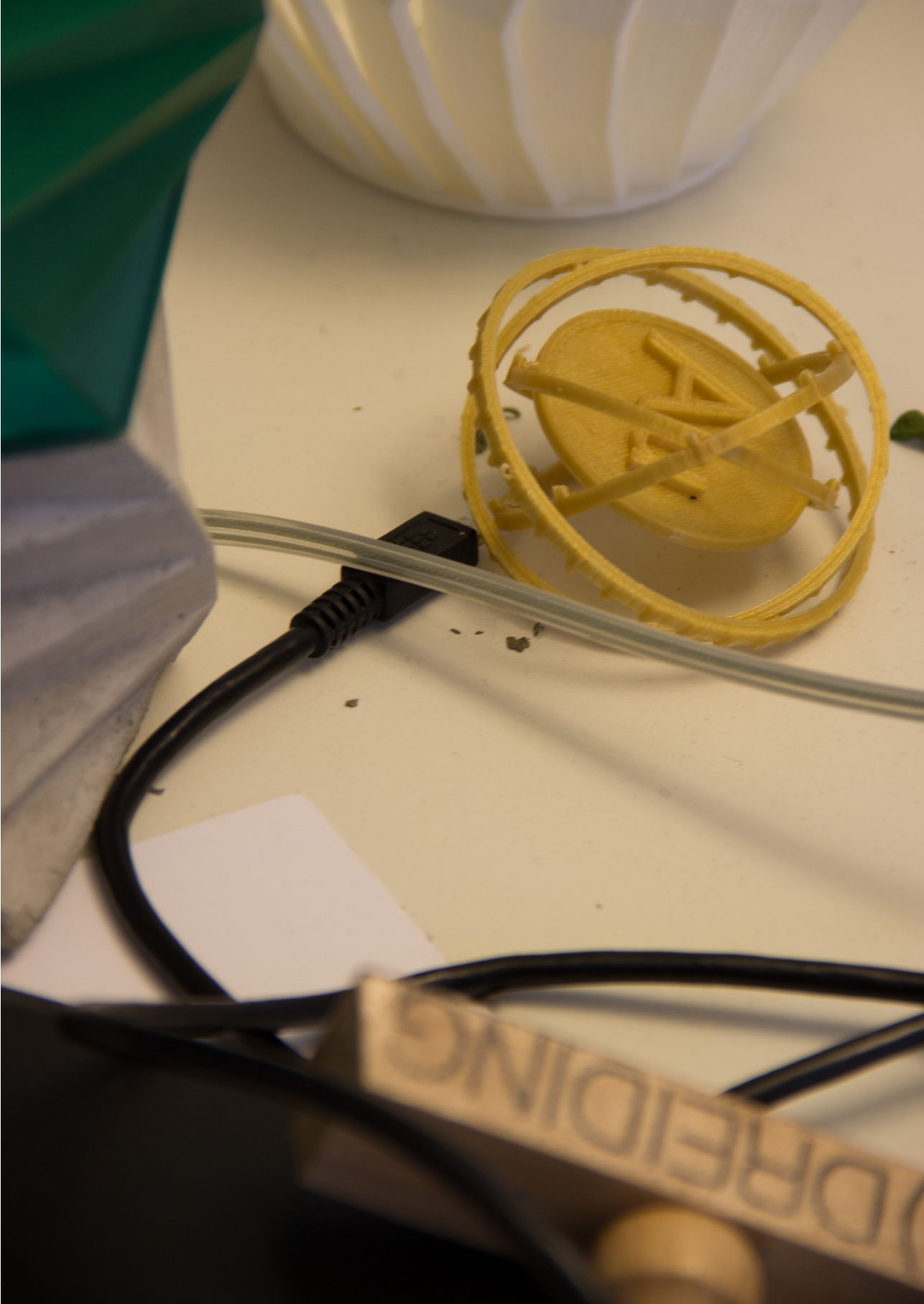
goods is complex. Most of the products are not regarded as natural necessities in the Marxist terminology, nor are they luxury items (1983, p. 434). Answering the question of what kind of need is satisfied by a 3D printed object would probably have to be a case by case decision. To stay in the dimension of nature, multi-faceted spaces for argument arise in connection to the sustainability and unnaturalness of this mode of sophisticated good production, including hints that can be found in the Critique of Political Economy already, when the transformation of natural materials into organs of the human will is discussed (1983, p. 602).

A closer look at the striving of capital to overcome local bounds (1983, p. 445) described by Marx could also be quite rewarding. Especially if one connects it to overcoming those borders through ideas and 3D models in the form of digital information – produced collaboratively and made freely available.

In the context of collaborative centralised production, Marx elevates the economy of time as a law to much higher levels than capitalism does (1983, p. 105). However, this might contrast the fragmented and possibly more time-intensive and inefficient production of such decentralised 3D machines.

The informed reader has hopefully been able to spot various contradictions and to have benefited from the two plays of thought that emerged from the connection of 3D printers and basic Marxist ideas. I'm looking forward to your opinions and close with a quote:

> "One must bear in mind that the new forces and conditions of production do not emerge of the void, nor the air, nor themselves; but within and contradicting existing evolutions of production and passed on, traditional ownership structures." (own translation)

> Orig.: "Es ist zu bedenken, daß die neuen Produktivkräfte und Produktionsverhältnisse sich nicht aus Nichts entwickeln, noch aus der Luft, noch aus dem Schoß der sich selbst setzenden Idee; sondern innerhalb und gegensätzlich gegen vorhandne Entwicklung der Produktion und überlieferte, traditionelle Eigentumsverhältnisse." (1983, p. 203) ◆

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THIS IS AN ARTICLE FROM **ROBIN P. G. TECH**

This article was published on 27 August 2013 on the HIIG-Blog. Robin P. G. Tech is a doctoral researcher at the Humboldt Institute for Internet and Society. His doctoral thesis focuses on the development of flexible financing structures for startups to assist their successful growth. He is also interested in sociology and Open Source hardware.
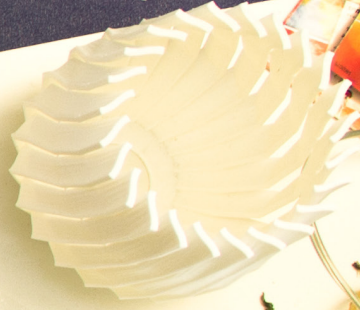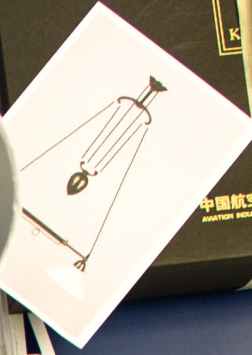
INTERNET-ENABLED INNOVATION

Far from being yet another innovation, the Internet is a novel way of solving problems while supporting creativity and communication. The Internet fosters new forms of corporate, cultural, artistic, creative and knowledge-based goods as well as the interaction between consumers, stakeholders, companies and the general public. The behaviour of individuals, corporations and institutions in terms of how they interact online is currently changing. Internet-enabled Innovation is a topic that goes far beyond corporate technology management. To explore these changes, the multi-layered approaches of Internet-based innovations have to be determined and outlined. Particular aspects that need a deeper analysis are pinpointed, such as Open Science, participation (online and through the outernet), Internet-enabled business models and the index of Internet-enabled innovation.

DREIDING GARAGE

Co-creation, peer production, Open Source hardware, and 3D printing are what the Hardware Research Team at HIIG (Robin P. G. Tech, Sascha Friesike, Hendrik Send and Björn Grzywacz) has made its focus. We perform quantitative analyses of online communities and repositories, qualitative network analyses, and engage in hardware production ourselves — amazing!

DESK OF ROBIN P. G. TECH

MAKE IT HAPPEN

Vielfalt für den Frühling

HAPPY

中国航空...公司
AVIATION INDUSTRY ... CHINA

MacBook Pro

Sonnenblumen
Gelbe Riesen

Primea
MIT CALCIUM 7

Au

Jana kann...

Pflaumer · Heine · Hartung

...tik für

Deskriptive S...

3. Auflage

Lehr- und Handbücher de...

DREIDING

PUBLICATIONS 2013

Academic articles, books, and book contributions
published by our researchers

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RESEARCH REPORT 2013

In 2013 the Alexander von Humboldt Institute for Internet and Society (HIIG) team has been dedicated to the implementation of the strategic objectives developed in 2012 and to furthering the joint research agenda.

The institute's objectives for 2013 were:

- Publication of the first research results
- Promotion of early stage researcher within a doctoral programme
- Successful implementation of the first HIIG fellow programme
- Increased international academic exchange within the Network of Centers
- Support research transfer through events, platforms and communication

In addition, it has been an important goal to secure the long-term funding of the institute and succeed in evaluated third party funding applications.

RESEARCH AREAS AND PROJECTS

The Humboldt Institute for Internet and Society has set up a joint research agenda under the guidance and leadership of the four directors, within their respective field of expertise: Internet and Media Regulation, Internet Policy and Governance, Internet-Enabled Innovation and Global Constitutionalism and the Internet. Additionally two overarching research projects have been setup to further transdisciplinary exchange and joint research at the institute. Read on for details of several key aspects from the overarching research projects and research areas:

JOINT RESEARCH TOPIC: ONLINE PARTICIPATION

Online participation is a core aspect in understanding the interplay between the Internet and society. The institute is pursuing the joint research topic of Online Participation in order to contribute towards a joint understanding of the common subject, along with a general comprehension of the follow-up process, by referring in particular to motivation, collective generation of knowledge, as well as the legal and sociological consequences of online participation.

The prerequisites and antecedents of online participation were our prime fields of interest in 2012. The analysis led to the submission of a conference paper in January 2013 and a second paper contrasting the perspective of Online Participation in a business context with Online Participation in political settings. As a spin-off, the ePetition project (see below) has generated a huge empirical dataset that is currently being evaluated and will be integrated into the project in 2014. Preliminary findings of our second spin-off project on participatory budgeting have been

reported at our conference *Chances and Risks of Social Participation*. Contrary to expectations the results point to the finding that structural data of German municipalities is not correlated with the likelihood of a municipality using participatory budgeting. Finally we cooperated with TNS Infratest to conduct a large scale survey on the participatory behaviour of German online users. The questionnaire has been finalised and we are now ready to start the interview phase.

STRUCTURES OF COORDINATION AND RULE-MAKING IN THE DIGITAL AGE

By elevating this issue to the status of an overarching theme, we aimed to strengthen the interdisciplinary bridges between the four research areas while simultaneously creating the prerequisites for comparative contributions to various research fields dealing with governance processes. While a fair portion of research projects already deal with the interaction between social, technical and legal norms, we started in 2013 to discuss these issues together in a systematic way and across projects and disciplines. As a first step, a small internal workshop with researchers from all four research areas identified overlaps and differences regarding the conceptual angles and empirical fields of our work on digital coordination and rule-making. This workshop kick-started an ongoing interdisciplinary cooperation, institutionalised as a small interdisciplinary working group that meets every other month to discuss the commonalities and differences of our specific perspectives on ordering processes. In 2014 the group aims to identify and make productive mutual inspirations and shared perspectives on developing a systematic approach towards coordination and rule-making structures.

INTERNET AND MEDIA REGULATION

We are pleased to report that our project **Participation in German Law** on e-petitions of the German Bundestag and the motivation to participate, has gained traction. Starting off as a sub-area of the joint **research on online participation**, we set sail to thoroughly investigate the people's motivation to participate by using the example of the e-petition platform of the German Bundestag. To shed light on the motivational aspect of participation we worked in close cooperation with Jan Schmidt and Katharina Johnson of Hans Bredow Institute to exploit a large set of data (approx. 3.5 mio. data points) that we retrieved from the Committee on Petitions and developed a survey that was featured on the petition platform. Interesting, preliminary results were revealed by Jan Schmidt in a joint presentation with Helen Margetts, Director of Oxford Internet Institute, at the event *Chances and Risks of Social Participation* in Berlin. The results from the data set and the survey are to be published in two transdisciplinary sister papers in 2014: one from a primarily social scientific and one from a primarily legal perspective. In anticipation of the latter Julian Staben and Lennart Ziebarth also gave a talk on the historic changes, public expectations and legal realities concerning the practices of and around e-petitions during an event focused on e-participation of the DG Connect of the EU-Commission in Brussels.

A secondary focus for our research on Internet and Media Regulations is the governance of user behaviour in Social Media. The related project **Social Media Governance**, which is being conducted by a network of researchers from HIIG, Hans Bredow Institute and Haifa University, evolved during the year with regard to its theoretical framework and methodological grounding as well as with regard to empirical research. In July, we met in Haifa for a very fruitful workshop on the first point with our colleagues Niva Elkin-Koren, Tal Zarsky, Gustavo Mesch, and Rotem Medzini. In addition Malte Ziewitz from NYU also joined the workshop and supported us with his helpful feedback on our presentations and drafts. After this conceptual work was completed, we began the empirical phase of our first case with an intensive analysis of Facebook's 'code'. This was done in order to term the design and the technical architecture of this technological artifact, and to term the laws and contracts that are related to a certain pattern of privacy sensitive user behavior in Social Media. For this first inquiry we chose the sharing of pictures of a third person as an example of such a practice on Facebook. To get an insight also on social norms covering this practice, we developed and conducted a survey both in Germany and in Israel. After having accomplished the field phase, there are now two papers on track to publication: one on our first study of privacy related user behaviour on Facebook and another on methodological questions concerning the analysis of 'code'. Wolfgang Schulz and Markus Oermann also presented sneak previews on findings of this project on several occasions during the year.

In pursuit of our interest in constitutional law and the Internet, Markus Oermann and Julian Staben also published an article on the concept of standing (or interference in fundamental rights) and chilling effects in German constitutional law, taking police patrols in social networks as an example. The article was accepted by the renowned German public law journal *Der Staat*, which also has an interdisciplinary profile.

Work related strength: A common feature of all our projects is interdisciplinarity – though vested with a distinct legal context, our work is never narrow in its thinking and scope. Stimuli coming from other disciplines are regularly taken into account to round up the strong legal and academic background, making for very versatile and dynamic research. This allows for the filling of research gaps that have for the most part, been previously unattended to. We are able to rely on several connections to further our disciplinary and interdisciplinary work – be it in the practical field or in the international scientific field – such as our cooperation with Haifa in the Social Media Governance project or the joint presentation on e-petitions with Helen Margetts, Director of the Oxford Internet Institute.

Areas of development: After a focused period of in-depth research we will concentrate on publishing our project results during the upcoming year and present our work to a broad audience – interested parties with an academic or non-academic background alike.

INTERNET POLICY AND GOVERNANCE

The activities in this research area in 2013 can be characterised by a successful combination of crafting and focussing the research agenda on the one hand, and well-received events and publications on the other.

After a widely received publication in 2012, we presented the framework of our lead project **Circulation of Cultural Goods** at Re:Publica 2013 (one of Europe's key conferences on the digital society) with encouraging resonance. A paper laying out the conceptual angle was drafted in 2013. It will be published in the first months of 2014. Additionally, we laid the foundations for two major case studies starting in 2014: Firstly, we initiated a cooperation with the CREATe Consortium (UK) resulting in a joint workshop on *Reforming Formats. Producing and protecting audiovisual formats in convergent media* with more than 30 international participants from academia and business. This kick-started the development of a joint international grant proposal. Secondly, we developed a complementary case study investigating the tension between imitation and innovation in the digital games industry and hired a researcher for this 18-month case study, which began in February 2014.

At Re:Publica we also hosted a high-profile panel on Internet policy and infrastructure which received extensive media coverage. At this panel we announced the launch of our open-access short-form journal on Internet regulation: **Internet Policy Review**. Since then we have published 30 academic, peer-reviewed papers and 41 news pieces side-by-side. In this short time, we gathered 14 researchers as authors and 50 as reviewers.

In the context of the project **Freedom of Expression in the Quasi-Public-Sphere** we contributed to international debates on human rights standards and free speech principles in the online world at prolific events such as the Stockholm Internet Forum 2013, a workshop on Internet Freedom in Democratic Southeast Asia in Jakarta (German Marshall Fund), the IGF in Bali and the 4th Human Rights and Science Conference in Warsaw (Leopoldina). A paper co-authored by Kirsten Gollatz received a Best Paper Award from the Network Of Excellence in Internet Science. We also conducted the German country study for the global Freedom on the Net Report. Additionally, we joined seven other academic institutions across the world (e.g. USA, India, Brazil) in order to try and develop a methodology to rank major Internet and telecommunications companies by characteristics of free expression and privacy, based on their policies and transparency practices (Ranking Digital Rights). The dissertation *Private Arrangements for Governing User-generated Content in Online Social Networks* framing these activities has been specified in terms of its conceptual and empirical design, and theoretically substantiated.

Work related strength: In sum, the research area has been strong in initiating national and in- ternational cooperation and outreach. This is reflected in our hosting of and participation in

prolific events mostly addressed at mixed target audiences made up of academics and professionals. Our empirical and conceptual approach on Internet Policy and Governance is grounded in social science methods and theory and has also started to resonate in relevant communities.

Areas of development: Building on this, we will publish our overdue conceptual paper in 2014 in order to determine and communicate our research profile. The increase of academic publications is a general area of development in this research area – as well as the (successful) acquisition of external funding. The already initiated collaborations and projects for 2014 constitute promising measures towards these objectives.

INTERNET-ENABLED INNOVATION

2013 was characterised by a considerably growing team, by extensive empirical research in all projects, and by focusing on the dissemination of our results.

In our lead project **Open Science** we gathered in-depth empirical data and initiated strategic partnerships. We conducted a systematic review on data sharing literature with the intent to identify factors influencing a researcher's data sharing behaviour. The review covered 101 research papers and included a meta and a content analysis. Together we conducted a large quantitative survey among professional users of secondary data of the Socio Economic Panel. The results will enable us to triangulate the category system that we derived from the systematic review. In cooperation with the Leibniz Research Association and the German National Library of Economics we will also conduct a national survey among Leibniz researchers, focussing on personality factors and data-sharing, data-sharing motivations and barriers. Also we conducted 22 in-depth expert interviews on sharing information and the use of web 2.0 tools in research. We complemented this solid empirical basis with a systematic review on data-sharing factors. We made use of our empirical work in a number of scientific publications. Papers: Analysing the Social Dilemma of Putting Open Science into Practice (Scheliga, Friesike), Results of a systematic review: A Framework for Datasharing in Academia (Fecher, Friesike, Hebing), Open Science – 1 Term, 5 schools of thought (Fecher, Friesike). Lastly, based on our lead project, the HIIG has arranged to be a program partner for Internet and Society track at GOR conference (2014)

In the **Entrepreneurship** project we set up a team of three researchers plus support as a nucleus for an entrepreneurial research program. To access startups efficiently and generate data from them, we established several partnerships with Berlin based organisations – such as the company-builder 'Factory' and 'Humboldt Innovation' (Humboldt-Universität zu Berlin's knowledge and technology transfer office). Further, we conceptualised and implemented startup clinics, serving as an opportunity to collect relevant data on startups. Lastly, in 2013 we succeeded in launching the prototype of a learning platform for entrepreneurs.

In our **Open Hardware** project we successfully connected with the collaborative community in Germany that is currently using the Internet to develop physical objects. We gathered data on worldwide commons-based innovation on the platform thingiverse.com and are currently analysing the activity. Our project-related research from 2013 is documented in presentations at the GCSM conference, the Heinrich Böll Stiftung, and the SASE 26th Annual Conference.

Finally the **Participating through the Outernet** project has produced a number of projects and related publications by Jörg Müller and colleagues. Müller, Geier, Dicke & Spors enable users to interact with virtual sound sources in mid-air. *The BoomRoom: Mid-air Direct Interaction with Virtual Sound Sources*. Müller, Eberle & Tollmar enable passers-by to interact with remote users by means of public displays, and demonstrate the local and remote Honeypot effect: *Communiplay: A Field Study of a Public Display Mediaspace*. Valkanova, Walter, Vande Moere & Müller developed an interactive poll visualisation designed to support in-situ civic discourse. The combination of mid-air gestural interaction and the identifiable nature of participants' votes motivated passersby to engage in public debate: *MyPosition: Sparking Civic Discourse by a Public Interactive Poll Visualization*

Work related strength: With the rapid growth of our team we were able to integrate new team members into the research quickly and provide a supportive environment for their investigations. Regular exchanges of thought within the research group but also within the entire institute helped to overcome 'organisational blindness'. Furthermore, we consider our vast array of collaborations as one of our greatest strengths.

Areas for development: Because our doctoral students come from a wide area of backgrounds we have identified the application of advanced statistical methods and web science methods as an area of development.

GLOBAL CONSTITUTIONALISM AND THE INTERNET

The broadening of our research spectrum, its successful translation in specific research projects, and the subsequent growth of our team characterised the course of events in 2013.

In 2013, two new external project members Prof. Scheuermann (HU, Department of Computer Science), and Prof. Fabian (HU, Faculty of Economics) joined our lead project **Global Privacy Governance**. In particular, we focussed on the interdisciplinary conceptualisation of the project's main research questions, acquisition of internal seed funding (HIIG, nine months: 04/2013 – 12/2013, one researcher, one student assistant), acquisition of external seed funding (HU, six months, two researchers, one student assistant), two grant applications (*EU Legislation and Self-regulation*, Fritz Thyssen Foundation, 09/2013; *Anonymity in the Net: An Interdisciplinary*

Analysis, Volkswagen Foundation, 11/2013), and an international and interdisciplinary workshop on *Cloud Computing and the EU Draft Data Protection Regulation* in July 2013.

KORSE (Network of Excellence for the Law of Civil Security in Europe): The project, which deals with Internet related aspects of Civil Security in Europe, started in September 2013 with four doctoral researchers, who took part in the kick-off symposium of the Network in November 2013.

Orphan Works: After receiving seed funding for the project, (which aims to investigate the challenges faced by orphan works for copyright law from transdisciplinary perspectives), we developed a funding proposal for a comprehensive research project, which will be submitted to the German Research Foundation (DFG) in early 2014. A sub-project dealing with the use of orphan works in the film industry (also financed by external funding) will also start in early 2014.

Digital Public Administration: During 2013, we worked on the research designs and focussed on refining the research questions of two sub-projects: *PA and the Data Revolution* and *Internet-enabled Public Administration in Developing Countries*. We conducted a comprehensive literature search, as well as field research in Kenya.

Work-related strength: We have acquired exceptional expertise in translating research ideas into specific, workable research projects, setting the foundation for our research in the coming years. We intensified our cooperation with several faculties of the HU leading to various joint research endeavours. In line with this, tangible joint research projects, as well as derived proposals for third-party funding were conceptualised – of which two proposals have already been submitted. The successful acquisition of external funding from the BMBF (Federal Ministry for Education and Research) for a major research project – making the HIIG a partner in the Network of Excellence for the Law of Civil Security in Europe (KORSE) – was a highlight for our research group. We also intensified our exchange with national and international stakeholders, both from the private sector (technology firms) as well as the public sector (e.g. the German and the Chilean Ministry of Economics, as well as the IT-Planning Council), and several academic institutions.

Areas for development: After the successful development of our research spectrum, as well as the resultant research projects, we can now concentrate on the research itself, giving special attention to our research area of the Digital Administrative State.

PROMOTING EARLY STAGE RESEARCHERS

In order to promote young academics in the field of Internet Research, the HIIG started a doctoral programme in 2012. In 2013, the doctoral team was expanded significantly follow- ing the launch of two research projects. Until the summer of 2013, three graduate students were hired for our research project on Internet Innovation and Entrepreneurship and the consequent establishment of the Startup Clinics. The students are responsible for designing and running the clinics so as to enable them to analyse and utilise the results for their dissertation projects. For the BMBF-funded project Network of Excellence for the Law of Civil Security in Europe (KORSE), four new positions for doctoral students were opened in September and October of 2013. Thanks to a thorough and concerted selection process, involving the directors and the employees, we were able to choose candidates who could be seamlessly integrated into the whole HIIG team. Another four candidates joined our team, largely financed by collaborations with other universities and research institutions (HWR, TU Berlin, Fraunhofer Fokus). Additional funding for PhD positions could be obtained from KPMG . Thus, the programme grew to 18 doctoral students. Due to the high number of new doctoral candidates at HIIG, we introduced a differentiation between associated doctoral students and participants of the doctoral programme. The main differences relate to the tasks the participants of the doctoral programme have to accomplish.

In 2013, we organised a HIIG-event to offer the young researchers in the field of Internet and Society an opportunity to network – within Germany and internationally. The HIIG's doctoral students prepared the contents and directed the Early Stage Researchers Colloquium (ESRC), which was well attended with about 80 participants. There was much positive feedback, especially in regards to the interesting selection of topics and the high level of academic discussion. Due to the fact that academic events, focussing on specific methodical knowledge for Internet research, are not actually standard offers of (for example) graduate schools, a three-day training course on various methods of Internet research (network analysis, Netnography, surveys, and software-based data collection) was designed and carried out in May 2013.

A list of the doctoral students' numerous invitations to national and international scientific events can be found in the appendix.

FELLOW PROGRAMME

Over the summer months (July to September) of 2013, the HIIG invited for the first time international researchers to Berlin for subject-specific exchange in the context of a newly introduced Fellowship programme. Candidates from all areas of Internet research were invited to apply with

independent, transdisciplinary projects featuring promising connections to the HIIG's research agenda. All in all, there were 33 applicants for this specific period, of which four fellows – from Australia, Switzerland, Taiwan/UK and Austria – were selected.

Each fellow was assigned a project partner from a complementary research area in order to assist them not only in integrating quickly to the current research work but also to offer them an opportunity to present and further their own research, contributing to a fruitful exchange for both sides.

NETWORK OF CENTERS

2013 saw the emergence and consolidation of the global Network of Interdisciplinary Internet & Society Research Centers (NoC), a collaborative initiative amongst leading research institutions around the globe. Adhering to a set of core values – such as openness, collaboration, and diversity – the Network pursued a range of activities aimed at fostering internationally coordinated and interdisciplinary research around a wide range of Internet and society issues. A series of regional events in particular were crucial in providing the space for fruitful collaboration and facilitated the emergence of joint teaching and research activities.

Building on conversations initiated at the inaugural Symposium on *Internet-Driven Developments: Structural Changes and Tipping Points* that took place at Harvard University from December 6 – 8, 2012, NoC participants continued to further elaborate on selected topics in a range of regional events that took place in 2013. The first such meeting focused on *ICT, Law, and Innovation: Recent Developments, Challenges, and Lessons Learned*, was hosted by the ICT Law Institute at Bilgi University, Istanbul, Turkey and took place from 23 – 24 May 2013. A second small regional event, hosted by the Center for Technology & Society at FGV School of Law, Rio de Janeiro, Brazil, focused on *Internet Frameworks and the 'Marco Civil da Internet' – Challenges in Brazil and Abroad* and took place from 6 – 8 August 2013. A further regional meeting on 8 October 2013, hosted by the Centre for Communication Governance at National Law University, Delhi, India, looked at *Freedom of Expression and Online Intermediaries: Challenges in India, Europe and Abroad*. The final NoC conference of the year took place in Berlin from 22 – 23 November, and was hosted by the Alexander von Humboldt Institute for Internet and Society (HIIG) and the Friedrich Ebert Foundation. This conference focused on *Chances and Risks of Social Participation*.

All NoC events encompassed closed working meetings for participants of the NoC (summaries: Istanbul, Rio de Janeiro, Delhi, Berlin). In line with the goal of furthering internationally coordinated research activities around Internet and society issues in an informal and flexible setting.

This approach allowed for the bottom-up emergence of a range of initiatives over the year. The Istanbul meeting for instance, saw a proposal around a shared Internet and society curriculum – an endeavour which resulted in the first collaborative teaching effort around Terry Fisher's CopyrightX course at Harvard Law School. During this first NoC working meeting in May, a proposal for a joint research project on online intermediaries was also introduced – an idea which has since resulted in a concerted research effort under the participation of NoC participants from India, Brazil, the US, Germany, Belgium, Turkey and Vietnam.

TRANSFER OF RESEARCH THROUGH EVENTS, COMMUNICATION AND PLATFORMS

Regarding its specific field of research, the HIIG is trying to establish itself as the primary point of contact for political actors, the civil society and the economy. Therefore, the Institute is committed to opening up its scientific work and research results for questions concerning these specific target groups – by developing its own products and services, for example, but also in the context of various types of events. Several event formats were successfully carried out, helping to strengthen the local networks and to raise public interest nationwide. This work was complemented by various professional conferences. An overview of the events is listed in the appendix.

Since 2012 we have received several requests for collaborations. During 2013, we selected these more specifically – based on the requirements of our own research projects and topics. Press inquiries concerning specific research topics increased significantly in comparison to the previous year, taking us closer to our overall goal of establishing the Institute as a source of information and as a platform for cross-disciplinary and practical Internet research in Germany.

In addition to the networking activities, we are working on various scientific services and communication measures: foremost, the online platforms Internet Policy Review and OpeningScience. org, the HIIG's website, the doctoral students' blog as well as various social media activities.

APPENDIX: MONITORING OF THE INSTITUTE'S ACTIVITIES

To verify the institute's objectives are being met, common evaluation criteria were developed and approved by the Scientific Advisory Council in 2012. These criteria have been met by the measurable activities of the HIIG-Team in 2013 and are thus a quantitative illustration of the institute's accomplishments:

Please note that the following tables can only reflect a selection of the institute's work.

INNOVATIVE RESEARCH

1. Development of a joint Research Agenda

DATE	BRIEF DESCRIPTION
13 September 2012	Research Agenda approved by the Scientific Advisory Council
14 March 2013	Positive evaluation of the institute's work of 2012 by the Scientific Advisory Council

2. Involvement of outstanding researchers at HIIG events

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR
18 January 2013	Berlin	Workshop @ Perspectives on Open Government in Germany with Prof. Jörg Lucke, Deutsche Telekom Institute for Connected Cities (Zeppelin Universität, Friedrichshafen), Walter Hallstein-Institute Library (WHI)	Ingolf Pernice
10 April 2013	Berlin	Lecture by Prof. Lucy Suchman @ Journal Club, HIIG	Jeanette Hofmann
11 June 2013	Berlin	Lecture by Prof. Yochai Benkler @ Rethinking Law in a Global Context: Private Ordering and Public Authority, Walter Hallstein-Institute Library (WHI)	Ingolf Pernice
27 – 28 June 2013	Berlin	Workshop on Orphan Works with Prof. Kenneth Crews (Columbia University), Dave Hansen (Berkeley Law), Melissa Levine (University of Michigan) et al. @ Walter Hallstein-Institute Library (WHI)	Ingolf Pernice
10 September 2013	Berlin	Discussion on Digital Security in Europe with Prof. Tsuchiya (Keio), Prof. Harada (IISES-Tokio) @ HIIG	Thomas Schildhauer
16 October 2013	Berlin	Discussion session with Dorothy Zinberg @ HIIG	Ingolf Pernice

3. Recognition by the relevant academic peer group through collaborative activities and cooperation with other academic organisations/platforms

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
22 January 2013	Bochum	Invitation to Lecture on "Digital Society", Ruhr-Universität Bochum	Jeanette Hofmann
17 – 18 January 2013	Hamburg	Workshop: Code as Control in Online Spaces @ Hans Bredow Institute (HBI)	Christian Katzenbach
23 January 2013	München	Workshop @ Fraunhofer Institute: Smart Cities	Florian Fischer
14 – 15 February 2013	Hamburg	Workshop @ Leibniz Science 2.0: Kick-Off-Meeting, Leibniz-Forschungsverbund	Kaja Scheliga, Benedikt Fecher
28 April 2013	Paris	Workshop @ CHI 2013: EIPS – Experiencing Interactivity in Public Spaces, Université Paris-Dauphine	Jörg Müllerx
17 May 2013	Learning Call on The Role of the State in Internet Content Regulation – Research on Administrative Censorship on the Internet, initialised by Prof. Kyung Sin Park	Mayte Peters, HIIG Researchers
23 May 2013	Karlsruhe	Lecture on Governance Intellectual Property @ Karlsruher Institut für Technologie (KIT)	Jeanette Hofmann
13 June 2013	Berlin	Invitation to the Scientific Advisory board of Deutsche Akademie der Technikwissenschaften, acatech	Thomas Schildhauer
27 June 2013	Tübingen	Invitation @ HRK, German Rectors' Conference	Thomas Schildhauer
28 – 31 July	Berlin	Invitation to IETF-Meeting, Internet Engineering Task Force	Uta Meier-Hahn
29 July – 02 August 2013	Santiago de Chile	Lecture with Prof. Dr. Salvador Millaleo: Internet Law in Latin America, Universidad de Chile	Osvaldo Saldías
14 November 2012	Darmstadt	Meeting @ DENOG 5	Uta Meier-Hahn
28 November 2013	Berlin	Posterdesign: Analysing the Social Dilemma of Putting Open Science into Practice @ poster session of the Leibniz-Forschungsverbund science 2.0	Kaja Scheliga
in 2013	Incorporated to the committee of the ACM Web Science 2014	Cornelius Puschmann
in 2013	Invitation to serve on advisory board of a new journal: Big Data & Society: Critical Interdisciplinary Inquiries (BD&S)	Jeanette Hofmann

4. At least one research project application (peer-reviewed by DFG or alike) p.a.

DATE	BRIEF DESCRIPTION	PARTNER	DIRECTOR/RESEARCHER
Submitted: January 2013	iLink: This project will link the legal demands of ICT entrepreneurs and start-ups with the expertise of post-graduate students at leading academic law institutions through establishing an open European network of law incubators. This will be achieved through: 1) Developing an understanding of the key legal challenges facing companies in the ICT sector, and the specificities of different national legal systems 2) Developing models and supporting tools for the provision of legal support as a professional service 3) Establishing the links between the real-world project engagements and academic programmes and 4) Establishing the longer-term sustainability of the network.	Queen Mary and Westfield College, University of London, Universiteit van Amsterdam, Katholieke Universiteit Leuven, Hans-Bredow-Institut für Medienforschung an der Universität Hamburg	Wolfgang Schulz, Martin Lose
Submitted: February 2013	Acronym: Self&SocialBodyTech, Title: The modulatory effects of bodily-expression-based technology on affective, cognitive, and social processes. Submitted to BMBF and ORA	University College London, NYU-Poly, Oxford University	Jörg Müller
Submitted: May 2013	KORSE (Network for Civil Security Law in Europe): is intended to become a German network with Europe-wide impact strengthening the contribution of German legal scholarship to European civil security research. Submitted to BMBF	Frau Prof. König (Bucerius Law School mit Frau), Herr Prof. Kugelmann (die Deutsche Hochschule der Polizei), Herr Prof. Poscher (Center for Security and Society, Universität Freiburg)	Ingolf Pernice
Submitted: June 2013	D-Werft: was created to accompany the transition from analogue to the digital media world. The partners aim to explore and develop various technologies for file-based production, archiving and distribution.	Film/TV-Enterprises Babelsberg	Thomas Schildhauer, Sascha Friesike
Submitted: July 2013	Privateproxy: offers research-based development of datafriendly software on the basis of decentralised proxysystems. Submitted to BMBF	D-Cent GbR	Thomas Schildhauer, Maximilian von Grafenstein
Submitted: October 2013	Global Privacy Governance: HU Förderlinie "Impulse", application in the context of the HU concept "Bildung durch Wissenschaft – Persön-lichkeit, Offenheit, Orientierung"	PD Dr. Kai von Lewinski (Juristische Fakultät; Stiftung Datenschutz, Leipzig), Michael Kuhn (Juristische Fakultät), Prof. Dr. Björn Scheuermann (Institut für Informatik), Florian Tschorsch (Institut für Informatik), Prof. Dr. Benjamin Fabian (Institut für Wirtschaftsinformatik), Annika Baumann (Institut für Wirtschaftsinformatik)	Ingolf Pernice, Jeanette Hofmann, Jörg Pohle
Submitted: November 2013	Anonymität im Netz: Eine interdisziplinäre Untersuchung (Online anonymity: an interdisciplinary study). Submitted to VolkswagenStiftung	Prof. Dr. Björn Scheuermann (HU, Institut für Informatik), Prof. Dr. Benjamin Fabian (HU, Wirtschaftswissenschaftliche Fakultät)	Ingolf Pernice, Jeanette Hofmann, Jörg Pohle

5. Invitations to academic lectures and panels

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
National		
13 January 2013	Hamburg	Workshop: Coding regulation in Wikipedia @ Submit: Code as Control, Hans-Bredow-Institut (HBI)	Christian Pentzold
21 February 2013	Hamburg	Lecture: Wohin geht die [De-]Regulierungsreise in Deutschland und Europa? Einführung in die rechtlichen Fragestellungen rund um Connected TV@ 4. Gremienvorsitzendenkonferenz-Forum "Connected TV: Alle auf und unter einen Schirm?" (Connected TV: Challenges and chances of public broadcast services in a convergent media world)	Wolfgang Schulz
27 February 2013	Trier	Lecture: Online-Diskurse als transmediale Diskurspraktiken und Diskursmuster. Konzept und methodologische Schlüsse @ annual conference DGPuK-Fachgruppe Mediensprache und Mediendiskurse	Christian Pentzold
15 February 2013	Düsseldorf	Lecture: Multimodale Frames analysieren. Werkstattbericht eines qualitativen Mixed-Method-Ansatzes (Analysing multimodal frames. Studio report of a qualitative Mixed-method approach) @ workshop "Frame-Theorien im Vergleich: Modelle, Anwendungsfelder, Methoden" (Comparing frame-theories: Models, fields of applications, methods)	Christian Pentzold
01 March 2013	Karlsruhe	Keynote on Open Access @ conference "Information der öffentlichen Hand", Zentrum für Kunst und Medientechnologie (ZKM)	Jeanette Hofmann
19 March 2013	Hamburg	Lecture @ conference "Public Broadcasting Funding in the 21st Century" at the Center for Transnational IP, Media and Technology Law and Policy, Bucerius Law School	Wolfgang Schulz
4 June 2013	Berlin	Lecture: Internet Policy @ Intajour Fellowship Programm "Journalism in the Digital World", International Academy of Journalism	Wolfgang Schulz
02 July 2013	Lüneburg	Lecture on Public-Service broadcasting in the 21th Century, Leuphana Universität	Wolfgang Schulz
31 July 2013	Hamburg	Lecture: The King is Dead, Long Live the King – The Ambiguous Role of Copyright in a Digital Society @ Repeat, Remix, Remediate- Modes and Norms of Digital Media Repurposing, Summer School 2013, Hans Bredow Institute (HBI)	Wolfgang Schulz
11 September 2013	Berlin	Lecture: Das "Kommunikationspanopticon" als Herausforderung für die Datenschutzregulierung von inkludierenden Onlinekommunikationsdiensten (The "communicative Panopticon" as a challenge for the privacy regulation of social media services) @ Herbstakademie 2013, Humboldt-Universität zu Berlin	Markus Oermann
19 – 20 September 2013	Aachen	Lecture: Konzept und Methodologie einer transmedialen multimodalen Online-Diskursanalyse (Concept and methodology of a transmedial, multinational online-discourse analysis), Gesellschaft für Angewandte Linguistik (GAL)	Christian Pentzold
01 October 2013	Tübingen	Lecture: Das Internet als Basis für Innovationen (Internet as a platform for innovation) @ annual conference, Görres Gesellschaft	Hendrik Send
16 October 2013	München	HIIG representative: Kick-off Workshop study of the future (Phase IV) in the context of Münchner Kreis, TNS Infratest	Birgit Gebhardt
21 October 2013	Bielefeld	Lecture: Wandert die Produktion in das Wohnzimmer? 3D-Druck als Dritte Industrielle Revolution (The living room as a site of production? 3D-printing, the third Industrial Revolution), Universität Bielefeld	Hendrik Send
24 October 2013	Berlin	Lecture: Challenge Electronic (online) media. Identification of opportunities and risks for the sexual rights, organised by University of Lucerne, Eventpassage	Kirsten Gollatz
15 November 2013	Potsdam	Lecture: Kommunikationsverfassung, Kommunikationsgrundrechte, Staatsfreiheit – Staatsfreiheit als Gestaltungsprinzip (Political communications, communication rights, freedom of the state – freedom of the state as a formal principle) @ conference "Staat und Medien", Studienkreis für Presserecht und Pressefreiheit	Wolfgang Schulz

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
07 November 2013 | Hamburg	Lecture: Wer den Code schreibt, hat die Macht? Regeln in sozialen Netzwerken (Rules in social networks) @ Deutsches Institut für Vertrauen und Sicherheit im Internet	Wolfgang Schulz
19 November 2013 | Berlin	Lecture: The Digital Administrative State @ Law & Society Institute, Humboldt-Universität zu Berlin	Osvaldo Saldías
20 November 2013 | Hamburg	Presentation: Vernetzung, Sichtbarkeit, Information? Nutzungsmotive informeller digitaler Kommunikationsgenres unter Wissenschaftlern in Deutschland und Großbritannien (Networking, visibility, information? Usage of informal digital communication-genres concerning scientists from Germany and Great Britain) @ Science 2.0 in Bibliotheken (Science 2.0 in libraries), Deutsche Zentralbibliothek für Wirtschaftswissenschaften (ZBW)	Cornelius Puschmann
25 November 2013 | Berlin	Lecture: Big Data – Wer ist verantwortlich für Wahrscheinlichkeitsresultate? (Big Data – Who is responsible for probable results?) in the context of the master studies "Leadership in digitaler Kommunikation" (Leadership in digital communication) of the Berlin Career College, Berlin University of the Arts in cooperation with University of St.Gallen	Maximilian von Grafenstein
04 December 2013 | Bernburg	Lecture: Wissenschaft und Digitales: Forschung und Publikation im digitalen Zeitalter (Sciences and Digitisation: Research and Publication in the Digital Age), Hochschule Anhalt	Benedikt Fecher, Robin P. G. Tech
05 – 07 December 2013 | Frankfurt a. M.	Panel: Shit Storms and outrages – reasons of Internet criticism, Goethe-Universität Frankfurt am Main	Theresa Züger
10 December 2013 | Düsseldorf	Talk: Issues in working with Twitter Data @ course "Analyzing Social Media" (by Dr. Merja Mahrt), Heinrich Heine University Düsseldorf	Cornelius Puschmann
20 December 2013 | Frankfurt a. M.	Lecture: Anmerkungen zur Institutionalisierung von Wissenschaftsblogs (institutionalisation of scientific blogs) @ workshop "Dynamisches Bewahren?!" (Dynamic conservation?!), Deutsche Nationalbibliothek	Cornelius Puschmann

International

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
11 February 2013 | Oxford	Talk: A Tale of Two Platforms: Emerging communicative patterns in two scientific blog networks @ Social Networks Seminar Series at Nuffield College, Oxford Internet Institute (OII)	Cornelius Puschmann
04 April 2013 | Istanbul	Lecture: The Future of Data Protection: Great Expectations @ Bilgi University	Osvaldo Saldías
16 April 2013 | London	Lecture: Collecting Twitter data @ Workshop "New Social Media, New Social Science?", National Center for Social Research, SAGE, Oxford Internet Institute, Royal Statistical Society	Cornelius Puschmann
15 May 2013 | Santiago de Chile	Lecture: The Administrative State & Big Data @ Heidelberg Center for Latin America, Universität Heidelberg	Osvaldo Saldías
17 May 2013 | Santiago de Chile	Lecture @ conference "Problemas Actuales en Ética Global", Instituto de Estudios Internacionales	Theresa Züger, Osvaldo Saldías
23 May 2013 | Istanbul	Moderation: Towards Good Policy-Making @ Regional Conference Turkey "ICT, Law, and Innovation: Recent Developments, Challenges, and Lessons Learned" (NoC)	Wolfgang Schulz
23 May 2013 | Istanbul	Panel discussion: Internet Governance @ Regional Conference Turkey "ICT, Law, and Innovation: Recent Developments, Challenges, and Lessons Learned" (NoC)	Wolfgang Schulz
18 June 2013 | London	Lecture: Wide open or locked down? Platform politics and research quality in big data research @ annual conference of the International Communications Association (ICA)	Cornelius Puschmann
19 June 2013 | London	Lecture: The Structures and Practices of Multimodal Online Discourse @ annual conference of the International Communication Association (ICA).	Christian Pentzold
24 June 2013 | Amsterdam	Keynote: The politics of (Twitter) data @ summer school of the Digital Methods Initiative (DMI), Department of Media Studies, Universiteit van Amsterdam	Cornelius Puschmann
26 – 29 June 2013 | Istanbul	Panel Talk: Motivation for Participation in Co-Creation @ Euram 2013	Sascha Friesike, Hendrik Send

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
06 August 2013 | Rio de Janeiro	Participation: Case Study: Privacy, Personal Data and Surveillance @ Regional Conference Brazil "Internet Frameworks and the Marco Civil da Internet: Challenges in Brazil and Abroad", FGV Direito Rio (NoC)	Wolfgang Schulz
06 August 2013 | Rio de Janeiro	Moderation: The Role of Academia in Internet Policy-Making @ Regional Conference Brazil "Internet Frameworks and the Marco Civil da Internet: Challenges in Brazil and Abroad", FGV Direito Rio (NoC)	Wolfgang Schulz
08 August 2013 | Rio de Janeiro	Lead: Online Intermediaries: Functions, Values, and Governance Options @ Regional Conference Brazil "Internet Frameworks and the Marco Civil da Internet: Challenges in Brazil and Abroad", FGV Direito Rio (NoC)	Wolfgang Schulz
28 – 31 August 2013 | Turino	Lecture: Discourse, practices and patterns online. Methodological foundations and implications @ annual conference of the European Sociological Association (ESA)	Christian Pentzold
07 September 2013 | Bordeaux	Lecture: ACTA, PIPA/SOPA: How to explain the (temporary) Setback of some Copyright Enforcement Laws @ 7th ECPR General Conference	Jeanette Hofmann
12 September 2013 | Warszawa	Lecture: Online Free Expression in the Corporate Realm: Corporations' Policies and Practices Shaping Private Speech on Communication Platforms @ 4th symposium "Human Rights and Science" of the Human Rights Committee, German National Academy of Sciences Leopoldina	Kirsten Gollatz
03 October 2013 | Jakarta	Input: Western Perspectives and Implications for Policy @ Workshop "Internet Freedom in Democratic Southeast Asia", The German Marshall Fund of the United States (GMF)	Kirsten Gollatz
03 October 2013 | New Delhi	Lecture: Constitutional Framework on Freedom of Expression in Europe @ Summer School of National Law University Delhi and Hans Bredow Institute	Wolfgang Schulz
04 October 2013 | New Delhi	Lecture: Legal Conflicts on Online Platforms @ Summer School of National Law University Delhi and Hans Bredow Institute	Martin Lose, Florian Seitz
05 October 2013 | New Delhi	Participation lecture: Protection of Minors in Germany @ Summer School of the National Law University Delhi and the Hans-Bredow-Institut für Medienforschung	Wolfgang Schulz, Martin Lose
08 October 2013 | New Delhi	Panel discussion: Online intermediaries – Challenges and Opportunities in Online Regulation @ Regional Event Delhi "Freedom of Expression and Online Intermediaries: Legal Challenges in India, Europe and Abroad" (NoC)	Wolfgang Schulz
15 October 2013 | Montréal	Featured keynote session: Tools of the trade: mechanising understanding, big data and a slow science @ World Social Science Forum 2013	Christian Pentzold
04 November 2013 | Modena	Talk: But what good are they for knowledge dissemination? A macroscopic perspective of digital genres @ CLAVIER 13: Discourse in and through the Media. Recontextualising and reconceptualising expert discourse, Università degli studi di Modena e Reggio Emilia (UNIMORE)	Cornelius Puschmann
08 November 2013 | Zürich	Panel discussion: Soziale Ordnung und Kommunikationsstrukturen (Social regulation and communications structures) @ the colloqium "Soziale Ordnung durch Kommunikation?" (Social regulation through communication?), IPMZ, Universität Zürich	Wolfgang Schulz
09 November 2013 | Wien	Lecture: What are these researchers doing in my Wikipedia? Forschungsethische Axiome und forschungspraktische Kompromisse teilnehmenden Beobachtens in digital vernetzten Umgebungen @ annual conference of the DGPuK-Fachgruppe Computervermittelte Kommunikation	Christian Pentzold
10 November 2013 | Haifa	Panel discussion: Digital Networks and Democratic Discourse, Power over and through networks. Structuring discourse @ Rutgers University Law School, USA and Haifa Center for Law and Technology (HCLT)	Wolfgang Schulz
07 December 2013 | Bern	Lecture: (De)Politicizing Internet Governance: The Role of the IGF @ Biannual Conference of the Swiss Network of International Studies	Jeanette Hofmann
13 December 2013 | Salzburg	Lecture: Von kleinen Gesprächen zu großen Öffentlichkeiten? (Dynamics of public spheres) @ conference "Das Drei-Ebenen-Modell von Öffentlichkeit", Universität Salzburg	Christian Katzenbach

6. Organisation of academic lectures and panels

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
National		
April – July 2013	Berlin	Colloquium: Rethinking Law in a Global Context: Private Ordering and Public Authority, Humboldt-Universität zu Berlin	Ingolf Pernice
02 July 2013	Berlin	Workshop: Internet from the perspective of foreign policy with Martin Fleischer, International Cyber Policy Coordinator, Federal Foreign Office @ Humboldt-Universität zu Berlin	Ingolf Pernice
26 July 2013	Berlin	Workshop: Cloud Computing and the EU Draft General Data Protection Regulation, HU and HIIG	Ingolf Pernice, Jeanette Hofmann, Jörg Pohle
21 October 2013	Berlin	Workshop: Balancing Liberty and Security in the Digital Age: Snowden and Beyond, Walter-Hallstein-Institut (WHI)	Rüdiger Schwarz, Emma Peters, Theresa Züger, Jörg Pohle
21 November 2013	Berlin	Lecture: Regulating Riesling in Times of User Generated Cocktails @ Early Stage Researchers Colloquium, Friedrich-Ebert-Stiftung (FES)	Wolfgang Schulz, Jeanette Hofmann
21 November 2013	Berlin	Lead: workshops on Open Science, open hardware, chilling effects, entrepreneurship, slacktivism, Internet-enabled innovation and net neutrality @ Early Stage Researchers Colloquium, Friedrich-Ebert-Stiftung (FES)	Kaja Scheliga, Benedikt Fecher, Robin P. G. Tech, Julian Staben, Martin Wrobel, Maximilian von Grafenstein, Theresa Züger, Stefan Stumpp, Uta Meier-Hahn
22 November 2013	Berlin	Workshop: Participation – Enabling or Hindering Democracy? @ Chances and Risks of Social Participation, Friedrich-Ebert-Stiftung (NoC)	Lennart Ziehbart
22 November 2013	Berlin	Workshop: Open Hardware – Participatory Future of Physical Goods @ Chances and Risks of Social Participation, Friedrich-Ebert-Stiftung (NoC)	Hendrik Send, Robin P. G. Tech
22 November 2013	Berlin	Workshop: Making Political Participation Effective @ Chances and Risks of Social Participation, Friedrich-Ebert-Stiftung (NoC)	Christian Pentzold
22 November 2013	Berlin	Moderation: How much difference can technology make @ Chances and Risks of Social Participation, Friedrich-Ebert-Stiftung (NoC)	Wolfgang Schulz
	Moderation: Scientific Findings: Participation in Democratic Structures @ Chances and Risks of Social Participation, Friedrich-Ebert-Stiftung (NoC)	Wolfgang Schulz
22 November 2013	Berlin	Lead: NoC Steering Committee meeting @ Chances and Risks of Social Participation, Friedrich-Ebert-Stiftung (NoC)	Wolfgang Schulz, Mayte Peters
23 November 2013	Berlin	Moderation: Online Intermediaries – Current Status and Possibilities for Collaboration @ NoC Working Session, Chances and Risks of Social Participation, HIIG (NoC)	Wolfgang Schulz
5 – 6 December 2013	Berlin	Workshop: Reforming formats. Producing and protecting audiovisual formats in convergent media, CREATe and HIIG, Kalkscheune Berlin	Christian Pentzold, Christian Katzenbach, Jeanette Hofmann
International		
23 – 24 May 2013	Istanbul	Lead: ICT, Law, and Innovation: Recent Developments, Challenges, and Lessons Learned, Bilgi University	Wolfgang Schulz, Mayte Peters
06 – 08 August 2013	Rio de Janeiro	Lead: Internet Frameworks and the Marco Civil da Internet: Challenges in Brazil and Abroad, FGV Direito Rio (NoC)	Wolfgang Schulz, Mayte Peters

7. Publications

See full publication list on page 135.

EMPHASIS ON TRANSDISCIPLINARY RESEARCH

1. Structural elements for supporting transdisciplinarity

The following steps for selecting a project were set up in March 2012 and thereafter have been used as guiding principles:

- Project pitch within the group of directors
- Project draft/exposé and agreement on the primarily responsible person
- Information/comments by the other directors and selection of at least one further director as a project supporter
- At least one project presentation with all directors p.a.
- Presentation of the results
- Regular updates between research project lead and co-lead

2. Development of a HIIG approach concerning Open Science

ACTIVITIES STARTED IN 2012	DIRECTOR/RESEARCHER
Research project Open Science, furthering the topic as a guiding principle for events and publications	Thomas Schildhauer, Sascha Friesike
Partner within the Leibniz Association Research Network Science 2.0	Christian Katzenbach, Sascha Friesike
Opening Science book, open publication to enable discussion	Sascha Friesike
Further development of platform Opening Science: www.openingscience.org	Thomas Schildhauer, Sascha Friesike, Ayca Nina Zuch
science2discuss: Blog for Internet & Society topics, lead by PhD Candidates, 75 posts in 2013	All PhD candidates
Open Science Breakfast on a regular basis	Sascha Friesike

3. More than 50 % of all projects involve at least two research areas of the HIIG

PROJECT	LEAD	CO-LEAD
Lead Project: Social Media Governance	Wolfgang Schulz	Thomas Schildhauer
Notions of Public Spheres in Information Law	Wolfgang Schulz	Ingolf Pernice
Legal Aspects of Crowd-Sourcing	Wolfgang Schulz	Thomas Schildhauer
When Data Becomes News	Wolfgang Schulz	
Lead Project: Circulation of Cultural Goods	Jeanette Hofmann	Wolfgang Schulz
Freedom of Expression in the Quasi-Public Sphere	Jeanette Hofmann	Wolfgang Schulz
Internet Policy Review	Jeanette Hofmann	Wolfgang Schulz
Lead Project: Open Science	Thomas Schildhauer	Ingolf Pernice
Motivation for Online Participation	Thomas Schildhauer	All
Participating through the Outernet	Thomas Schildhauer	Jeanette Hofmann
Index of Internet-enabled Innovation	Thomas Schildhauer	Wolfgang Schulz
Business Models	Thomas Schildhauer	Wolfgang Schulz
Innovation and Entrepreneurship	Thomas Schildhauer	Wolfgang Schulz
Lead Project: Global Privacy Governance	Ingolf Pernice	Jeanette Hofmann
The Digital Administrative State	Ingolf Pernice	Jeanette Hofmann, Thomas Schildhauer
Orphan Works in Digital Libraries	Ingolf Pernice	Jeanette Hofmann
Network of Excellence for the Law of Civil Security in Europe	Ingolf Pernice	

4. Paper on methods within problem-oriented Internet research

To be completed in 2014

PROMOTING EARLY STAGE RESEARCHERS

1. Approved objectives for the development of a post-graduate programme

Development and implementation of a concept for an Early Stage Researcher Programme since May 2012. The institute will secure the quality of the programme and the success of every doctoral project, e.g. by an in-house mentoring-programme according to the standards of the German Scientific Council.

2. Definition of an operational method for a balanced selection of candidates

By spreading the calls internationally, promising candidates will be selected according to principles such as innovative topics and ideas, excellence, transdisciplinarity, internationality, and gender equality.

3. Established research programme

NAME	RESEARCH AREA	DIRECTOR
At least four HIIG funded doctoral candidates		
Uta Meier-Hahn	Internet Policy and Governance	Jeanette Hofmann
Julian Staben	Internet and Media Regulation	Wolfgang Schulz/Ingolf Pernice
Kaja Scheliga	Internet-enabled Innovation	Thomas Schildhauer
Theresa Züger	Global Constitutionalism and the Internet	Ingolf Pernice
Acquisition of further funding for at least four more doctoral candidates		
Benedikt Fecher	Internet-enabled Innovation	Thomas Schildhauer
Robin P. G. Tech	Internet-enabled Innovation	Thomas Schildhauer
Martin Wrobel	Internet-enabled Innovation	Thomas Schildhauer
Maximilian von Grafenstein	Internet-enabled Innovation	Wolfgang Schulz
Adrian Haase	Global Constitutionalism and the Internet	Ingolf Pernice
Sebastian Leuschner	Global Constitutionalism and the Internet	Ingolf Pernice
Hannfried Leisterer	Global Constitutionalism and the Internet	Ingolf Pernice
Emma Peters	Global Constitutionalism and the Internet	Ingolf Pernice
Four associate doctoral candidates in 2013		
Stefan Stumpp	Internet-enabled Innovation	Thomas Schildhauer
Anett Göritz	Internet-enabled Innovation	Thomas Schildhauer
Stefan Keitel	Internet-enabled Innovation	Thomas Schildhauer
Steffen Tröger	Internet-enabled Innovation	Thomas Schildhauer
Martin Löhe	Internet-enabled Innovation	Thomas Schildhauer
Simon Rinas	Internet Policy and Governance	Jeanette Hofmann
Workshop programme		
All Doctoral Candidates	3-Days of Workshops: Networkanalysis, Netnography, Surveys and Software Based Data Collection; Lead: Uta Meier-Hahn, Cornelius Puschmann	
All Doctoral Candidates	Participation in individual classes/workshops (SPSS, Presentation Skills, Research Methods, etc.)	

4. Development and implementation of a fellowship programme for associated post-graduates (at least p.a.)

NAME/PERIOD	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
Florence Millerand: March – July 2013	Visiting Researcher, Associate Professor at the Department of Public and Social Communication at Université du Québec, codirector of the Laboratory of Computer-Mediated Communication	Kaja Scheliga, Kirsten Gollatz, Benedikt Fecher
Vera Franz: March – April 2013	Visiting Researcher, Open Society Foundation	Jeanette Hofmann
Moti Mironi: Since August 2013	Visiting Researcher, Professor of Law at Haifa University, Faculty of Law	Wolfgang Schulz
Dennys Antonially: September 2013 – January 2014	Part of the Internet-enabled innovation team @ HIIG, focusing on data protection and innovation, University of São Paulo	Thomas Schildhauer/Stefan Groß-Selbeck
Travis Hall: September 2013 – May 2014	Visiting researcher	Wolfgang Schulz

5. Development and evaluation of an in-house mentoring programme according to the standards of the German Scientific Council (DFG)

Successfully accomplished in 2012.

6. Quantity of active attendance of doctoral researchers at conferences (more than 1 p.p./p.a.)

DATE	DESCRIPTION	DOCTORAL CANDIDATE
14 – 15 February 2013 | Hamburg	Workshop @ Leibniz Science 2.0: Kick-Off-Meeting, Leibniz-Forschungsverbund	Kaja Scheliga, Benedikt Fecher
09 April 2013 | Bruxelles	Talk: Open Science: One Term, Five Schools of Thought @ 1st International Conference on Internet Science, FP7 European Network of Excellence in Internet Science (European Comission)	Benedikt Fecher
07 May 2013 | Berlin	Moderation: Let's Talk About Content! How the infrastructure of the Internet changes @ re:publica	Uta Meier-Hahn
17 May 2013 | Santiago de Chile	Lecture @ conference "Problemas Actuales en Ética Global", Instituto de Estudios Internacionales	Theresa Züger
15 October 2013 | Bruxelles	Lecture: Digitalising the German parliament's petition system: Common (mis)perceptions and legal reality @ ePractice "eParticipation: ICT empowering citizens", DG Connect, European Commission	Julian Staben, Lennart Ziebarth
07 – 09 November 2013 | Berlin	Panel Discussion: Digital Journalism @ Conference Complicity, Berliner Gazette, SUPERMARKT Berlin	Benedikt Fecher
21 November 2013 | Berlin	Lead: workshops on Open Science, open hardware, chilling effects, entrepreneurship, slacktivism, Internet-enabled innovation and net neutrality @ Early Stage Researchers Colloquium, Friedrich-Ebert-Stiftung (FES)	Kaja Scheliga, Benedikt Fecher, Robin P. G. Tech, Julian Staben, Martin Wrobel, Maximilian von Grafenstein, Theresa Züger, Stefan Stumpp, Uta Meier-Hahn
28 – 30 November 2013 | Frankfurt a. M.	Lecture: Internationale Dissidenz – Herrschaft und Kritik in der globalen Politik (reign and critique in global politics) @ Goethe-Universität Frankfurt am Main	Theresa Züger

7. Ratio of students who complete their doctoral thesis (at least 75%; measurement starting with the third year)

Graduations starting in 2015.

8. Generated scientific visibility (at least one paper per doctoral researcher during the first two years of the post-graduate programme)

PAPER	DOCTORAL RESEARCHER
Saldías, O. & Züger, T. (2013). The good, the bad, and the ugly: A pragmatic approach for revisiting ethics and Internet politics. *Acta Bioethica,* 19(1), 59 – 70.	Theresa Züger
Oermann, M. & Staben, J. (2013). Mittelbare Grundrechtseingriffe durch Abschreckung? Zur grundrechtlichen Bewertung polizeilicher "Online-Streifen" und "Online-Ermittlungen" in sozialen Netzwerken. *Der Staat 2013,* 52(4), 630–661.	Julian Staben
Fecher, B. & Friesike, S. (2013). Open Science: One Term, Five Schools of Thought. In Bartling, S. & Friesike (Eds.), *Opening Science* (pp. 17 – 47). New York, NY: Springer.	Benedikt Fecher
Züger, T. (2013). Digital Whoness oder vom Unterschied zwischen Was und Wer: Digitale Ontologie und Privatheit aus interkultureller Perspektive. *FIfF-Kommunikation,* 13(2), 54–57.	Theresa Züger

GERMAN NODE OF AN INTERNATIONAL NETWORK IN THE RESEARCH FIELD OF INTERNET AND SOCIETY

1. HIIG is an active founding partner of the 'Network of Centers' composed of the most recognised Internet and Society Research Institutes

Letter of Intent with core partners was signed in 2012.

Achievements in 2013:

- The network is continuing to develop
- The OII joined the network
- Four regional events were organised
- First common research project 'Online Intermediaries' was initiated
- An Internet and Society course at Harvard Law School, run by Prof. Charles Nesson (Autumn 2013), commenced

2. Successfully established fellowship programme at the HIIG (at least four non-HIIG academics)

RESEARCHER/DATE	BRIEF DESCRIPTION	DIRECTOR
Julian Ausserhofer | 02 July – 27 September 2013	Julian Ausserhofer works as a research assistant at FH Joanneum University of Applied Sciences' Institute of Journalism and Public Relations in Graz, Austria and is a PhD candidate at the Department of Communication, University of Vienna. His research interests include political use of social media, open (government) data, online publishing practices and data driven journalism. Ausserhofer is a member of the board of the Open Knowledge Foundation Austria and the Interdisciplinary Internet Research Group at the University of Vienna. He blogs at ausserhofer.net. During his stay at HIIG his research project focused on the field of data journalism.	Wolfgang Schulz
Ulrike Klinger | 02 July – 15 September 2013	Dr. Ulrike Klinger is Senior Research and Teaching Associate at the Institute for Mass Communication and Media Research (IPMZ) at the University of Zurich, Switzerland. She has written a book on Media Governance and Pluralism in Defective Democracies, which has been honoured with the 2012 Annual Dissertation Award by the German Political Science Association. She received her doctorate from Goethe-Universität Frankfurt am Main, Germany, in 2011, after completing studies and field research in Italy and Mexico. Ulrike Klinger has published on media pluralism, media regulation and on political online communication. Recent research projects in this field focus on social media in election campaigns, the quality of online deliberation processes and the emergence of a new media logic.	Jeanette Hofmann
Han-Teng Liao | 15 July – 27 September 2013	A student of various disciplines, Han-Teng Liao examines how geographic and linguistic factors (humanities and social science) and hyperlinked web data (webometrics and information science) shape the sense of "fellow users" in digital networked environments. With more than twelve years of combined information science, media/communication and open source/open data work experience, his focus has been on user-generated content and data, web analytics (webometrics), Chinese Internet Research and integrated research designs (both qualitative and quantitative). He enjoys networking with professionals on the geographic and linguistic growth/dynamics/exchanges of the Internet. He holds an MSc in Computer Science and Information Engineering, an MA in Journalism, a BSc in Electrical Engineering and a BA in Foreign Languages and Literatures. At the Oxford Internet Institute, his PhD project compares two Chinese user-contributed encyclopedias, Chinese Wikipedia and Baidu Baike.	Thomas Schildhauer
Giovanny Navarria | 22 July – 27 September 2013	Giovanni Navarria is a Post-Doctoral Research Fellow based at the Institute for Democracy and Human Rights at the University of Sydney. While being a fellow at the HIIG, he worked on a research project focusing on the effects communication media have on prevailing power-dynamics between state and citizens in the authoritarian regimes of the Asia-Pacific region. In 2013 he also completed a book on the changing meanings of power and civic engagement in technologically advanced societies. Dr. Navarria holds a PhD in Politics and Media from the University of Westminster and a Degree in Philosophy from the University of Catania.	Ingolf Pernice

3. Organising lectures (at least two p.a.)

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	LEAD
23 May 2013 | Istanbul	Panel discussion: Internet Governance @ Regional Conference Turkey "ICT, Law, and Innovation: Recent Developments, Challenges, and Lessons Learned" (NoC)	Wolfgang Schulz, Mayte Peters
06 August 2013 | Rio de Janeiro	Participation: Case Study: Privacy, Personal Data and Surveillance @ Regional Conference Brazil "Internet Frameworks and the Marco Civil da Internet: Challenges in Brazil and Abroad", FGV Direito Rio (NoC)	Wolfgang Schulz, Mayte Peters
23 November 2013 | Berlin	Moderation: Online Intermediaries – Current Status and Possibilities for Collaboration @ NoC Working Session, Chances and Risks of Social Participation, HIIG (NoC)	Wolfgang Schulz, Mayte Peters

4. Development of an event format targeting the encouragement of transdisciplinary networking in Berlin

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
30 January 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Privacy @ HIIG	Ingolf Pernice
27 February 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Human Rights and the Internet @ HIIG	Kirsten Gollatz
27 March 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Open Science @ HIIG	Sascha Friesike
24 April 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Big movies – small money? @ HIIG	Jeanette Hofmann
29 May 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Journalism & Technology @ HIIG	Nele Heise (HBI)
26 June 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Open Hardware @ HIIG	Robin P. G. Tech
01 July 2013 | Berlin	Berlin Talks on Internet and Society: Internet-enabled Innovation @ Technische Universität Berlin	Hendrik Send, Stefan Keitel
31 July 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Computergames @ HIIG	Christian Katzenbach
28 August 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Do we need Ethics for Robots? @ HIIG	Hendrik Send
25 September 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Entrepreneurial Culture in Germany @ HIIG	Stefan Groß-Selbeck
30 October 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: From University to educational streaming? @ HIIG	Wolfgang Schulz
27 November 2013 | Berlin	Digitaler Salon, Cooperation with DRadio Wissen, Topic: Cybersecurity and Cloud Computing @ HIIG	Frédéric Dubois
12 November 2013 | Berlin	Berlin Talks on Internet and Society: Intelligent systems and robotic @ Freie Universität Berlin	Christian Katzenbach
09 December 2013 | Berlin	Research breakfast: Privacy and Data Protection @ HIIG	Jörg Pohle, Rüdiger Schwarz
every second month from August 2013 | Berlin	Research breakfast: Open Science @ HIIG	Sascha Friesike, Benedikt Fecher, Kaja Scheliga, Cornelius Puschmann
monthly from September 2013 | Berlin	Research breakfast: Digital Public @ HIIG	Theresa Züger, Kirsten Golatz, Julian Staben

INTERACTION WITH POLITICS, CIVIL SOCIETY AND BUSINESS REGARDING QUESTIONS ON INTERNET AND SOCIETY

1. Selected quotations in media and Internet sources with high impact (at least two notations per month as an annual average)

DATE/MEDIA	OCCASION/BRIEF DESCRIPTION	QUOTED RESEARCHER
08 January 2013 | Deutschlandfunk	Interview: Do we have a right to delete our own data?	Jeanette Hofmann
13 January 2013 | Die ZEIT	Interview: Data and the city, how the Internet changes the perspective of tourists	Florian Fischer
31 January 2013 | Politik Digital	Article on the Discussion: EU Data Protection @ Digitaler Salon, HIIG	Ingolf Pernice
06 February 2013 | Berliner Gazette	Article: Themenrecherche, Aufbereitung und Vermarktung: Wie kann Open Journalism funktionieren? (How can Open Journalism work)	Benedikt Fecher, Stefan Stumpp
13 February 2013 | netzpolitik.org	Discussion paper: The Politics of Twitter Data	Cornelius Puschmann
18 February 2013 | El Mercurio, Chile	Article (blog and newspaper): Cloud Computing y Competencia Global	Osvaldo Saldías
04 March 2013 | fluter	Interview: Neutrality vs Control – The fight for the freedom of the net	Jeanette Hofmann
13 March 2013 | n-tv online	Online article: Expert opinion on RSS and individual news	Sascha Friesike
06 April 2013 | Deutschland-radio Kultur	Broadcast: Breitband on "Life, a Database"	Jeanette Hofmann
07 April 2013 | DRadio Wissen	Interview: The web as a living space	Jeanette Hofmann
11 April 2013 | dpa, Focus online etc.	Article: Crowdfunding	Thomas Schildhauer
24 April 2013 | Märkische Allgemeine	Article: Alliance "D-Werft" invested eight million euro in the development of a platform for film and TV. Media City wants techno revolution.	Reference to project "D-Werft"
30 April 2013 | RTL Nachtjournal	Interview: Crowdfunding	Thomas Schildhauer
13 May 2013 | bpb/Netz-debatte-TV	Interview: Gaps in copyright protection? No problem!	Jeanette Hofmann, Christian Katzenbach
27 May 2013 | rbb Kulturradio	Broadcast: Overcoming Time and Space. The opportunities and risks of the Internet	Jeanette Hofmann, Ingolf Pernice, Thomas Schildhauer, Wolfgang Schulz
30 August 2013 | Das Handelsblatt	Guest contribution: Ein Tabubruch rechtfertigt keinen Rechtsbruch (A breach of taboo does not justify a breach of law)	Ingolf Pernice
11 November 2013 | 3sat online	Interview: Große Koalition 2.0 – Welche Rolle spielt Netzpolitik künftig? (Grand coalition 2.0 – Which role will netpolicy play?)	Jeanette Hofmann
25 November 2013 | BR2 IQ	Interview: PR and Wikipedia	Christian Pentzold
25 November 2013 | dw.de	Interview: Web Index warns against online ignorance	Jeanette Hofmann
27 November 2013 | Süddeutsche Zeitung	Unfiltered democracy	Mayte Peters
28 November 2013 | Deutschlandfunk	Interview: Elites in Social Media	Christian Pentzold
09 Dezember 2013 | xethik	Article: How google glass effects society	Thomas Schildhauer
14 December 2013 | breitband DRadio Kultur	Interview: Gegen Überwachung: Politik oder Technologie? (Against observation: politics or technology?)	Jeanette Hofmann
22 December 2013 | Märkische Allgemeine Zeitung	Interview: Wissenschaftsjahr 2014: Wohin steuert das Internet? (The future of the Internet)	Sascha Friesike
30 December 2013 | LABKultur	Interview: Free circulation of data	Jeanette Hofmann

2. Invitations to hearings by policy-makers (at least five invitations p.a.)

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
04 March 2013	Berlin	Meeting of the SPD Media Commission. Paper presentation: The conquest of the Internet through social networks?	Kirsten Gollatz
05 March 2013	Berlin	Discussion with Hermann Blümel, Senatsverwaltung für Stadtentwicklung und Umwelt. Research project: Data and the City	Florian Fischer
14 April 2013	München	International Session of the European Youth Parliament. Expert on data as a resource	Julian Staben
12 June 2013	München	German Institute for trust and security on the Internet (DIVSI). Discussion: Does Germany need a digital code?	Jeanette Hofmann
10 September 2013	Nairobi	Jane Onyango und Opimbi Osore, Senior Legal Advisor, Good Governance Programme/Access to Justice, GIZ Nairobi. Discussion: Internet-enabled reform programmes in the judicial/administration system	Rüdiger Schwarz
12 September 2013	Nairobi	Dr. Bitange Ndemo, former Permanent Secretary, Ministry of Information and Communication (currently head of "Alliance for Affordable Internet" and consultant for the "Better than Cash Alliance"). Discussion	Rüdiger Schwarz
27 September 2013	Nairobi	Abraham Rugo Murio, Research Officer, Institute for Economic Affairs (IEA), Nairobi. Discussion: E-government strategies in Kenya	Rüdiger Schwarz
8 October 2013	Berlin	Dr. Rainer Stentzel, BMI. Organised by: Institut für Informatik (HU). Discussion: EU-Datenschutzreform (privacy reform)	Ingolf Pernice, Jörg Pohle, Rüdiger Schwarz, Hannfried Leisterer

3. Development of in-house products for the interchange with politics, civil society and business

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
Events/event cooperations		
monthly	HIIG	Digitaler Salon: In cooperation with DRadio Wissen the HIIG hosts the monthly event Digitaler Salon. Guests from a broad range of disciplines talk about the effects digitalisation has on society.	
2 – 3 per year	HIIG	Berlin Talks on Internet and Society: This event provides a platform for researchers in the field of Internet and society. The meeting connects researchers in and around Berlin to pool strengths and encourage interaction.	
22 November 2013	Friedrich Ebert Foundation (FES)	Chances and Risks of Social Participation: Thematically focused meeting on online participation which convened a diverse group of collaborators from a broad range of disciplines working on Internet and society issues in Germany, Europe, and internationally.	
Platform // info service		
Launch openingscience.org	The platform openingscience.org was initiated by researchers of the HIIG to create a comprehensive and informative overview of current knowledge on the subject of Open Science. By providing news articles, research results and an extensive list of initiatives referring to the field of Open Science this platform is aimed primarily at an academic audience.	Thomas Schildhauer, Sascha Friesike
Launch policyreview.org	The Internet Policy Review is a news and analysis service about Internet regulation in Europe. The Internet Policy Review tracks public regulatory changes as well as private policy developments which are expected to have long lasting impacts on European societies.	Jeanette Hofmann, Wolfgang Schulz, Frédéric Dubois, Uta Meier-Hahn

4. Invitations to non-academic lectures, panel discussions (service for media, politics and economy)

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
National (selection)		
01 February 2013	München	Presentation @ Innovation Forum Mobility.Communication.Apps, Konferenzzentrum München	Florian Fischer
01 February 2013	Berlin	Lecture: Crowd Intelligence – Lassen Sie die Nutzer für sich entscheiden (let the user decide) @ Münzsalon	Thomas Schildhauer
07 March 2013	Berlin	Discussion: (E-)Car-Sharing @ Grüner Tisch, BMW Group	Florian Fischer
21 March 2013	Kiel	Lecture: About the work as member of the Special Committee on Internet and the Digital Society of the German Bundestag @ 5. Parlamentarischer Abend, MASH and Filmförderung Hamburg Schleswig-Holstein	Wolfgang Schulz
26 March 2013	Berlin	Working meeting: Zukunftsprojekt "Internetbasierte Dienstleistungen für die Wirtschaft" (Internet-enabled services)@ acatech Hauptstadtbüro	Florian Fischer
16 – 17 April 2013	Wiesbaden	Talk: EU Basic Privacy Regulation @ Datenschutztage 2013	Ingolf Pernice
07 May 2013	Berlin	Moderation: Let's Talk About Content! How the infrastructure of the Internet changes @ re:publica	Uta Meier-Hahn
08 May 2013	Berlin	Lecture: Im Schatten des Rechts – Wie informelle Normen das Urheberrecht unterlaufen oder auch auf den Kopf stellen (In the shadow of the law – how informal norms undermine copyright) @ re:publica	Jeanette Hofmann, Christian Katzenbach
16 May 2013	Berlin	Panel: Quo vadis Netzpolitik – was folgt auf die Internetenquete? (Quo Vadis netpolitics – what will follow the Special Committee on Internet and the Digital Society) @ SPD Parliamentary Group, Friedrich-Ebert-Foundation (FES)	Wolfgang Schulz
29 May 2013	Hamburg	Panel: Fortschritt durch Technik – für eine Governance des Medienwandels (progess by technology – for a governance of media change) @ Mediendialog Hamburg	Wolfgang Schulz
06 June 2013	Köln	Panel: Die Grenzen der Regulierbarkeit. Medienpolitik in der digitalen Welt (The limits of regulation. Media politics in the digital world) @ Medienforum NRW	Wolfgang Schulz
12 June 2013	Berlin	Discussion panel: Internet of Things @ XXV. Interdisciplinary Salon, Volkswagen AG	Thomas Schildhauer
13 June 2013	Berlin	Keynote: Data City Politics. Netzpolitik als Stadtentwicklungspolitik @ Berliner Wirtschaftsgespräche, HIIG	Florian Fischer
13 June 2013	Berlin	Panel: Spurring entrepreneurship in organisations @ ESMT Annual Forum 2013	Stefan Groß-Selbeck
19 June 2013	Hamburg	Workshop: E-Culture @ Kulturbehörde Hamburg	Wolfgang Schulz
20 June 2013	Berlin	Keynote: Chile, Business and Digital Innovation @ Chilean Embassy	Osvaldo Saldías
24 June 2013	Berlin	Input @ Netz für Alle, DIE LINKE Parliamentary Group and the Rosa Luxemburg Foundation, Supermarkt Berlin	Jeanette Hofmann
27 June 2013	Tübingen	Keynote: Zehnjähriges Jubiläum des Informationsportals e-teaching.org (10th anniversary of the information platform e-teaching.org) @ Leibniz-Institut für Wissensmedien	Thomas Schildhauer
31 August – 01 September 2013	Berlin	Participating expert @ Berlin Innovation ConSensus, Factory Berlin	Thomas Schildhauer
06 September 2013	Berlin	Lecture: Konsequenzen für das Urheberrecht aus der Sicht der Enquetekommission (Concequences for the copyright from the Special Committee's perspective) @ Urheberrechtskongress 2013 "Selbstbestimmung im digitalen Netz – Urheberrecht und Nutzerinteressen in der Balance?" (Self-determination on the Internet – are copyright and user interests balanced?)	Wolfgang Schulz
09 – 10 September 2013	Berlin	Talk: Uncharted Territory out of Control? Online Data Protection and Data Security in the Digital Sphere @ Medienwoche/IFA	Jeanette Hofmann
11 – 14 September 2013	Berlin	Paper presentation @ 14. Herbstakademie 2013 der Deutschen Stiftung für Recht und Informatik and Deutsche Gesellschaft für Recht und Informatik e.V.	Markus Oermann, Julian Staben

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
17 September 2013 | Frankfurt a. M.	Panel: Digital Transformation with Dr. Frank Schirrmacher	Wolfgang Schulz
23 – 25 September 2013 | Berlin	Lecture: Value creation in open source hardware models @11th Global Conference on Sustainable Manufacturing (GCSM)	Hendrik Send, Ayca Nina Zuch, Sascha Friesike
01 October 2013 | Tübingen	Lecture: Das Internet als Basis für Innovationen (Internet as a basis for innovation) @ annual conference of the Görres Gesellschaft	Hendrik Send
10 October 2013 | München	Moderation: Die Zukunft der Arbeit in der digitalen Welt (The future of work in a digital world) @ Münchner Kreis	Birgit Gebhardt
Since 22. October 2013 | Berlin	Blended learning course Startup – Der rechtliche Weg in die Selbständigkeit @ Startup – Der Weg in die Selbständigkeit, Career Center, Humboldt-Innovation	Maximilian von Grafenstein
06 November 2013 | Düsseldorf	Lecture: Zwang zur Veränderung im Zeitalter der Kunden und Anwender (Need for change in times of customers and users) @ T-Systems Symposium 2013	Stefan Groß-Selbeck
07 November 2013 | Hamburg	Lecture and panel discussion: Wer den Code schreibt, hat die Macht? Regeln in sozialen Netzwerken (Who writes the codes has the power? Social network policies) @ Facebook, WhatsApp, Google+: Wer macht die Regeln?, Deutsches Institut für Vertrauen und Sicherheit im Internet	Wolfgang Schulz
25 October 2013 | Berlin	Lecture: Verkehrsdaten – Totale Überwachung (traffic data – total observation) @ Future Mobility Camp 2013, EUREF Campus, Innovationszentrum für Mobilität und gesellschaftlichen Wandel	Maximilian von Grafenstein
07 – 09 November 2013 | Berlin	Panel Discussion: Digital Journalism @ Conference Complicity, Berliner Gazette	Benedikt Fecher
11 November 2013 | Berlin	Dinner hosted by the British Ambassador for the Government Chief Scientific Adviser, Sir Mark Walport	Thomas Schildhauer
13 November 2013 | Potsdam	Lecture: Beteiligung via Internet – Ein Schlüssel für ein innovativeres Deutschland? (Participation via Internet – A key for a more innovative Germany?) @ Konrad Adenauer Stiftung	Thomas Schildhauer
16 November 2013 | Berlin	Lecture and discussion lead: Datenschutz – Befreiungsversuch oder Rückschrittsgefecht? (Data privacy – liberation attempt or setback?) @ BAKJ-Herbstkongress	Jörg Pohle
26 November 2013 | Düsseldorf	Concluding workshop: Kinder und Online-Werbung – Herausforderungen und Lösungsansätze (Children and online-promotion – challenges and solutions) @ Landesanstalt für Medien	Wolfgang Schulz
26 – 27 November 2013 | Herzogenaurach	Presentation of current research project @ the Innovation Excellence Days, Adidas	Ayad Al-Ani, Stefan Stumpp
26 – 28 November 2013 | Münster	Lectures: Network of Excellence for the Law of Civil Security in Europe (KORSE) @ Deutsche Hochschule der Polizei	Ingolf Pernice, Adrian Haase, Sebastian Leuschner, Hannfried Leisterer, Emma Peters
27 November 2013 | Berlin	Lecture: The KORSE Projekt at HIIG @ Embassy of Chile, Chilean Police	Osvaldo Saldías
29 November 2013 | Berlin	Lecture: Grundfragen des multimedialen Lehrens und Lernens (multimedia teaching and learning) @ GML² 2013, Freie Universität Berlin	Thomas Schildhauer
29 November 2013 | Berlin	Workshop: Informationelle Selbstbestimmung zwischen Facebook und NSA (Informational self-determination between Facebook and NSA) @ Junges Deutsch-Ungarisches Forum, Embassy of Hungary	Jörg Pohle
03 December 2013 | Bonn	Lecture: Lesen und gelesen werden: Über den Datenhunger der digitalen Gesellschaft @ Verein zur Förderung eines Deutschen Forschungsnetzes (DFN)	Jeanette Hofmann
10 – 11 December 2013 | Berlin	Workshop: Freedom of expression on the Internet @ UNESCO and Hans Bredow Institute	Wolfgang Schulz, Jeanette Hofmann
16 December 2013 | Berlin	Discussion: Fabriken für alle – revolutionieren 3D-Drucker und Open-Source-Produktion unser Leben? (3D-printing and open source production) @ Heinrich Böll Stiftung	Hendrik Send

International

01 February 2013 | Glasgow	Panel: Connecting with the world @ Opening Conference of CREATe	Jeanette Hofmann
07 February 2013 | Bruxelles	Panel: The role of state and nonstate actors in promoting media freedom and independence @ Mediadem Research Project Final European Conference	Wolfgang Schulz

DATE/LOCATION	OCCASION/BRIEF DESCRIPTION	DIRECTOR/RESEARCHER
27 February 2013 | Paris	Talk: Copyright enforcement @ Contested Governance, WSIS+10 conference, UNESCO	Jeanette Hofmann
11 March 2013 | Paris	Panel: The right to Internet Access @ members meeting of the Committee on Culture, Science, Education and Media of the European Council	Wolfgang Schulz
11 March 2013 | Paris	Panel: Improving user protection and security in cyberspace @ members meeting of the Committee on Culture, Science, Education and Media of the European Council	Wolfgang Schulz
11 March 2013 | Paris	Panel: Internet and politics: the impact of new information and communication technology on democracy @ members meeting of the Committee on Culture, Science, Education and Media of the European Council	Wolfgang Schulz
09 April 2013 | Bruxelles	Talk: Open Science: One Term, Five Schools of Thought @ 1st International Conference on Internet Science, FP7 European Network of Excellence in Internet Science (European Comission)	Benedikt Fecher
16 May 2013 | New York	Lecture: The Temptations of Big Data – A discussion on Big Data, its value and potential @ German Center for Research and Innovation	Jeanette Hofmann
21 – 23 May 2013 | Stockholm	Presentation @ Stockholm Internet Forum on Internet Freedom for Global Development	Kirsten Gollatz
30 May 2013 | Bruxelles	Presentation: Unabhängigkeit der Regulierungsbehörden (Independence of regulating authorities) @ Conference of the contact committee of the Supreme Audit Institutions of the European Union	Wolfgang Schulz
09 July 2013 | Bruxelles	Invitation: The Online Initiative: future steps? @ conference "Digital Futures Conversation" hosted by Nicole Dewandre and Franco Accordino, DG CONNECT, European Commission	Jeanette Hofmann
01 August 2013 | Santiago de Chile	Lecture: Public Sector's Cloud Adoption @ conference "Chile Hub Digital para la Región" (digital hub for the region), Ministerio de Relaciones Exteriores Chile	Osvaldo Saldías
01 August 2013 | Santiago de Chile	Panel lead: Regulatory environment for the protection of data and data security @ workshop "Chile Hub Digital para la Región" (digital hub for the region), Ministerio de Economía, Fomento y Turismo Chile	Osvaldo Saldías
15 October 2013 | Bruxelles	Lecture: Digitalising the German parliament's petition system: Common (mis) perceptions and legal reality @ ePractice "eParticipation: ICT empowering citizens", DG Connect, European Commission	Julian Staben, Lennart Ziebarth
17 October 2013 | Paris	Lecture: Global Privacy Governance @ The Futures of Privacy, Foundation Télécom, Institut Mines-Télécom	Wolfgang Schulz
13 November 2013 | Bruxelles	Talk: the impact of the communications surveillance revelations @ Global Network Initiative and the Telecommunications Industry Dialogue	Jeanette Hofmann
02 – 03 December 2013 | Luxemburg	Lecture: Internet – Im Spannungsfeld von Informationsfreiheit, Immaterialgüterrechten und Datenschutz (Internet – in the field of freedom of information, rights of immateriality goods and data security) @ 7. Luxemburger Expertenforum zur Entwicklung des Unionsrechts	Ingolf Pernice
12 December 2013 | Bruxelles	Lecture: International Association of Privacy Professionals @ Europe Data Protection Congress 2013	Osvaldo Saldías

DEVELOPING AND SECURING THE INSTITUTE'S WORK

1. Acquisition of additional direct funding (at least 250 000 € additional external funding p.a.)

FUNDING 2013	OCCASION/BRIEF DESCRIPTION	FUNDER	DIRECTOR	TIMEFRAME
227 950.00 €	Development of Internet Entrepreneurship Research	Google	Thomas Schildhauer	01.12.2012 – 30.09.2015
20 000.00 €	Support on Project "Internet Policy Review"	E-Plus	Jeanette Hofmann, Wolfgang Schulz	01.10.2012 – 30.06.2013
30 000.00 €	Funding of PhD Candidate "Finance Clinic", integrated in the HIIG Doctoral Programme	KPMG	Thomas Schildhauer	01.07.2013 – 30.06.2016
93 619.25 €	Support on Project "KORSE"	University of Freiburg (BMBF)	Ingolf Pernice	01.09.2013 – 31.01.2016

371 569.25 €

2. Acquisition of additional institutional funding in order to extend the independence of the institute

The existing institutional funding from Google totals 1.5 million euros for 2013. Further funding from Google was successfully extended from 2014 until 2019. The fundraising activies in 2014 will continue to focus on acquiring additional institutional funding to strengthen the financial independence of the institute.

DANKE TESEKKÜR EDERIM **TODA** XIÈXIE **GRAZIE** HVALA **DANKON**
THANK YOU **MAHALO** KIITOS **GRACIAS** DANKIE **MERCI** OBRIGADA
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