Reflect and Act!

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Introduction to the Society of the Query Reader

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In the span of only a few years, search engines such as Google and Bing have become central infrastructure-like elements of the web. Within milliseconds they offer answers to pretty much all of our questions, providing a remarkably effective access point to the ever-growing ocean of information online. As usual for infrastructures, there is a harsh contrast between the importance they have in our daily lives and the attention we pay them. Just as we expect water running from the tap, electricity coming from the plug, and roads to drive on, we take for granted that there are search engines to give us the information we need.

However, search engines are becoming invisible, thereby increasing their implicit power. To counter this tendency, we need to design visibility campaigns to make their influence apparent. This is the main aim of Society of Query and similar initiatives such as Deep Search.[1] Integrated in smart phone interfaces, browsers, apps, and platforms such as YouTube, we take for granted that there is a search bar in close range. Within a remarkably short time range we have familiarized ourselves with the search logic: type, select, click, and move on. The ever-increasing speed we use to search has created a collective 'techno-unconsciousness' from which we have to wake up. This INC Reader is a modest step in this direction.

The rise of mobile devices and connections has increased the infrastructural significance of search engines even further, with a deep impact on our cultures and societies. We carry search technology with us all the time; we use it like an extended memory for factual questions (what was the name again of the author playing Julian Assange in that 2013 biopic? And while we're at it, what year did Wikileaks start again?); we feed them with our existential fears and doubts ('my daughter is overweight, my son is a genius – what should I do?'[2]). But we do not grasp their workings or question the answers they give. We're not in control of our search practices – search engines are in

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1. See Society of the Query project page: http://networkcultures.org/query/; the Deep Search conference page http://world-information.org/wii/deep_search/en and book: Konrad Becker and Felix Stalder (eds) *Deep Search: The Politics of Search beyond Google*. Innsbruck: Studienverlag, 2009.
2. Amanda Marcotte, 'Parents Ask Google If Their Sons Are Geniuses and If Their Daughters Are Fat', *Slate,* 21 January 2014, http://www.slate.com/blogs/xx_factor/2014/01/21/parents_ask_ google_is_my_son_gifted_and_is_my_daughter_overweight.html.

control of us and we readily agree, though mostly unconsciously, to this domination. 'We're citizens, but without rights'[3] in the Society of the Query.

It is of the greatest importance to understand critically that search engine infrastructures are mostly commercial operations, in contrast to the state-owned or at least state-regulated electricity and water infrastructures or road systems. Web search is not just about providing users with the information they are looking for in the most efficient way possible; search engine companies are also driven by the desire to make a profit, and to increase this profit by penetrating ever more areas of our lives and social relationships, predicting our behavior and (information) needs.

With revelations about how user data flow almost directly from companies such as Google to the NSA we seem to be at a crossroads. These insights raise public awareness, leading to a demand for insightful and critical information about the workings of digital technologies such as web search. At the same time there is a growing interest in this subject in fields outside of traditional computer studies – in humanities, history, social sciences, legal sciences, and so on. The time is right to tear apart our common sense of search engines; how to do that exactly remains difficult, however. Just as we don't really know where the water from our taps and the electricity from our plugs come from, and hardly notice the street until it is cut off, we usually do not have much insight into the functionality of web search. It is a black-boxed technology, which means operating a search engine doesn't really require any further knowledge of the technology itself. While previous information systems often demanded a certain level of expertise, modern search engines rather follow the Silicon Valley mantra 'the user is always right'. Since most search engine-providing companies are led by commercial interests, they aim to attract as many users as possible by keeping the entry barriers low. Everyone must be able to use the technology, and when the technology fails to meet the demands of the user, then it must be amended.

In practice, this leads to user interfaces such as Google's, which is as 'neutral' and clean as possible. The user still is required to enter a query in the search bar – at the moment this remains the core interaction between users and search engines. But already today, autocomplete features try to predict what users want to know before they actually formulate their queries. Services such as Google Now even bypass user queries by giving information before you've asked for it: 'From knowing the weather before you start your day, to planning the best route to avoid traffic, or even checking your favorite team's score while they're playing' as the website asserts.[4] Increasing localization and personalization, with the help of encompassing data gained from mobile devices, allow and speed up this development.

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3.   William Gibson, 'Google's Earth', *The New York Times,* 31 August 2010, http://www.nytimes.
      com/2010/09/01/opinion/01gibson.html?ref=todayspaper&_r=0. The quote begins with: 'In
      Google, we are at once the surveilled and the individual retinal cells of the surveillant, however
      many millions of us, constantly if unconsciously participatory. We are part of a post-geographical,
      post-national super-state, one that handily says no to China. Or yes, depending on profit
      considerations and strategy. But we do not participate in Google on that level. We're citizens,
      but without rights.'
4.   See, http://www.google.com/landing/now/#whatisit.

The website lmgtfy.com ('Let me google that for you') performs searches on Google in a video sequence that can be sent to others. The idea: 'LMGTFY is for all those people who find it more convenient to bother you with their question rather than google it for themselves.'[5] Googling is not only a word that made it to a number of dictionaries, it has become a social norm. We are not simply enabled but also *expected* to use the search engine, in school, at home, and at social gatherings. Search engines are more and more intertwined in our lives, while the control we have over them doesn't increase accordingly – rather the opposite. At the same time, much of the internet-related public interest has concentrated on social media. Only with the revelations by Edward Snowden can we see a heightened awareness of the power of media monopolies including Google. However, we also seem to be lost and tired; where can we turn without these platforms? How to find our way on the net (or on the streets without Google Maps, for that matter)? Isn't it too late to change these infrastructures, which seem as solid as a brick road?

Ironically, the impact of search engines seems underestimated. Whether Facebook and Twitter are believed to fuel revolutions or are accused of supporting state surveillance and oppression, hardly anyone will deny their massive societal impact. But search engines – let's face it – are unsexy. They are old (in the pace of internet technology); their appearance is unremarkable; their core is inaccessible and they are taken for granted. But the same characteristics can be taken as arguments for why search engines *should be* at the center of our attention: their age and the fact that they survived all other short-term internet trends proves their significance, while the bland surface and hidden complexity evoke important questions about the problem of their lack of transparency. Because search engines are so taken for granted that we never question them in our daily routines, it is even more important to have a deeper understanding of their functionality and their impact.

Social media, most notably Facebook, have only partly overtaken the predominance of search engines as the 'Age of Internet Empires' map provided by Mark Graham and Stefano De Sabbata shows.[6] The map pictures the world's top sites (based on the rankings by Alexa.com in August 2013) in different countries. While Facebook has gained a considerable share especially in the Arab world, Google still clearly dominates the West. Graham and De Sabbata explain:

> The countries where Google is the most visited website account for half of the entire Internet population, with over one billion people [...] Thanks to the large Internet population of China and South Korea, Baidu is second in this rank, as these two countries account for more than half a billion Internet users, whereas the 50 countries where Facebook is the most visited website account for only about 280 million users, placing the social network website in third position.

Search engines not only remain a backbone of the present internet, but equating of search engines with Google is common and justified in most parts of the world – with striking regional exceptions.

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5. See, http://en.lmgtfy.com.
6. See Mark Graham and Stefano De Sabbata, 'Age of Internet Empires' Map, http://geography.oii. ox.ac.uk/#age-of-internet-empires.

Obviously, that does not mean that we should agree with this equation on any other level than this banal acknowledgement of the factual status quo. 'Search engine' does not equal 'Google', not in the past, and probably – or hopefully – not in the future. Alternatives are possible and must be pursued. A crucial dilemma that any critical analysis of the current situation of web search has to face is the balance between acknowledging the reality of Google's predominance and at the same time not focusing on it too much, because that would miss all opportunities for alternative and fresh thinking, while re-enforcing the criticized situation by reproducing its logic. Fortunately, we are not starting at zero. There have been a number of intellectually stimulating debates that reveal crucial problems of the Society of the Query. It seems necessary and fruitful to sum up some of the central findings in this field of the last decade or two:

1. *Search engines are not neutral:* Although search engine developers often insist that they only provide a neutral tool, it is obvious by now that their products are much more than that. Search engines function as gatekeepers, channeling information by exclusion and inclusion as well as hierarchization. Their algorithms determine what part of the web we get to see and their omnipresence fundamentally shapes our thinking and access to the world. Whatever their bias may look like, it is obvious that man-made decisions are inscribed into the algorithms, leading unavoidably to favoring certain types of information while discriminating against others. Eli Pariser's depiction of the 'filter bubble'[7] is slowly becoming part of our common knowledge and is now being experimentally tested in different academic environments. Whether the filter bubble is as closed and personalized a bubble as Pariser argues, remains to be seen.[8] However, it is clear by now that search results are to some degree subject to personalization, localization, and selection, which makes neutrality or objectivity an illusion.

2. *Googlization is real, and it is a problem:* The highly concentrated (and often even monopoly-like) search engine market intensifies the already significant societal and cultural impact of search technology. The field is in the barely regulated hands of one of the most powerful corporations in the world and its few competitors can hardly challenge Google's overarching supremacy. The tempting offer of seemingly gratis services has apparently led to a point of no return: Google effectively controls access to an unthinkable ocean of data (way beyond its original core competence of search) which is to a good extent crucial for all kinds of aspects of our lives. While we shouldn't forget the pains of searching the web before Google, it is yet another thing to trade our private data for the wealth of this treasure without really thinking about it. As Siva Vaidhyanathan, author of *The Googlization of Everything (and Why We Should Worry)* stated: 'For the last decade we have systematically outsourced our sense of judgment to this one company, we've let this company decide for us what's important and what's true for a large number of questions in our lives.'[9]

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7.   Eli Pariser, *The Filter Bubble: What the Internet Is Hiding from You*, New York: Penguin, 2011.
8.   See for example Pascal Jürgens' talk 'Measuring Personalization: An Experimental Framework for Testing Technological Black Boxes' in which he claims that 'the filter bubble does not exist', Society of the Query #2, Institute of Network Cultures, 12 November 2013, http://networkcultures.org/wpmu/query/2013/11/12/measuring-personalization-an-experimental-framework-for-testing-technological-black-boxes-pascal-jurgens/.
9.   'Short interview with Siva Vaidhyanathan', recorded at Society of the Query #2, 8 November 2013, http://vimeo.com/82099408.

3. *Search engines pose a serious threat to our privacy:* Unavoidably, every query we type into a search engine reveals something about ourselves. In contrast to the mostly intentionally shared information on social media platforms, the data gained from search provides a much more comprehensive profile of its users, including what they don't want to share with anyone. Even the queries typed in the search bar and then deleted again without actually hitting enter are recorded (as is the case on Facebook, too). Modern search engines are multi-purpose rather than specific, so they may gain insights into anything from embarrassing knowledge gaps to secret sexual desires and diseases we may fear to have. Now that the Snowden revelations have shown that this confidential data is not safe in the hands of search engine providers, the threat of it being passed on and misused is all too real – for example to insurance companies or law enforcement.

4. *We don't know how to handle search engines:* While most users feel confident with search engines (simply because they use them every day), they usually don't know much about how they actually function and how to operate them efficiently. There are also rarely any attempts to educate users about this specific form of information retrieval in schools or higher education. Teachers refer to Google as an educational tool without having control over the information their students find and use. Even on a procedural level a certain helplessness in the face of search technology is observable: judges struggle to apply often outdated and unsuitable laws on various legal issues, from copyright and personal rights to competition law. Governmental control is difficult, given the international character of the search market. Political attempts to build a search engine have all failed accordingly.

5. *Search engines are a boost to creative energy and responses*: Let's face it, search engines may not be sexy, but they do give us a lot of joy and knowledge, and spark ideas, research, and great art that wouldn't have been possible just ten or fifteen years ago. Despite the pressing problems, it is clear that search engines enrich our lives and only few of us want to go back to the world before digital search.

Although a number of these findings have been intensively discussed, countless open questions on web search and its impact remain. We hope the Society of the Query Reader will shed light on some of them. This volume of essays follows the successful event held in Amsterdam on 7-8 November 2013. The Society of the Query #2 conference brought together an international group of researchers and artists to reflect on web search and discuss alternatives, art, activism, and to interact with the public.[10] Many of the speakers are represented in this collection and the themes roughly follow those of the event.

Starting with theorizing web search, the foundations of this technology are critically analyzed: How can the dialectic of standardization and individualization be understood? What are the implications of gathering personal information in an attempt to assess our intentions? This foreshadows the politics of search which are addressed in the next section, focusing on Google's domination and potential ways out of it. Here, not only

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10. The conference program can be found as an appendix from page 285 onwards. All talks and blog posts are available through http://networkcultures.org/query.

the omnipresent issues of Googlization are spelled out but also problems of alternative providers are discussed – from technical and economical questions to their underlying ideologies and the challenges of legal regulation. In the third section we take a step back to look at the often neglected history of search. Already centuries ago people used 'search engines' – be they human, a tool, or made of paper. Not only historically speaking is there a world beyond Google, but also geographically. Globalization goes hand in hand with localization, as we can see in the fourth section. We look into the situation in China, where the search engine Baidu provides a whole other picture; the attempts of creating locally adapted search results are critically examined; and the tensions of globally operating search engine providers under national laws are portrayed. The Society of the Query Reader also wants to bring awareness to the epistemological workings of web search engines and the challenges and opportunities they pose for research and education, which are addressed in the fifth section: How can we analyze and archive search engine results for research purposes? What does it actually mean to find knowledge online and how can it be taught? We close this collection with three examples of artistic and associative reflections, which take search as an inspiration and thus reveal the unprecedented wealth and treasure lying at our fingertips.

Our intention is less to find final answers to the overarching challenges imposed by search technology but rather to continue and stimulate a critical debate. The Society of the Query needs to get out of its passive role, and reflect, discuss, and shape the present and future landscape of search. Visit the Society of the Query blog on network-cultures.org/query to watch videos, read articles, and join the mailinglist. Feel free to contact us and we hope to see you in the near future on a next Society of the Query event.

René König and Miriam Rasch
Karlsruhe and Amsterdam, March 2014

References

Becker, Konrad and Felix Stalder (eds). *Deep Search: The Politics of Search beyond Google*. Innsbruck: Studienverlag, 2009.

Gibson, William. 'Google's Earth', *The New York Times,* 31 August 2010, http://www.nytimes. com/2010/09/01/opinion/01gibson.html?ref=todayspaper&_r=0.

Graham, Mark and Stefano De Sabbata. 'Age of Internet Empires' Map, http://geography.oii.ox.ac. uk/#age-of-internet-empires.

Jürgens, Pascal. 'Measuring Personalization: An Experimental Framework for Testing Technological Black Boxes', Society of the Query #2, 12 November 2013, http://networkcultures.org/wpmu/ query/2013/11/12/measuring-personalization-an-experimental-framework-for-testing-technological-black-boxes-pascal-jurgens/.

Marcotte, Amanda. 'Parents Ask Google If Their Sons Are Geniuses and If Their Daughters Are Fat', Slate, 21 January 2014, http://www.slate.com/blogs/xx_factor/2014/01/21/parents_ask_google_is_my_son_gifted_and_is_my_daughter_overweight.html.

Pariser, Eli. *The Filter Bubble: What the Internet Is Hiding from You*, New York: Penguin, 2011.

'Short interview with Siva Vaidhyanathan', recorded at Society of the Query #2, 8 November 2013, http://vimeo.com/82099408.