

Society of the Query #2 Conference report, December 2013

Institute of Network Cultures
Hogeschool van Amsterdam
Rhijnspoorplein 1, 1091 GC Amsterdam
http://www.networkcultures.org

Table of Contents

1. Society of the Query #2	3
Key results:	
Society of the Query blog	
2. Program of Society of the Query #2	5
Thursday, November 7 th 2013	
Friday, November 8	9
Party: I'm Feeling Lucky	14
3. Blog posts	14
Siva Vaidhyanathan on the intimate relationship between state surveilland	e and
corporate dataveillance	
Astrid Mager – Is Small Beautiful? Big Search and its Alternatives	
Dirk Lewandowski: Why We Need an Independent Index of the Web	19
Thomas Petzold Talks about the Search Industry's Five-Percent Gamble	
Min Jiang – Search Without Borders	
Payal Arora – the making of art knowledge via Google Images in rural India	a25
Rebecca Lieberman on the Poetics of Search	27
Anja Groten – The Aesthetics of Power	29
Isabelle Massu – The Great Family of Man	30
Rosa Menkman on resolutions	31
Kylie Jarrett - Search for the Google God: Metaphysics and the Social Ima	ginary of
Search	
Algorithmic governmentality and the end(s) of critique-Antoinette Rouvro	y35
Anton Tantner – human search engines and intelligence offices of the ana	logue
age	36
Book Launch: Ippolita – "The Dark Side of Google"	40
Simon Knight on the Epistemic Context of Search & Assessment	
Geert Lovink talks to Maarten Sprenger	43
Sanne Koevoets - Library Dwelling: Quest and Query Tropes in Narratives	on
Libraries and the Internet	46
Erik Borra and René König Show Google Search Perspectives on 9/11	48
Measuring Personalization: An Experimental Framework for Testing Techr	
Black Boxes-Pascal Jürgens	49
Does Culture Affect Information Diversity? Engin Bozdag	50

1. Society of the Query #2

Project Name: Society of the Query #2. Online search: About 4.720.000.000 results

Submitter: Institute of Network Cultures

Address: Rhijnspoorplein 1, 1091 GC, Amsterdam, The Netherlands

Link: http://networkcultures.org/wpmu/query/

Contact: Miriam Rasch - miriam@networkcultures.org

Location: Openbare Bibliotheek Amsterdam

Design: Studio Inherent

Key results:

- Two days of conference with an art session, a networking party and several international speakers. The conference was held on November 7th and 8th 2013.

- Society of the Query #2 program booklet includes an overview of all the sessions, along with abstracts, and a short biography of each participant and organizer.
- http://networkcultures.org/query the website of the project. The blog was
 updated with search engine research, alternative search engines reviews and,
 in the end, with conference reports from bloggers. It was also the place where
 people were able to buy tickets.
- Recordings of all session and discussions can be found on https://vimeo.com/album/2607652.
- The conference had around 200 visitors in total, excluding speakers, bloggers and organizers.
- Online discussions during and around the Society of the Query event people used Twitter and the #SotQ hashtag to express their thoughts live.
- Several blog posts were written. Next to conference reports, there are also blog posts concerning research, reviews, information about the event.
- New contacts amongst the speakers; the network is enlarged and knowledge is shared.
- Basis for the forthcoming publication Society of the Query Reader.
- An overview of resources can be found at http://networkcultures.org/wpmu/query/resources/.
- The INC online media archive is enlarged, including videos, photos, flyers and posters of the event.

Society of the Query blog

The blog was the main portal for the audience and all updates about the project could be found here. The number of unique visitors peaked just one day before the conference started, on the 6th of November, with 810 unique visits, while the month of November reached over 7300 visits. The blog also functioned as a ticket platform and a digital archive for resources which are stored and accessible to the public.

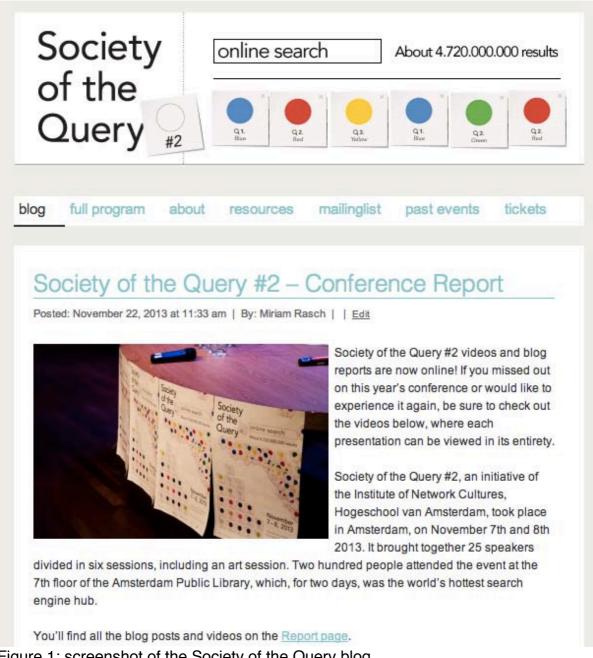


Figure 1: screenshot of the Society of the Query blog

2. Program of Society of the Query #2

The Society of the Query #2 conference took place on the 7th and 8th of November 2013 at the Openbare Bibliotheek Amsterdam (Amsterdam Public Library), Oosterdokskade 143, 1011.

Thursday, November 7th 2013

13:00-15:00 – Session 1 – Google Domination

Even though it is the aim of the Society of the Query to broaden the scope of search beyond Google, it is nonetheless inevitable to pay attention to the dominance of Google in the search engine market – especially from the perspective of the Netherlands, where Google has a market share of around 95%. Despite the growing diversification of Google in terms of revenue, search is still its main source of income, while users still see Google as a free service. Lately the battlefield has shifted to search on mobile phones – could this change or even end Google's domination? What are the implications of the low resistance of the Google monopoly against PRISM? Has the time come for alternative, independent search engines?

Moderator: René König > Siva Vaidhyanathan (US)

The Leviathan and the Cryptopticon: On the Intimate Relationship Between State Surveillance and Corporate Dataveillance

With the steady revelations throughout the summer of 2013 about the United States government's programs and powers to monitor digital communication, mine metadata, and circumvent encryption, it has become clear that corporate habits once devoted to maximizing market share and targeting consumers serves a much larger and more nefarious interest. The culpability and responsibility that companies such as Google, Yahoo, Facebook, Microsoft, and Twitter have in an environment of coercive state tactics will be examined, while proposing strategies that active citizens might pursue to mitigate the dangers that massive state surveillance creates.

> Astrid Mager (AT)

Is Small Really Beautiful? Big Search and its Alternatives

Google can be blamed for its monopolistic position on the search market, its exploitation of user data, its privacy violations, its possible collaboration with the NSA. However, blaming Google is not enough. Rather than being ready-made, Google and its algorithmic ideology are constantly negotiated in society. The ways in which the capitalist spirit gets inscribed in Google's technical Gestalt by way of social practices will be shown, while at the same time looking at alternative styles of search through the lens of ideology. If Google embodies the capitalist ideology what ideology do alternative search engines incorporate? Are there true alternatives to big players or do smaller search engines also buy into commercial practices (e.g. by entering alliances with Google, Bing & co)?

> Dirk Lewandowski (GE)

Why We Need an Independent Index of the Web In recent years, there has been a lively discussion on 'alternative search engines'.

People argue that there is a need for alternative search engines, as there is only one dominant player on the search engine market, and even a large company like Microsoft struggles in establishing its own Web search engine. However, even if an alternative search engine could be financed by a company, a state, or even a larger body like the E.U., this would still be only one alternative. This would for sure be better than nothing, but in our view, it would be even better having lots of alternatives. The key to establishing such alternatives is the search engine index, i.e., the database every search engine is based upon. As an ideal, the index is a complete and current copy of the Web. Only a few companies operate indices that come close to this ideal, and it is very difficult and costly for a company creating a Web index from scratch. Therefore, new developments in the search engine sector that come from smaller companies focus on vertical search like news or blogs, as it is a lot easier to build indices in these areas. Furthermore, companies not having access to large databases of the Web, and therefore not being able to innovate in this area can at least in part explain the current lack of competition in the search engine market. Some might see the major search engines' APIs as a solution. However, these allow only a restricted access to the index, limiting queries by the number of results, and, more importantly, limiting the results to hits that are preselected through the ranking algorithms of the search engine. Thus, an open search engine index is an infrastructure project that should be financed by state or the E.U. Such an index would facilitate competition on the search engine market and allow for lots of smaller search projects to be realized.

15:00-15:15 - Tea break - La Place (OBA)

15:15-16:30 – Session 2 – Search across the border

It is little known in the west that elsewhere in the world Google is not a major player. Can we speak of cultural differences in the architecture of search technology? And in the way users search in for example the rural parts of India? In China there is a separate search engine domain, leading to a different political economy of online search – geopolitical, linguistically and culturally. How can we oppose this to the libertarian, North-American values of Google?

Moderator: Steven Pemberton

> Thomas Petzold (GE)

The Search Industry's Five Percent Gamble

To support five per cent of the world's languages suffices to reach the majority of the world's population. This is the five per cent gamble made by the digital technology industry on global information and knowledge markets. Take Google Search as an example: although it is offered in a wide range of languages, more than ninety-five per cent of the world's languages remain unsupported. A considerable gap remains, which is at best only partially addressed by the industry. Because of the investment costs needed in language support, the five per cent gamble is the direct outcome of the Return on Investment calculated by the industry in the overall context of internationalization and localization. The internationalization process makes sure that a piece of software is built language-neutral (and thus not biased towards any specific language), and the localization process then allows for different kinds of language and region support to be implemented. Recognizing the achievements in this domain, the five per cent gamble marks an important step towards making

information and knowledge searchable and available for people. On the other hand, the benefits delivered and received by different language users differ greatly. The cost-benefit analysis of language support favours either languages that are relatively cheaper to support, say languages using Latin alphabets such as some European languages, or languages that have huge market benefits, say major world languages such as Chinese and Arabic. Clearly, the current trade-off between knowledge diversity and market efficiency is made at the expense of the former, and in favour of the latter. The current state of Internet search is neither satisfactory nor innovative enough to unleash the vast potentials of human knowledge. To improve the situation, we need further social and technical innovations to allow for better knowledge capacity building. This is an opportunity for both private and public players to try innovative social and technical measures to serve more users in more meaningful ways.

> Min Jiang (US)

Search Without Borders? On Borders and Chinese Search Engines Certain media are thought of be distance-defying, unbounded by space. From the invention of paper to the latest telecommunication revolution, geography and borders, we are told, do not matter any more particularly when you can send a message to the other side of the world at the click of a mouse. However, Min Jiang argues the popular depiction of the search engine as a borderless, global medium is an illusion. Search engines have become increasingly re-territorialized driven by various geo-linguistic, political-legal, technological and economic factors that supersede our cosmopolitan impulses. Drawing from previous work on Chinese search engines, Min Jiang will discuss the border politics of Chinese web search, focusing on four aspects: 1) geo-linguistic borders between Chinese Mainland, Hong Kong, Taiwan and other Chinese diasporic regions; 2) political-legal borders erected for web filtering and control purposes; 3) geo-technological borders automated by geo-location technological regimes; and 4) economic borders re-emphasizing 'place' over space and the localization of business. These factors have made web search an increasingly 'parochial' rather than 'cosmopolitan' activity, much to the contrary of our earlier dreams for the 'borderless' medium of search engines. Consequences of search parochialism and possible alternatives are offered to re-imagine what search engines could become.

> Payal Arora (NL)

Chinese Cowboy Paintings as Western Art? The Making of Art Knowledge via Google Images in Rural India

Youth at a rural cybercafé in India browse through Google Images for their school project on 'Western versus Indian' art. Images of cowboy paintings by Chinese artists surface, and gets demarcated as Western painting. While Mona Lisa is selected, Picasso's Les Demoiselles d'Avignon is not. Raja Ravi Varma wins a place in the Indian art portfolio due to his depiction of classic Indian themes. Drawing from eightmonths of fieldwork on digital engagements by youth in rural India, Payal Arora grounds current enthusiasm on e-learning and global knowledge making through a postcolonial lens. As 600,00 villages are currently being connected in India through cybercafés, this serves as an opportunity to delve into how youth in villages are taking to search engines and facilitating online knowledge circulations. Specifically, we investigate what constitutes as 'classic' Indian and Western art in this novel

context. Search tools allow for new opportunities for learning; yet, it is seen that this is subjective to mediations that are historical, political and technical. Informal learning appears to be liberated from formal curriculum; yet, such freedom brings deep and persistent (mis)education. Faith in search engines often triumphs over local teachers, serving as new authorities on art critique. Understandings on art through Google Images are locally designed and not necessarily in line with global curricula on classic art, creating cosmopolitanisms in global education. Overall, it is found that digital learning is creative but not necessarily 'correct' by formal education standards nor always compatible with global understandings.

16:30-17:30 - Session 3 - The Art of Search

Art – whether it's fine arts, video, net art or something else – often reflects on or even is born from the newest developments in technology and from their malfunctions. This session will focus on the art of search and how search engines become artistic with their visual characteristics and features, shaping our cultural knowledge and approach to society.

Moderator: Renée Ridgway

> Rebecca Lieberman

'visually similar imgs'

visually similar imgs is a reflection on the poetics of search. The project encompasses an ongoing series of artist books, animated GIFs, video projects and a browser-based art work. visually similar imgs is an investigation of how digital images move through the internet wilderness; how they are morphed, aggregated, mutated, repossessed, collected, emptied of their contents, and reinvested with new kinds of meaning. The project draws its source material and subject matter (as well as its name) from Google's 'Search by Image', a search product released in 2012 that allows people to search with images instead of written queries; feeding banal images through the search (selfies, cat photos, family snapshots, porn) maps color, pixel density, and other formal elements to create a proliferation of new images that are 'visually similar'. Rebecca Lieberman is interested in the seams and failures of this technology – in those moments where an image of a hand becomes pictures of rifles and an old man's bald head, or some digital noise on a black square is transmuted into the texture of a dress or a night sky.

> Anja Groten – presentation on screen

The Aesthetics of Power

Anja Groten, designer and researcher based in Amsterdam is interested in using external forces during her working process. By designing collective moments, she aims to go into discussion with the public and simultaneously provokes confrontation and the unexpected. During the participatory lecture, queries will be sent out to the public which will invoke the spontaneity of the attendants and will lead to a collective understanding of the request in that particular moment. The search results will be made tangible and transformed into a live design.

> Isabelle Massu

The great family of Man

1950's: first constitutions of family albums, pictures are multiplied, relocated, traded like cards. Tools are democratized, one does not go on holiday without his Kodak,

documenting his small world, while others more professional handle the big one, observe, collect and give away the far away exotic. Photographic exhibitions are increasing, showing it all, the private and the precious as well, humanist photographers set the tone and say the world in picture. In 1955 the Family of Man exhibition organized by the Museum of Modern Art in New York paints a portrait of humanity implying we all belong together. The exhibition is organized around 37 themes: love, birth, work, family, education, children, war and peace ... Today, the family has undoubtedly expanded, but so have appropriate tools of representation. Our daily pain is immortalized on the internet. The distant cousin takes charge of the Really Simple Syndication, the dangerous liaisons. In turn, other family members implement, participate, collaborate to weave the web and feel unstoppable in their illusionary function, to create meaning. Not too isolated from each other, not too close either, we like to be part of that family. We enjoy it, cherish it in search of similarities within this impalpable tribe. Exchanging gift without remorse from screen saver to instant postcard, a difficult choice among 106,118, 222,767 sunsets, 160,669 horses and 239,879 births.

> Rosa Menkman

Beyond Resolution

In the last decade scholars have avidly tried to raise awareness about the importance of understanding the complexities of the media landscape: protocols refer and are encapsulated in other protocols (Galloway 'Protocol', MIT, 2006) and evil media do never exist alone. The media landscape has become more and more compound, or in other words: a 'heterogenous assemblage'. Rules and protocols change data to exist, move and to be reflected upon media through media resolutions. Resolutions are thus ultimately the settlement (a solution – but often at the same time a compromise) between two or more underlying themes or dimensions. Even though media might have never existed on their own, the complexities of its landscape have now moved beyond human recognition. The cost of all of these resolutions within media is that people have become unaware of (most) of them. Have we become bad at constructing our own resolutions, or are we just oblivious to them and their inherent compromises? If you know the question, you most probably already have the answer. It is time to examine how to uncover absent queries.

Friday, November 8

9:30-10:00 - Doors open

10:00-12:15 - Session 4 - Reflections on search

Is it possible to analyze the search engine as a cultural artifact? Does it have a philosophical agenda and how can we read it? Search is often overlooked as an important part in the fast changing field of knowledge production. It is only dealt with in a mathematical and statistical fashion or with a focus on its economic significance as a tool of corporate power. But search did not commence in the late 90s – it has been around for centuries. It's important to stress the media-archeological approach, since the history of search, digital or analogue, offers many insights into its cultural

meaning.

Moderation: Geert Lovink

> Kylie Jarett (IRE)

Search for the Google God: Metaphysics and the Social Imaginary of Search
To understand the history of search it is important to do more than document a series
of technical developments and the rise and fall of particular economic entities. It is
also about understanding the underlying social imaginary that has animated the
political, economic and technological changes through which search has evolved.
Underpinning the history of search is a fundamental desire for a unifying
metaphysical entity that can render the world comprehensible. It is in the promise of
providing such a technology that Google and its 'mind-reading' search algorithms
emerge as powerful actors. This discussion will briefly trace the metaphysical desires
articulated in historical information management technologies, as well as specifying
how Google relates to the contemporary desire for a universal, but individualized,
knowledge system.

> Antoinette Rouvroy (BE)

Algorithmic governmentality and the end(s) of critique

Algorithmic personalization is characterised primarily by the two following movements: a) dissipation of all forms of transcendent 'scale', 'benchmark', or hierarchy, in favour of an immanent normativity evolving in real time; b) avoidance of any confrontation with individuals (meaning-making subjects) whose opportunities for subjectivation have become increasingly scarce. This dual movement is the consequence of the focus on relations rather than substances in contemporary statistics or data mining. To what extent are these two aspects of the 'algorithmic personalization' – emancipatory as they may appear with regard to 'old' hierarchies and with regard to 'old' conceptions of the subject as a stable, unitary entity conducive to new processes of individuation? Simondon and Deleuze-Guattari show that the possibility of becoming and of processes of individuation through relations necessarily require disparities – a heterogeneity of scales, a multiplicity of regimes of existence that algorithmic personalization is continuously stifling. Algorithmic personalization, folding up individuation processes on the individual monad, tends to foreclose the emancipatory perspectives of these philosophers. In the 'big data era', the goal of individual and collective individuation is inseparable from an epistemic and semiotic critique of the algorithmic production of what counts as real.

> Anton Tantner (AT)

Towards a History of Search in the Analogue Age: Human Search Engines and Intelligence Offices

Problems that haunt us today such as privacy issues, poor observance of the secrecy of registered data and government use of these services were also relevant in early modern and modern times that knew 'human search engines' such as gobetweens, servants and concierges, and institutions such as intelligence offices, bureaux d'adresse or question offices. By focusing on these two types of 'analogue search engines' Anton Tantner wants to stress that an historical approach to the 'prehistory' of search engines can be useful in reflecting the current conflicts that are aroused by companies such as Google.

12:15-12:30 – Book launch The Dark Side of Google by Ippolita (IT)

The Dark Side of Google by Italian writers collective Ippolita offers a thorough, serious analysis of what's behind the universe of Google and the metadata industry. Google has been a master at taking advantage of our need for simplicity. We sit before a colossus, an incredibly pervasive system of managing knowledge, comprising aggressive marketing and shrewd management of its own image, and the propagation of highly configurable interfaces that are still implacably recognizable. There has also been the cooptation of the methods for developing Free Software, the use of futuristic systems for gathering and storing data. What lies behind the most consulted search engine in the world? First published in Italian in 2007, the INC presents the revised and updated English edition in the series Theory on Demand #13.

12:30-13:30 - Lunch

13:30-15:15 - Session 5 - Search in context

There is a long-term cultural shift in trust happening, away from the library, the book store, even the school towards Google's algorithms. What does that mean? How are search engines used in today's classrooms and do teachers have enough critical understanding of what it means to hand over authority? We think we find more and in a faster way, while we might actually find less or useless information. The way we search is related to the way we see the world – how do we learn to operate in this context?

Moderator: Jelte Timmer

> Simon Knight (UK)

Finding Knowledge: What it Means to 'Know' in the Age of Search In this talk, Simon Knight invites the audience to consider their own educational experiences, and the nature of their access to external resources in examinations and other assessments. While some may have experienced open book or take home exams, these are certainly not commonplace. Denmark - which at school and university level has permitted some access to the internet during exams – thus stands in stark contrast to many people's experience. There is a discordance here; on the one hand, the ubiquity of the 'course book' is in decline, and neither teachers or students find being sent to a single pre-moderated text acceptable now. Yet on the other hand, there is a nervousness about these new technologies in most countries and their suitability for educational purposes. This is perhaps in part due to concerns around the suitability of search engines as 'epistemic tools' – as informants that can reliably give us information. There are two sides to this issue, the biases and inadequacies of both the tools, and the users. This talk will discuss some search engine features within that framing of 'epistemic tools', highlighting why Simon Knight thinks it is a useful consideration, and its particular implication for educational contexts.

> Sanne Koevoets (NL)

Library Dwelling: Quest and Query Tropes in Narratives on Libraries and the Internet In the cultural imaginary the library stands as a symbol of the modernist quest for universal, objective knowledge. The internet and the library have for a long time been used as metaphors for one another. Library theories have for a long time described

the library as a network of knowledge, whereas early utopian writing on the internet presented this new technology as the final realization of the 'universal library'. Both the library and the internet have been described, represented, and narrated in ways that bely underlying assumptions as to how knowledge can be 'found' or 'discovered' in spaces of knowledge. But although both involve technological systems of order. discipline, and control, this metaphorical slippage obscures how different systems of indexing and ordering privilege different ways of searching for and engaging with knowledge. This presentation will engage with the narrative construction of the internet as a Universal Library in popular culture, and show that while traditional library narratives (Borges, Eco) were aimed towards unveiling the chaos behind the semblance of order, utopian internet as-UL (Langford, Thiem) narratives revel in the semblance of chaos without revealing the underlying systems of control. The narrative trope of the library Quest, in other words, served to provide the hero with the insight that knowledge exists in an impenetrable labyrinth. The narrative trope of the Query, on the other hand, presents that insight as fact, without revealing the underlying systems of control.

Interview Maarten Sprenger (NL)

Maarten Sprenger is the author of a recently published book for children and adults about searching for valuable information online (Slim zoeken op internet). He has extended experience in teaching about online search and also maintains a search engine especially for children: 8-12.info. He will be talking about his recent projects with Geert Lovink.

15:15-15:45 - Tea Break

15:45-17:30 - Session 6 - The Filter Bubble Show

Since Eli Pariser's influential book *The Filter Bubble* appeared in 2011, a range of researchers have empirically tried to validate or debunk the proposition of the filter bubble. Is it truly so that the person sitting next to you gets a different search result while using in the same keywords? What do you actually see when you type '9/11' in the Google autocomplete search bar in Baghdad and in New York? What are the long-term effects of personalization and localization and their tendency to a 'relative truth'? We need to find a way to take our Twitter, Facebook and search engine profiles to burst the bubble and understand society.

Moderator: Miriam Rasch

> Erik Borra (NL) en René König (GE)

Googling 9/11: The Perspectives of a Search Engine on a Global Event When one searches for 9/11 there are numerous aspects which the query can point to: one may want to locate books or movies about the attacks of 11 September 2011 and its implications, inquire about the 9/11 commission, pay a visit to the 9/11 memorial museum in New York etc. As this event had broad cultural and political implications, many diverse perspectives exist. For example, by insinuating that 9/11 was an 'inside job' by the US government, the so-called '9/11 Truth Movement' has provided a fairly popular account which vastly contradicts the mainstream version. Search engines need to determine which ten sites to return as the top results for any query. As so many people rely on search on a daily basis it thus becomes interesting to study which results are deemed most important for specific queries. We stored the

Google results for the query '9/11' for over five years. We then identified the types of sites returned (are these government sites, commemoration sites, sites providing alternative explanations, etcetera) and investigate their ranking over time. We further inquire which kinds of information are available by doing a historical content analysis of these sites. Last but not least, we compare Google's query suggestions for 9/11 in different countries. We are thus able to show how Google represents a complex issue such as 9/11 over time.

> Pascal Jürgens (GE)

Measuring Personalization: An Experimental Framework for Testing Technological Black Boxes

Search engines vastly enhance people's daily lives by making information more accessible. At the same time, they harbor an enormous potential for influencing users. Personalized search results further expand this potential because they explicitly aim at maximizing the relevance of delivered content with regard to selection decisions. Despite their relevance, these technologies have rarely been subject to social scientific scrutiny – mainly because they operate as black boxes and their effects can only be observed in the field, where confounding variables abound. Building on a method developed by Feuz, Fuller, and Stalder, the goal is to create synthetic user profiles and stimulate personalization. By programmatically simulating realistic user behavior, this method performs hypothesis tests against unknown algorithms such as Google's personalization. Our results indicate that although personalization of search results does occur, its effects (as of now) are too weak to produce a true 'Filter Bubble' in which two users receive truly distinct content.

> Engin Bozdag (NL)

Does Culture Affect Information Diversity? An Empirical Study of Information Diversity for Dutch and Turkish Twitter Users

Some authors argue that social media can cause citizens to be ill informed about current events and may lead citizens to have increasingly idiosyncratic perceptions about the importance of current events and political issues. This might occur because online services can implicitly filter information in order improve accuracy at the expense of serendipity. Users can also themselves explicitly personalize their incoming feed and political groupings and fragmentation may occur where users follow only like minded users. This might lead to so-called 'echo chambers' or 'filter bubbles' in which users get to see only opinions that they agree with, and information from the sources they 'liked' before. Excessive personalization may lead to never seeing the other side of an argument and thus fostering an ill informed political discourse. Implicit personalization may lead to an automatic cyberbalkanization, an unhealthy distaste for the unfamiliar. While these dangers are highlighted by several authors, few empirical studies exist that actually studies opinion diversity in social networks. In this talk, Engin Bozdag first provides two different norms to evaluate information diversity: reflection and openness. Later, he discusses the results of his recent empirical study to see whether filter bubble occurs in Twitter, for Dutch and Turkish users.

Party: I'm Feeling Lucky

Friday November 8, 2013, 21.00 – late... Roest Amsterdam, with visuals by Rosa Menkman

3. Blog posts

The blog has been periodically updated with relevant posts in the run up to the conference, while conference reports have been published by a team of 8 bloggers after the conference. Research posts have been written by Vicentiu Dinga, while the reports were written by Irina Enache, Marta Burugorri, Catalina lorga, Stefania Bercu, Maya Livio, Katia Truijen, Philip Anderson and Ihab Khiri.

All conference reports from the Society of the Query are in English and are listed below. Photos are all made by Martin Risseeuw.

Session 1: Google Domination

Siva Vaidhyanathan on the intimate relationship between state surveillance and corporate dataveillance

Posted by Katia Truijen

Society of the Query #2 kicks off with a mind-boggling presentation by Siva Vaidhyanathan, author of The Googlization of Everything. With the steady revelations throughout the summer of 2013 about the United States government's programs and powers to monitor digital communication, mine metadata, and circumvent encryption, it has become clear that corporate habits once devoted to maximizing market share and targeting consumers serves a much larger and more nefarious interest. According to Siva Vaidhyanathan, the relation between governments and companies has been very interesting subject in the past few weeks. Let's take a look at the company that decides what matters on the Web: Google.

Google seems to read our minds. It knows a tremendous amount about us, Vaidhyanathan states. From the perspective of Google, we are not supposed to understand algorithms. All we have is a rough idea of how a page is ranked more high than others.



Beside that, Google is in a process of change constantly. Almost every year, there are substantial changes made. So every time that we try to get a sense of what Google is doing, it eludes us. A social science about search is therefore almost impossible. Every experiment counts for one day; Google remains a black box for us. In the meantime, Google tries to become the operating system of our lives. Their long term interests lie in wearable devices like data driven and data managed objects and clothes. Google, Facebook and Apple are winning this game in smart devices. While Google is already the operating system of the Web, it wants to extend this further. On the Web, Google decides what matters. It decides on what we understand to be true, important and relevant. The dominant position of Google can be explained by the massive datasets that they have been capturing for decades already. It is not about their algorithm, but about the data. In fact, Google has more than a decade of record of our dreams, our desired and nightmares. It is able to read our minds.

It is incredible how much we have outsourced to one company. Their dominant position will remain as long as the circumstances stay somewhat the same. The mission statement of Google is tremendously audacious, namely 'to organize the world's information and make it universally accesible'. Apparently they have the licence to do so. Although Google creates friction with projects like Google Streetview, they always get away with it. According to Siva Vaidhyanathan, this has to do with what he calls *Corporate Social Responsibility*. Companies like Google have a firm believe that what they do is best for the world, and make this explicit. This will be the subject of the upocoming book of Siva Vaidhyanathan. The purpose of companies like Google is to serve multiple stakeholders and they are concerned beyond price and quality.



In fact, Google has been the most instrumental surveillance in the history of the world, with us volunteering information. Since June this year we know because of the <u>leaks by Edward Snowden</u>, that there is a massive surveillance by the United States National Security Agency. All phone records are subject to analysis, they are tracking GPS signals and there is a pervasive survaillance of political leaders of Germany, France etcetera. Google is somehow a victim of this agency. They released this statement:

"Google cares deeply about the security of our users' data. We disclose user data to government in accordance with the law, and we review all such requests carefully. From time to time, people allege that we have created a government 'back door' into our systems, but Google does not have a backdoor for the government to access private user data. ... [A]ny suggestion that Google is disclosing information about our users' Internet activity on such a scale is completely false."

Siva Vaidhyanathan emphasizes that when you Google "Google cares deeply", you get: *About 14,100,000 results (0.38 seconds)*

It is interesting when you read the statements by Eric Schmidt, former CEO of Google. In 2010 he declared the following about Google: "We know where you are. We know where you've been. We can more or less know what you're thinking about." (2010). In reaction to the leaks by Snowden, he stated: The real danger [from] the publicity about all of this is that other countries will begin to put very serious encryption—we use the term 'balkanization' in general—to essentially split the Internet and that the Internet's going to be much more country specific. That would be a very bad thing, it would really break the way the Internet works, and I think that's what I worry about." (2013)

"There's been spying for years, there's been surveillance for years, and so forth, I'm not going to pass judgment on that, it's the nature of our society." (2013)

After MUSCULAR – software that collects data from Google and Yahoo – was revealed, Schmidt was actually shocked: "I was shocked that the NSA would do this – perhaps a violation of law but certainly a violation of mission," Schmidt told CNN. "This is clearly an overstep." (November 2013)

Apparently, the NSA has managed to tap into highly encrypted documents. According to Siva Vaidhyanathan we are just starting to learn about these relationships between state surveillance and corporate dataveillance. We should investigate how power is flowing here.

After the presentation, a member of the audience asks why we should really care about *Googlization*. Siva Vaidhyanathan answers that the level of dataveillance that one company has, entails that there is a significant risk. Moreover, we do not know what we are *not* finding, which is very important. There is no short term problem with Google, it works well most of the time. But what is fundamental, is that Google is something we should understand better. We should become smarter users, and look for alternatives. There are many reasons to encourage diversity in our media ecosystem.

Astrid Mager – Is Small Beautiful? Big Search and its Alternatives

Posted by Marta Burugorri

In this first session Astrid Meger -Is Small Really Beautiful? Big Search and its alternatives- tells us about search engines, pointing out that Google is not the only search engine that is using personal data for commercial interests, or for instance, collaborating with the NSA. She holds that we shouldn't blame only Google as there are many other factors involved, but proposes us several alternatives and explains their characteristics.

"Google dominance is not external from society, but internal, Google is something we create all together". It is important to keep critizing citicizing surveillance, not only blaming Google butalso researching on the power relations that are involved in the construction of search engines. Astrid holds that capitalism is making profit of our networks and algorithms. The users are interested in finding the most convenient information, and the search engines are very good at this. However, what we shouldn't forget is that there are economic relations in this flow of data between providers and users. Content providers and users collaborate together to create Google's business model. Indeed, Google is the great mirror of the capitalist society in which we live in



In this sense, there is a rise on critical debates about data protection, renegotiation of technology... Astrid gives several examples as alternatives to Google, especially those ones that have a strong ideological stand. She shows the example of duckduckgo.com, a search engine that for instance uses this slogan: "Google tracks you. We don't". Duckduckgo is supposed to be a search engine that does not filter personal data, a search engine that respects privacy, a real alternative for data collecting. The principle of privacy as the ideological basis of this alternative to Google. Because privacy, as Astrid holds, it is a civil right, something essential for the constructions of democratic societies. DuckDuckGo uses more than 100 search engines and sources, both commercial and non-commercial, including Wikipedia and other crowd-sourced sites, but also Bing, Yahoo! (displaying Bing results) and Yandex. That means that Duckduckgo.com is finally dependant on business parties, that is to say, it doesn't use itself filters but uses other search engines that certainly do. (It additionally runs its own web crawler called DuckDuckBot, but its index is rather small).

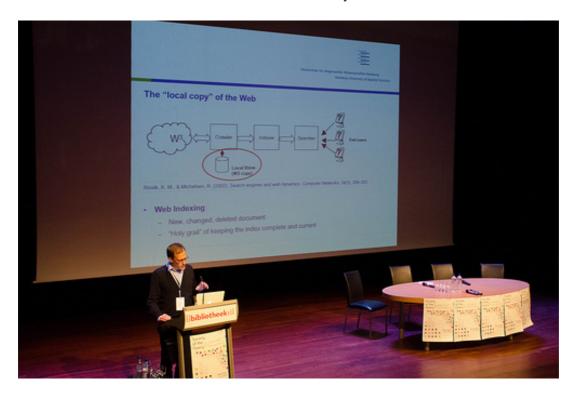
Another alternative she explains is ECOSIA. ECOSIA diplays solely results from Bing and it supports ecological projects. ECOSIA donates at least 80% of its income to a tree plating program in Brazil. Basically, their ideology and business is based on this, and moreover, it runs on green power. Another alternative she suggests is WolframAlpha.com, she calls it the "Knowledge Engine". WilframAlpha.com is devoted itself to the scientific field and it really tries to give the users great answers. Nevertheless, WolframAlpha.com is a commercial tool because it uses commercials in order to have free search, or allows you the possibility to pay monthly and have no ads. We may say it is more a software rather than a search engine. But the great search engine she proposes is YaCy. YaCy tries to provide decentralized search, it is a free software and according to their website they should be totally transparent. In contrast to all other search engines, it really fits with the idea of freedom of information and ideology embedded in technology. YaCy is the best alternative in both technical and ideological level.

However, Astrid notes that big search engines such as Google have lot of experience managing data and they have a big infrastructure as well. Will be then alternatives possible and successful? As Astrid holds, maybe it's time to attract engineers and get more people involved and concerned about alternatives that respect our privacy.

Dirk Lewandowski: Why We Need an Independent Index of the Web

Posted by Serena Westra

How can we create real alternative search engines? German professor Dirk Lewandowski spoke as third speaker in the session 'Google Domination'. He argues that we need an independent index of the web. "We don't need publicly funded search engines. Instead, we need publicly funded search index." Why? He argues that with an index we can do much more than just web search.



A search engine index collects, parses, and stores data to facilitate fast and accurate information retrieval. It is a local copy of the web; sarch engines create direct replicas of documents. This representation includes more information than just the text: information about the author, the length, title, keywords, decay, date, pagerank etc. are also stored. The representation of a website on a search engine does not always match the original page and Google's copy is often lacking newly added information. It is impossible to be always up-to date, yet a local and up to date copy of the web is the 'holy grail' to create alternative search engines. However, this is easy established.

At this moment Google dominates the market and holds 90% of search requests. Therefore, users rely on Google's networks of ordering results and for Google's

method of collecting data. This is problematic since Google is a corporate company and the way the engine works is not transparent or clear to it's users. Despite this, there has been no real alternative for Google; even big companies like Microsoft struggle in establishing its own web search engine. Moreover, the alternatives that do exist are often simply other user interfaces to Google.

There are some alternative search engines, like start-up DuckDuckGo. They use the Partner model: "Real" search engines providers like Google or Bing operate their own search engines but also provide their search results to providers. They can receive income by ads and revenue sharing. All the major web portals have now embraced this model. This model thins out competition in the search engine industry. Lewandowski sees four area's of classification in alternative search engines:

- 1. All those alternatives that are are not Google. He also calls this Google Killers.
- 2. Alternatives that are not perceived as alternatives because they almost show the same results as Google. For the users there is no need to switch to this engine because they are not radically different, e.g. Bing.
- 3. Engines with an explicit position of alternative to Google, e.g. Skeekport.
- 4. New approaches to search, or "real alternatives". Unfortunately they all have in common that they don't play a role in the market share.



What is a good idea when it comes to alternatives then? A single, collaborative European alternative search engine is a bad idea according to Lewandowski. He is afraid this would fail. It is tricky to make only one big alternative. A single element could be unappreciated or not functioning, like an unappealing design, and the whole project would fail. This is problematic since the building of a new index is costly and there are hardly any candidates with the natural resources to fund this. Hence, there must be a way to enable multiple alternative search engines so the money is not lost. As a solution, Lewandowski says we need to focus on building an alternative index that provides us with multiple options for search engines. Users should have the

choice between different worldviews, which originate as a product of algorithm-based search result generation. And with multiple views, Lewandowski doesn't just mean 3 or 4. "We need to create the conditions that make it possible for individuals, companies and institutions to create their own search engine." Fair competition would be the result.

The project should be an index of the web that can be accessed under fair conditions by everyone for low cost. For larger amounts of data the user will have to pay. These search engines do not have to be only web wide engines, e.g. libraries could do a lot with the data of the web. There are a lot of advantages to an independent index machine. For example, it motivates companies to create their own search applications and we can go way beyond search, and perform analytics on web data. However, this project needs a lot of funding and cannot be supported by one country alone. Who would operate and fund the index? Lewandowski imagines it should become a pan European initiative. The question now is: who will operate this?

Session 2: Search Across the Border

Thomas Petzold Talks about the Search Industry's Five-Percent Gamble

Posted by Catalina lorga

Thomas Petzold started the second session of Society of the Query #2, 'Search Across the Border', on a more positive tone as he gave kudos to the search engine. He commended it for still being a great tool, one that has had a huge impact on not only the collective memory of our species, but also on how we collaborate when trying to solve problems.



However, when talking about languages and search, things are looking a bit grim.

Out of the world's approximately 6000 living languages, 95 percent have fewer than 1 millions speakers. Only 5 percent have more than 1 million speakers, while 1 percent of languages are spoken by more than 10 million people. Google only supports 5 percent of the world's languages and has a huge preference for the most spoken ones: 40 percent of the languages it does support have more than 10 million speakers, 90 percent more than 1 million and only 10 percent fewer than 1 million speakers.

It would thus appear that Google figured out the best way to achieve a maximum return on investment: by supporting 5 percent of the world's languages, the company has managed to reach more than 5 billion people.

After stating the facts, Petzold took the audience on a storytelling journey and invited those present – by making use of lively illustrations – to imagine a scenario when they are travelling in a pristine, uninhabited landscape and their car breaks down. As they start to panic about basic needs, such as food and water, the obvious thought pops into mind: "I'll Google it!" However, if no local information is stored, the stranded travellers would only get irrelevant results because no knowledge from the people who live there is stored in the cloud. In another, somewhat similar scenario, a hunter accidentally breaks the rules when failing to understand – or translate with Google's help – a local sign that reads "No hunting!"

Going back to his premise, Petzold stated that it becomes evident why the five-percent gamble actually matters. The benefits delivered and received by different language users differ greatly. For instance, the cost-benefit analysis of language favours either languages that are cheaper to support, such as Latin-alphabet based European languages and those with significant market benefits, such as Chinese and Arabic. He argued that the current tradeoff between knowledge diversity and market efficiency is being made at the expense of the former and in favour of the latter. Petzold proposed a solution to this unfair tradeoff, namely to involve all stakeholders – everyone who has an interest in providing local knowledge. First, we need to understand what changes these stakeholders would experience and would entail collaboration between private and public institutions. Also, the stories of change need to be told because people need to hear what value is created through the promotion of local knowledge.

To conclude, Petzold claimed that the current state of Internet search does not cater to the vast potential of human knowledge and that we are in dire need of further social and technical innovations that can serve more users in more meaningful ways.

Min Jiang – Search Without Borders

Posted by Serena Westra

The popular depiction of the search engine as a borderless, global medium is an illusion, says Min Jiang. Search engines have become increasingly re-territorialized driven by several geo-graphical, political-legal, technological and economical factors that supersede our cosmopolitan impulses. As a native Chinese who has been doing

research in the States, Dr. Min Jiang is the perfect speaker to talk about online search in China. In her presentation 'Search Without Borders' she shows that free search in China is not only limited by the so called Great Firewall of China, but also by several factors from within the country itself.



Jiang starts her presentation by introducing her former workplace: the predominant state television broadcaster of China called <u>China Central Television</u>. It happens to be the case that this Chinese news agency uses exactly the same abbreviation as the infamous surveillance cameras in England: CCTV. Jiang finds it relevant to see how search cameras are somehow similar to these camera's and news programs. Are we really aware of the borders of search? It might be strange to talk about it if you do not see these borders. Therefore, addressing these borders is vital.

<u>Nicolas Negroponte</u> once prophesied that after exposure to the Internet the state would dissolve like a mothball. In contrast to this, Jiang argues that now, about two decades later, the state is pretty solid and not going away. The nationalization of telecommunication services is becoming more and more a reality. Ironically, Jiang points out that national states have never been more important, e.g. think of the <u>Snowden case</u>.

China has 391 million Internet users, of which 60% is under the age of 30. In the past 15 years the Internet took off in China and it still has a lot of room for growth. Nevertheless, there are four types of borders Chinese users have to deal with. Borders are often messy and porous when created digitally, says Jiang. How can we trespass them?

In terms of language, Jiang argues that the Internet language has changed. While English used to be the most used language online, the Chinese language is taking a

more prominent place now. Actually, the Chinese language is currently the second biggest language on the Internet after English.

This has great effect on the use of Internet, since only about 100.000 people speak proper English in China according to Min Jiang. This is a really small number when considering that this is only 1/7th of the Amsterdam population.



There are many different dialects and languages in China. Users are constrained by this since they often have limited understanding of other dialects and writings so their source to information is limited. Moreover, search results differ between these various dialects and writings. A way to circumvent this problem, voice search and translation are suggested. Yeeyan for example is a volunteering translating organization in China. The main goal is: can we specialize search to enable people to talk? Jiang says we need to do more research about this.

Secondly, there are some political-legal borders that constrain the search engine as being a global, borderless medium. These borders are erected for control purposes and web filtering. There are two versions of Internet in China with two dominant players: Google and Baidu. However, Baidu gives quite biased results and there are government related sources as well. In terms of search from the mainland of China, Baidu has filtered a lot of search to start with.

The Great Firewall of China does a lot of censoring. Nevertheless, not the Great Firewall is the biggest problem, but the internal outsourced material. The Firewall does perform censorship, but what does it matter if Chinese citizens can access American news when they are not able to understand it? Although the firewall prevents a lot of Chinese material to mainland China, there are more borders to be looked at.



Third, some borders are automated by geo-location technological regimes. Localization is becoming more important. What if we want to diverse content in terms of localization? How can we balance localization and globalization at the same time by search? This is a field of search that will grow in the near future and according to Jiang a lot of research needs to be done.

This localization also has impact in the economical side of search engines. In terms of ad spending, a lot of money already goes to local search. This will increase, predicts Jiang. Hence, we need more focus on localized search.

We have always thought of the Internet as a public sphere. But by now public space in the Internet has been localized and territorized. This raises a lot of questions according to Min Jiang. What do we value: local content? Global content? We are not provided a choice. What about access? Can somebody do research tracking? What about choices in contexts? Why don't search engines give us choices and let us choose what we want?

Min Jiang concludes with expressing her wish that we can all think more about search and borders. What we want to find, will ultimately be the biggest border is her prediction.

Payal Arora – the making of art knowledge via Google Images in rural India

Posted by Irina Enache

Payal Arora is an Assistant Professor in the Department of Media and Communication – Faculty of History, Culture and Communication at Rotterdam

Erasmus University. With a research interest in digital learning, she contributed to the conference with a very interesting (albeit also worrying) study on the search results Google provides to Indian pupils in rural villages and how they are used uncritically for educational purposes.



Payal Arora carried an 8 month long ethnographic research in the village of Almora (roughly 56,000 residents), a study which she published in her book "Dot Com Mantra: Social computing in the Central Himalayas". There she has been assisting pupils in their after-school projects. The place where these projects are carried is in the village's cybercafe, the only place that has internet access. Cyber cafe's are a governmental initiative in bridging the so called digital divide and thus providing high speed broadband to the poorer parts of the country – it costs about 50 cents for an hour; it's a cheaper alternative to the One Laptop per Child initiative.

The specific project she detailed at the conference was one in which students had to research Western versus Indian art via Google as a search engine. The typical process of doing so often involved having the owners of the cyber cafe do the browsing and clicking – in other words, assisting. Arora decided to take up this role herself. Her students first asked her to query "Western Art". The search results in Google Images revealed Chinese artworks – drawings of cowboys – which dominated the first several pages; they were quickly copy-pasted in the students' paper as 'western". When Mona Lisa showed up in results, it is immediately taken as an example, albeit with no argument other than personal aesthetic belief of the students. The same type of "argument" vets out Picasso's Les Demoiselles d'Avignon as "horrible". Even more interestingly, when looking up "Indian art", religious paintings are also vetted out, as the belief that Indian art can only be secular art prevails. Raja Ravi Varma – a well known Indian painter – also dominates the results and is chosen solely on the basis of its female depiction's "pretty face".



The students, who need to turn in a paper with an analysis between Western and Indian paintings, focus on a literal analysis of the image ("too fat", "colours are nice", "her face looks ugly"), thus demonstrating a purely personal and often trivial and naive appreciation of art. There is no opportunity for critique, neither with the cybercafe's usual assistants nor with the teachers in the classroom. It is the latter who find themselves subject to the new authority of search engines like Google or encyclopedias like Wikipedia.

Search engines are extremely powerful in these rural communities because they make up for the lack of books, libraries, trained teachers. They become the new experts in education, but they also open the doors for plagiarism, as Payal stressed out how quickly students learn to use search engines as ways to cheat.

With the Ministry of Technology of Information in India investing massively in these type of initiatives such as cyber cafes, it is important to observe the political agenda in respect to influencing education, argues Payal. Is this efficient since technology can never supplement human knowledge (teachers) and instead it is used to validate not only biased results like the ones mentioned above, but also uncritical use of results received?

Session 3: The Art of Search

Rebecca Lieberman on the Poetics of Search

Posted by Maya Livio

"Demented Panda and Koki wandered through the small plot of land. Except it was no longer only a small plot of land, but also an enormous food court. Except it wasn't just a food court, but also an outdoor rehearsal space lent to artists by a small nonprofit arts organization. Except it wasn't a rehearsal space, but a soundstage for

gigantic live entertainments. Except it wasn't a soundstage, but a fake Baghdadi neighborhood staged for counterinsurgency training exercises..."

—Excerpt from *An Army of Lovers* by Juliana Spahr and David Buuck

Thus began Rebecca Lieberman's presentation in the 'Art of Search' panel at the second Society of the Query conference, introducing and setting a foundation for how to think about her *visually similar imgs* project. Her piece borrows its name and concept from Google's Search by Image tool, a feature introduced in 2012 to allow users to reverse-search images by querying Google using visual rather than textual data. When Google is unable to locate an exact match for the image, it utilizes that image's "visual DNA" – color, composition, pixel density, and other factors – to serve up a proliferation of aesthetically similar images. According to Lieberman, Google places the image into a grouping of related images with a "shared formal vocabulary," bringing together disparate contents and contexts into the same space.



Lieberman's project consists of several interrelated components in a variety of media, including a series of artist books, a browser-based work meant to situate the images in their native habitat, and a series of looped videos, all composed of images mined from Google. After feeding the Search by Image tool banal images such as cat photos and selfies, Lieberman takes the results she finds to be of interest and assembles them together in a sequence all her own. She describes the process as being like a game of telephone or a stream of consciousness, stitching images together in what she envisions to be a visual poem.

Lieberman uses both literal and metaphorical connections to influence her choices (which she exemplified by showing an image of a soap opera star in a bathtub followed by one of a rhinoceros bathing in mud), and so her selections are filtered through her own subjectivity rather than being what she calls a "straightforward quotation." Thus, the project taps into the poetic potentialities of search, and she sees Google's tool as a "gift," allowing us "a new way of reading pictures."

By selecting the images and ordering them, Lieberman can be said to reclaim authorship from or at least share authorship with Google. She relates this investigation of authorship and appropriation to the art historical lineage of works asking similar questions, such as the paintings of Ed Ruscha, and also to contemporary Internet practices such as re-blogging and pinning.

Lieberman's interest lies particularly in the meaning generated by the interstices, how each viewer may make different interpretations based on what appears to be missing between the images in sequence, as in line breaks in poetry or cuts between the scenes of a film. Without linear narrative, meaning accumulates through the assemblage of images and the spaces between them. Lieberman's intent is then to investigate how meaning may shift and transform as images travel across the Internet.

Anja Groten – The Aesthetics of Power

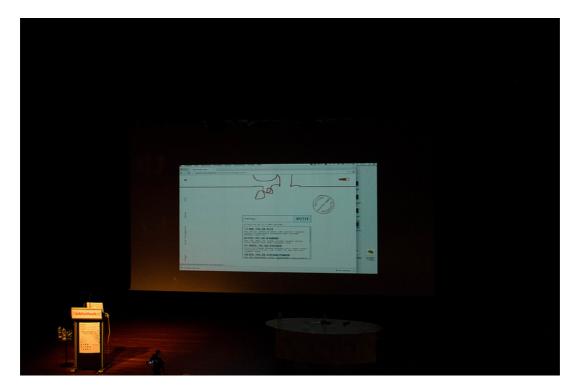
Posted by Marta Burugorri

In this third session <u>Anja Groten</u> presents "The aesthetics of power". Unfortunately Anja Groten was not present at the conference, instead, she replaced her physical presence with an audiovisual presentation. Anja Groten is a designer and researcher based in Amsterdam who presents for Society of the Query her project called "<u>Machina recordatio</u>". Machina Recordatio gives voice to hose excluded from society: the elderly. Machina Recordatio is a search engine where you can search for topics or key words concerning relationship issues, or everyday problems, professional decisions... All that questions that can be only answered by the voices of experience. Certainly, it gives responses by the experts of life; it is a wisdom machine.



The idea of this project emerged from the necessity to give voice to individual experience. As Anja Goroten holds, knowledge nowadays is a fast available resource

for everyone. Nonetheless, the wisdom that was before passed on the coexistence of the family, is now somehow missing because of the new technologies. This experience of the "old" people could help us with issues that have not changed along time, such as the fear of life, the death, the future, facts as be abandoned by your partner... is that different from today?



Machina Recordatio has interviewed seniors in the recent months in Hamburg, Berlin and Dresden. It is an interactive database of advise that gives you the possibility to ask those who really know. But the most beautiful thing about Machina Recordatio is that apart from holding what will no longer exist, it carries these voices to the public space.

Isabelle Massu – The Great Family of Man

Posted by Vicentiu Dinga

In her presentation, Isabelle Massu talked about her project, L'Iconopathe, stating that it first spawned two years ago, from her love of photography and archiving. The Iconopathe, which takes the shape of a website, is meant to showcase how photography has changed throughout the last 20 years. It is 'looking at the people and how people are taking photos nowadays as opposed to the past'. The idea behind the project was to bring out these photographs from the past and present and organize them and show them to the people. Isabelle used Picasa to organize all these photographs, drawing inspiration from an exhibition from the 50s, called "The Great Family of Man", which was organized by the Museum of Modern Art in New York, in the attempt to paint a portrait of humanity. The project, in the shape of a website, is her interpretation of what the creation of man looks like, through images told as stories in collections, from birth, going to important life moments such as weddings and then ending with death.



Through the Iconopathe, Isabelle Massu tells the story of *the Google family*, 'one of the most popular families in the world, through its family album – Picasa'. She calls this a democratic tool where everyone can contribute with their life stories. She organizes these life stories in albums which are focused around a central theme. Isabelle also mentioned her ways of searching for photos, which was mainly through Picasa tags, labels and categories, but also randomly navigating around images. The end purpose of The Great Family of Man, as stated by the artist, is to present how people are using photography lately and what kind of meaning they give to it, what photos get to be uploaded online for the world to see and how they can be organized into a story.

Rosa Menkman on resolutions

Posted by Katia Truijen

For a year, glitch artist and researcher <u>Rosa Menkman</u> has been studying <u>resolutions</u>. She was inspired by the <u>Evil Media Distribution Centre</u> by Graham Harwood (YoHa) and Matthew Fuller (Goldsmiths, University of London) that was presented at <u>Transmediale</u> this year in Berlin.

Rosa Menkman's resolution studies are a 'studies of solution'. She investigages solutions between different kinds of materials, and what one wants to do with them. Her project is not a critique to Evil Media. However, Evil Media are presented as very boring and grey, while they are actually quite interesting.



A resolution not evil, Rosa Menkman states. "I want to realize what they actually are and expand on what they are. First by breaking the file formats. I made static images by using compression. Compression is build to work for a certain format. The language of this compression is one of the resolutions that I'm working with". You may call resolutions *protocols*, but they are also really about solution seeking for a problem, Rosa Menkman argues.

"No resolution exists on its own, they are capsulated again and again. There are so many rules and protocols build on top of each other, that we don't see them anymore. Moreover, we don't see what solutions they are for which problems. A lot of resolutions have become totally normal. For example, since the beginning of film, we have made videos that are *square*. This used to be neccessary and practical, but now we don't actually need square video's anymore. We are simply used to the format. Theses are rules that are based on rules are rules are based on rules. We deleted the option for ourselves."

Rosa Menkman explains why she started to study resolutions. When she was in New York City, she was walking around while not feeling so well. A friend explained that he just got the flu vaccination, because there was a big outbreak of flu according to Google Flu Trends. Rosa Menkman tells that she wants to know *why* she is not feeling well, and not to simply get a vaccination because big data are showing that it would be wise to do so. Since there is so many data to find, we do not know how to ask the questions anymore, because of all the *keywords* that we use to look for information every day. Instead, Rosa Menkman advocates that we should learn how to make questions again. She concludes by quoting a friend; "*when there is no real question, we need creative problems.*"



Session 4: Reflections on Search

Kylie Jarrett – Search for the Google God: Metaphysics and the Social Imaginary of Search

Posted by Marta Burugorri

In this first session of Friday Kylie Jarrett talks about the history of search, going back to metaphysical desires on historical information technologies but focusing as well on Google and contemporary search engines. Kylie highlights two sources of deep importance in the history of search; past practices that are still valuable to understand the current culture of networked search.



On the one hand she puts the example of Atomism, an ideology of ancient traditions that beliefs that the whole world can be reduced to atomism, that is to say, to void and materiality. That distinction between void and materiality anticipated the current binary distinction characteristic of our digital age. Theories of atomism claim that our bodies are aggregated bits of information. Consequently, reality is constituted in abstraction and reducible. That is to say, we can reduce all the information, all the knowledge, to an storage device; the best example is Google. Atomism, by understanding the knowledge as something divisible from which patterns are generated, creates the basis of Google's personalize form of search.

On the other hand, she also points out the foundation of the tower of Bable and she compares it with a universal library. The myth teaches us that when all the power and knolwledge is located in one only place (such as language or a universal library), is subjected to corruption. In other words, the tower of Bable is like fabricating a code that ends up being independent from its makers. She suggests that the attempt to organize all the knowledge into a single place might produce an overload of information as well as a brake between meaning an information. Once again, she parallels this myth with a search engine like Google, in which all the knowledge is located in a single search engine. Indeed, it seems that what does not exist on Google, does not exist in life. There is no truth, there are millions of truths, each truth is personalized for each individual.



She also refers to the notion of metaphysics of search and shows the example of Llull's thinking machine in which a machine is used to combine elements of thinking – for instance, elements of language-. Llull's machine made logical reductions in a mechanical way. He demonstrated that human thought can be described by a device and anticipated our current digital system. As Kylie suggests, this is the idea that knowledge can be reduced to abstract principles and therefore create an universal index of the world. This is the universality of Google's index and its domination. To conclude, Kylie holds that we have to understand why Google dominates the world and be aware of our complicity with it. Why we enable Google to

take that big space in our lives? -"Only when we will understand search origins we will understand something like Google".

Algorithmic governmentality and the end(s) of critique— Antoinette Rouvroy

Posted by Philip Anderson

Antoinette Rouvroy, in her presentation titled "Algorithmic Governmentalities and the End(s) of Critique," discussed issues surrounding search engines current focus on relationships between sites rather than content. She began by explaining



how modern academic knowledge goes through a series of critiques and peer reviews, while algorithmic knowledge is focused on more predictive aspects, never challenging people or content. An alternative definition of these changes could be summarized as "knowledge without truth."

Rouvroy provided three examples of this paradigm shift by highlighting changes in knowledge production, modes of power, and human subjectivity. Knowledge production is a constantly accelerating and evolving process. Today, the vast amounts of raw data available make it difficult, if not impossible, to understand fully. More and more of our knowledge production is being controlled, or at least accessed through, machines and search engines. This flow of "signs without signals," attempting to represent reality, falls short and creates an atmosphere of "significance without symbolism." The idea that knowledge is not constructed anymore, and merely found by Google and similar engines, has real consequences for humanity.

In this new world quality is determined by the relational infrastructures such as hyperlinks and keywords. When ranking pages, these relations are weighted much more heavily than the content itself, or the truth it may represent. While this system may seem extremely democratic, Rouvroy warns us of the implications of having ephemeral and algorithmic programs determine what we view as knowledge. A implication of this is the dwindling importance of the subject. As big data continues to

grow and be analyzed at ever increasing rates, individuals lose forms of identity in order to be included in this knowledge system.

For Rouvroy, this loss of individuation and critique are highly related. She argues there is worth in how older systems of knowledge, such as physical archives, allowed for ideas to be categorized, and then subsequently tested for accuracy. Today these checks on truth are more more difficult to execute. Rouvroy ends by arguing that these new paradigms are "maybe" emancipatory and democratic, but are certainly multifaceted. All of this has created the current state of human/digital interactions as "multitude without alterity," finding knowledge through difficult to fully understand search algorithms and engines.

Anton Tantner – human search engines and intelligence offices of the analogue age

Posted by Irina Enache

Much critique and debate at the 2nd edition of Society of the Query took place around the way that knowledge – a complex, dynamic and essentially cognitive (human) process – is indexed and retrieved via algorithmic identification made possible by software search engines. This cold, mathematical and apparently democratic way of surfacing certain knowledge at the expense of other has been criticized to leave little space for attention to quality and content; also, search engine's apparent gratuitous service ("it's for free") does not consider private data (such as logging into your Google account) as currency. Therefore, the politics of search engines brought up for discussion issues like user data privacy, filtering bubbles, censorship and surveillance.

Yet the society of query wasn't born in the digital age; nor are search engines and the heated issues around them a novelty for the last centuries' societies, argued Anton Tantner. Professor at University of Vienna, Department of History, Tantner stepped in with a much needed media archaeological and historical perspective. How have people in the past gained their information and knowledge in order to get by? What can be considered the analogue search engines of the past and what did "search" mean in the first place? What were the issues people raised for critique in regards to them and to what extent were there similar concerns to today's digital search engines?

<u>Tantner</u>'s presentation – *Towards a history of search in the analogue age: human search engines and intelligence offices* – identified particular actors who played the role of human search engines, starting the 15th to late 20th century. He divided them into two categories: **individuals (contact agents, servants and concierges)** and, latter on, **institutions (registration bureaus or intelligence offices).**



In the early 15th century Europe, with the emergence of a more clear employment market, household administrators used the services of **agents or contact brokers** in order to find the right servants. The agents charged a fee for their services and promised to recommend suitable candidates. They thus acted as centralizers of employment information and also held a certain power to either recommend or reject servants in search for a new job.

Another example consists of information holders were the **servants** themselves – whether working for a long time in a household or constantly changing them, they held insights (often intimate or inconvenient) of those families. It was especially the **chief servants**, who controlled servants and reported to the landlord, who held a double-edged position: privileged – as they knew everything about the households of their landlords and all other servants – but also hated because of this very fact, which is why many chief servants were also suspected of being spies. This 'frenemy' relationship was quite common.

Yet another emerging human search engine role was played by the **go-betweens**: the middlemen between foreign traders and the local markets. The go-betweens were valuable knowledge resources as they knew contact points and market trends in their city, which was unknown information to the freshly arrived foreigner. Some played a very specific role of enlisting accommodation opportunities, and thus foreigners would always inquire for go-betweens in order to find an inn or empty apartment. In large towns, this role was played by **concierges**, who were always aware of the networks within the community and knew both the strong and weak ties of every household. They were often the best resources to find accommodation but also work. Since they were in charge of their landlord's property (and often there were several properties), they were furthermore in charge of finding tenants and administrating the rent payment. They often had the same frenemy relationship with

their owners and tenants. As they became vital sources of information and management for both sides, they were also regarded with caution and doubt, perhaps for the very reason that knowledge is power and knowledge can be transferred to competing bodies.

The late 15th century saw an institutionalization of these individual, informal knowledge keepers into what Tantner defines as intelligence offices or registration offices. This was a result of both urbanization and growing flux of travelers and merchants, as well as a sense of chaos associated with expanding networks and power structures in the city. Tantner presented the first recollection of these registration offices in 1595 in Paris, by Michel Eyguem de Montagne: registration offices responded to the need of people to archive events, transactions, agreements, with start and ending dates, for purposes of recollection but also of pragmatic use. The registration bureaus were private institutions that charged fees in exchange for their services: enlisting and finding accommodation, work, starting a business, registering as a citizen etc. They reflected the gender restrictions of the time – women had no right to enter and use these bureaus, namely because of fears of prostitution-related activities, so women looking for work had to ask their husbands to do it for them. Soon enough, the activity of the offices expanded- they became a good meeting place for scientific manifestations - public lectures or exchange of goods and services, for example. By doing so, they directly competed with the traditional forms of education, of doing business. While the latter regarded them as enemies, the state supported intelligence offices on the argument of fresh competitiveness that would help the city resources grow.

When intelligence offices became outspoken of their mission to help organize society and provide answers to anyone with a question – much like the mission of many search engines today – they also raised issued in regards to their perceived purpose and practices. Because they collected sensible information about people (identity, address, business, purpose, employment history, criminal antecedents, social capital history), they soon became regarded either as police-like controlling bodies or simply as exploiting the people who needed information, by requiring them to pay fees. Critique of the bureaus acting as surveillance machines also arise, as many servants were enlisted in the job hunting and were subject to privacy tracking of their employment history, as well as criminal convictions. In this sense, registration offices slowly became the first institutions to introduce formal individual identity (such as identity paper, document) as necessary to become a recognized citizen of the society. The need for this "official", regulated search later took the form of telephone and address books; with the digital search engines, this information is stored on social media platforms.

Examples for European Intelligence Offices



- > Bureau d'adresse, Paris 1630 1643 (Théophraste Renaudot)
- Office of Address (project), London/Oxford 1647 (Samuel Hartlib)
- > Bureau d'adresse, Paris 1676 (François Colletet)
- > Fragamt (guestion office), Vienna 1707 ca. 1810 (Ghelen family)
- ➤ Universal Register Office, London 1750 1760ies (Fielding brothers)
- > Fragamt (question office), Lemberg/Lviv 1782 (Friedrich Wilhelm Schütz)

Anton Tantner's historical perspective sheds new light on how the fairly equivalent search engines of the analogue age – the human search engines and registration or intelligence offices – were in fact preoccupied with the same type of search people do on digital search engines. "Does X know about housekeeping?" might not have been first asked by LinkedIn, but rather by a 15th century old household lady in search for a new servant. The likes of accommodation search engines like Booking.com were in demand then as they are now, with particular individuals and institutions serving as advisers to travelers. They would also serve as hubs of entrepreneurial initiatives, with many citizens interested in opening a business using the advice and services of high-privileged knowledge keepers.

It was with the expansion of these human search engines from delivering specific information to taking up the mission of knowledge and society organization that raised issues like government use of private data of citizens, surveillance or prosecution. Tantner made a good point to show that the very idea of allowing a search engine, whether digital or analogue, to organize knowledge and society is, in fact, always problematic. He identified the main conflict in the double-edged politics of search engines – their frank usefulness for users in having access to information, on one hand, and the way they require something in return- namely, private data - which makes them dangerous.

In other words, today's digital search engines hold the same 'frenemy' type of relationship that human search engines had with society before: there's an overwhelming need to rely on them and a general uneasiness in giving away private data.

Book Launch: Ippolita – "The Dark Side of Google"

Posted by Ihab Khiri

During the second Society of the Query conference, the <u>Ippolita collective</u> presented their book entitled "The Dark Side of Google" (2007; it-fr-es-en) firstly presented in 2006. The book originally appeared in Italian, and has been translated into French, Spanish and consequently English. The distinct thing about writing is that it is a direct action, writing a book therefore is a good way to establish words, words that cannot be taken back. Translating the book into different languages has been a complex process, because every translation is subject to change.



The way we see Google has changed, where in the past we did not question the machine and used it without much criticism, nowadays everyone seems to be knowledgeable about algorithms and wonder how our results come to what they are. The idea of Algocracy suggests that the masters of clouds are becoming gods and from this different questions about religion arise. We do not know where our data stays and get the idea that our data is floating around in the sky, nevertheless we should keep in mind that even though machines are physical they are not immaterial.

Google has been taken as a case study because it is widely known, not as one would expect because of its high criticism. The book therefore could be seen as the only account that does not talk about the "evilness" of Google, rather sees Google as a

domination in which we [average citizens] are interested and which want to know more about. This interest comes from the tendency of Technology to become a domination drive in contemporary society.



Another issue that the book discusses, is the notion that technology has to be improved all the time. The question one should ask is what precisely do we want to make better? The Ippolita collective is not interested in the capitalistic idea of improving technology i.e. to create something that is better than current technology and earn money with it. Rather one should ask what is better for us and wonder what we expect from technology. Current technologies already offer many aspects that we are looking for in life e.g. Facebook is a great tool for social encounters and Google is already offering a great variety of useful applications. We have to use the medium for what it is intended and therefore we are the only ones that have to wonder what our desires are, before we start craving for "better".

We should stop the crazy run for more, in order to answer our questions and satisfy our cravings we have distance ourselves from any technology and have a dialogue with oneself. There is no war, nor oppression and the ideology of infinite growth will not satisfy our desires.

Session 5: Search in Context

Simon Knight on the Epistemic Context of Search & Assessment

Posted by Maya Livio

On day two of the Society of the Query conference, <u>Simon Knight</u> introduced his analysis of the search engine as an epistemic tool by outlining the latest policy changes in the Danish school system. After a recent pilot study (outlined <u>here</u>), Denmark has now rolled out new assessment regulations in which students are

allowed to access any website – including Facebook – during examinations, so long as they do not use the web to communicate with one another or with persons outside of the classroom. Safeguards have been put in place to reduce abuses to the system, including lectures on what constitutes cheating, and periodic spot checks. The nature of the exam questions themselves provides a natural obstacle to cheating, in that students are not asked to merely recite facts and figures, but to sift through information about the tested subject matter and reflect critically upon it. Knight's talk engaged with the psychological and philosophical assumptions built into search engines and how people interact with them. He asserted that by changing the assessment system, the Danish government has made fundamentally epistemological claims about what constitutes knowledge, truth, and accuracy, and about the tasks that students are asked to perform.



Some examples of claims that the Danish system implies, according to Knight, are that evaluation and understanding are connected to knowledge matters, that personal testimonies (such as those from friends or teachers) are unacceptable, yet that informants derived from querying the web are acceptable. In terms of tasks, Danish students are asked to compare and contrast information, evaluate the veracity of evidence, and decide when to stop researching. As Knight pointed out, web search is a skill in itself, and "people still aren't necessarily great at Google," reminding of examples such as the amusing web tool Let Me Google That For You.

Knight argued that context is important to consider when thinking about how people use and access information. In the case of search engines, it is necessary to keep in mind how they mediate access. Even on the level of rhetoric, Bing and Google claim slightly different approaches to information retrieval. Bing, leveraging its Facebook partnership, emphasizes contact in their tagline "For every search, there is someone who can help." In contrast, Google's approach seems to suggest that Google knows what you want before even you know it, and Knight noted that Google has not taken advantage of its Google+ resources to offer Bing-like personal testimonies. Whereas

Bing stresses communication and direct testimony by guiding the user towards people who may be good informants, Google claims to authoritatively know the answers. Knight also pointed out that the Danish argument of denying students access to communication websites is already moot, due to the tight integration between search engines and social networks.

Knight then outlined the potential flaws within the Danish epistemological assumptions, such as the inherent risks of web search. These include filter bubbles, testimonial and hermeneutical injustices (prejudice and marginalization based on a user's search history and country-level personalizations, respectively), and content holes such as gender and language biases. In contrast, Knight also highlighted the potential benefits of personal testimony, in that good informants should personalize information in order to make the content accessible and understandable.

Finally, Knight underscored the importance of reconciling search tools with users. He suggested that search engines should make their personalized assumptions more explicit, and offer users choices as to how these personalizations are enacted. He stressed the importance of teaching students information literacy skills, as searching for balanced information can be a difficult enterprise. He also recommended a few tools for diversity-aware search, including the Chrome add-on Balancer, which analyzes a user's web browsing behavior to reveal its political slant, and suggests readings to target imbalances.

Geert Lovink talks to Maarten Sprenger

Posted by Catalina lorga

The fifth session of Society of the Query #2, 'Search in Context' ended with a conversation between Geert Lovink and Maarten Sprenger, the author of a recently published book for children and adults about searching for valuable information online, who also has extensive experience in teaching about online search and who maintains a search engine especially for children. Please note that this is a revised and shortened version of the interview's transcript, meant to highlight the most interesting points of Geert and Maarten's conversation in a clear, concise and readable manner.

Geert Lovink (GL): Teaching the use of search engines in primary schools is quite advanced. Can you briefly sum up how you came up with this idea?

Maarten Sprenger (MS): For me it started with designing my own search engine, 8-12.info. Initially, it was a collection of links useful for primary school teachers, but then developed into a proper search engine meant to find relevant information for children. However, I discovered it wasn't being used, and that teachers often told kids to "just Google it!" If the children then asked how to do so, the teachers would answer that they need to find proper keywords. That was the big problem: both children and teachers don't know how to compose queries.



GL: Can you give us an example of your work in the classroom?

MS: My book, "Slim zoeken op internet" ("Smartly Searching the Internet"), is not only about search engines, but also about what Simon Knight, one of the previous speakers, addressed inhis talk, namely information literacy. This book is about all things children should know regarding online search. For instance, kids need to build their individual vocabularies when faced with a search topic and investigate what they already know about that particular topic. Collaboration with fellow students on composing a query is essential. Children should first write down relevant words and ask questions to each other in order to come up with a meaningful query.

GL: I've read your book 2-3 times already and still find new things in it. Still, going back to the main question, how do you start teaching search engines to kids?

MS: It's hard to really start teaching it, that's why I wrote a book directly aimed at children. Schools don't recognise it as a problem that needs to be dealt with. However, in my own art education classes, I try to include developing search skills. For instance, as part of my "Children of Amsterdam" project, which focuses on storytelling, kids had to find their own story and that's when online search came into play.

GL: What struck me the most is how technical your book is. You seem to initiate kids in the use of a very technical language.

MS: Are you referring to search commands?

GL: Yes, you emphasise the importance of such commands, even if many of members of the audience don't use them.

MS: You can best dig for information using those commands. Take the "site:" command: it's a very powerful tool because you can search within the subpages of one specific website. The Web is far too big and, when it comes to information for children, you have to know which websites to query.

GL: Your website has more of the look and feel of a search portal rather than a engine.

MS: My website is both a portal and an engine, it does search all sites that are linked.

GL: But, if search currently plays such an important role in education, why do you think there are no specific search engines for kids?

MS: It's because of a two-pronged issue of readability and reliability. An eight-year old child, for example, doesn't need difficult texts, but readable information, tailored to his level of comprehension. Teachers must teach children to distinguish between reliable and non-reliable information, which is a key part of media literacy (or media wisdom, as we call it in the Netherlands), but here it's just a small part of learning how to use computers as tools.

GL: Let's focus on the rise of tablets. What do you think of this development? **MS:** I think tablets and apps are great. They encourage exploration.

GL: Would you say it moves away from typing and clicking on links to taking shortcuts through much faster, almost subliminal activities? Do you think children know what they're doing?

MS: When it comes to games and other apps, it's hard for teachers to evaluate how useful they are. If tablets and their apps are to become a mainstay of education, then we have a problem. They can be good for teaching math, which is more easily verified, but it's harder to assess other, more subjective types of learning. A balance must be found, one that combines using new devices with the interaction between teachers and students.

GL: Another problem and a significant issue of the Internet economy, which you also address, is free content. What is your stance on this matter?

MS: When your school is paying for – and depends on – accounts on various websites, such as language platforms, education becomes very fragmented. Information is being skipped; school libraries are being phased out and will be gone soon, unless a movement to prevent that begins. Children and schools with limited financial resources, however, won't pay for access to online encyclopedias, especially when they believe that everything is freely available on the Web. While researching for my search engine, I found there is a lack of readable / reliable information for children on subjects such as geography, religion, sports and art.

GL: What is the next step? Teaching the teachers?

MS: I'm actually working on a new book, slightly different from "Slim zoeken op Internet", on how to teach students.

GL: Is media literacy, as a part of the curriculum, on the rise at the moment? **MS:** Yes, but it's not nearly as widespread as it should be. For now, it's up to individual teachers

Sanne Koevoets – Library Dwelling: Quest and Query Tropes in Narratives on Libraries and the Internet

Posted by Stefania Bercu

Dr. Sanne Koevoets currently teaches philosophy and new media studies at Leiden University College in The Hague. In her research she focuses on the gendered dynamics of the library in the network society, with which she has engaged through the figure of the female librarian and the trope of the labyrinth.



In her talk, *Library Dwelling: Quest and Query Tropes in Narratives on Libraries and the Internet*, she discussed about the posibility of the dream of The great Library of Alexandria being made possible by new digital technologies.

Dr. Koevets discusses the library from multiple perspectives, showing how it is both viewed as a space that contains all the knowledge possible to us (*Borges' The Library of Babel*), but at the same time also as an impenetrable labyrinth that, although holding all this knowledge within its space, does not offer an intelligence system that allows for its exploring (*Eco's The Name of the Rose*). She argues that any such organizing system is one of both inclusion and exclusion and is thus a political system made out of local prejudices and connections that shift as a result of a given system of power, so no real objective system of organization is possible. She brings into discussion Leibniz and his idea that the main problem with a library organisation system is rooted in the physical form of the book, which allows for the library to be only organized as linear. However, knowledge and meaning is based on complex cross-connections, so in this linear system knowledge itself becomes fragmented.



Furthermore, when discussing the possibility of the Universal Library becoming real in the digital realm, we must ask ourselves two questions. The first one is "Can we state that it is objective?", meaning that we can find order in it with no exclusion? As the two days of conference have showed, search results are extremely customized and one must look no further than to countries that limit or censor internet access to understand that the Internet is also based on a network of powers that relies on inclusion and excusion. The second point concerning the internet as Universal Library is "Is it a library?", to which again we must respond negatively if we consider the symbolic implications of the library as physical space, which is to represent the link between knowledge and power.

Dr. Sanne Koevets states that the are two plots or tropes to exploring the internet library: quest plot (in search of knowledge) and query plot (dwelling). She concludes by saying that the aim of dwelling should not be limited to locating or finding truth, but also to reflecting how knowledge is produced through discourse and materiality. She explained this point further by stating that knowledge itself is not emancipatory through the act of having it, but through understanding how it can circulate, how it is produced and performed and through understanding the relationship between the object and the subject of knowledge.

Session 6: The Filter Bubble Show

Erik Borra and René König Show Google Search Perspectives on 9/11

Posted by Catalina lorga



Erik Borra and René König were the second to last speakers of Society of the Query #2's sixth and final session, The Filter Bubble Show, with a talk on why search engines are biased. As a case study, Borra and König chose the controversial topic of 9/11 and tried to answer how Google's algorithm decides what is relevant for this particular query. The reason why chose 9/11 as an object of study is its status as a global phenomenon examined from diverse perspectives, including conspiracy theories of 9/11 Truth Movement variety, which questioned the mainstream version of events featured in the media.

For the past six years, a script made at the Digital Methods Initiative, queried Google daily with the term "9/11" and stored the top 10 search results for each day. The corpus of Borra and König's study consisted of results chosen from four dates per year, one every few months. The top 10 URLs for the selected days were then coded using an emergent coding scheme: reading through all the pages that the URLs pointed to, noticing content commonalities and constructing the main categories of 'mainstream', 'conspiracy', 'meta', 'history / facts', 'memorial', 'aftermath', 'popular culture' and 'other'.

What they initially observed was that the majority of websites contained alternative accounts of the 9/11 events, mainly conspiracy theories. Over time, categories also tended to shift in a more conservative direction. In addition to this, it would seem that in 2008 many websites focused on dealing with the aftermath of the attacks, but then, in 2011, they became less significant as mainstream sites took over.

Perhaps the most striking finding is that in 2012, conspiracy websites practically disappeared from the results, while the Wikipedia entry on 9/11 and the site of the 9/11 Commission gained prominence. Borra and König tend to attribute this crucial change to the first update of Google's Panda algorithm, rolled out in early 2011. Google claimed that this update improved rankings for so-called "high quality" websites. This claim begs the question of what constitutes quality, according to Google.

To further explain why websites containing alternative accounts of the 9/11 events could no longer be found in the top 10 results in 2012, Borra and König gave some examples of what the leading search engine considers to be a "high quality" site, including the rather odd criterion of whether visitors could be comfortable with giving their credit card information to the website.

The two scholars concluded that offline knowledge hierarchies are not always mirrored in Google results and that popular perspectives neglected by traditional knowledge authorities can benefit from the algorithmic determination of relevance, manifested through the reception of a large number of links. Ultimately, none of this matters if altering established rankings is one click away. Changing a search engine's algorithm can clearly impact the hierarchy of knowledge itself.

Measuring Personalization: An Experimental Framework for Testing Technological Black Boxes—Pascal Jürgens

Posted by Philip Anderson

Pascal Jürgens, in his presentation titled "Measuring Personalization—An Experimental Framework for Testing Technological Black Boxes," discussed issues surrounding control and responsibility in regard to search engine results. As search engines increasingly provide easier and easier access to content, they also hold immense power over what information users actually receive. With the everincreasing use of personalization and prediction, search engines act as black boxed systems that control flows of knowledge.



Jürgens discusses the oscillating nature of control between positive and negative impacts. From the earliest uses of information collection by feudal kings on their subjects, there has always been a power-based aspect of knowledge, and how it is found. It is this historical nature of knowledge that led Jürgen's to say, "It's all new and it's all old." It is the new that becomes the focus of the presentation.

Jürgens raises the question of Google, and its responsibility to "not be evil." How do the use of advanced personalization and its potential to influence users fit into this question? Jürgens says that "personalized search results further expand this potential because they explicitly aim at maximizing the relevance of delivered content with regard to selection decisions. Despite their relevance, these technologies have rarely been subject to social scientific scrutiny." As a social scientist, Jürgen's research focuses on the existence of this 'filter bubble.' the idea that the results we get are based on the results we want.

Jürgens is determined that while results did fluctuate from one person to another, no real filter bubble appeared to exist. He went about determining this by creating multiple fake Google accounts. These accounts would have search histories created, with each having its own theme (politically left, young, old. These accounts would there guery Google, and Jürgen's would compare what results were returned. It the end he determined that the results were similar enough to disprove the existence of a more controlling filter bubble. During the Q&A session after the talk, Jürgens explained that the testing methods for his research need to expand, and he is planning on continuing to study the filter bubble.

Does Culture Affect Information Diversity? Engin Bozdag

Posted by Ihab Khiri

Engin Bozdag is a PHD candidate at Delft University of Technology and spoke about his Empirical study of Information Diversity for Dutch and Turkish Twitter users. Engin Bozdag was interested in the information bubble phenomenon; the idea that the information we receive and process is part of a bubble that is a result of selection and the notion of our world. The information bubble is also present in our use of social media, in particular Twitter is a selection of information we decide or decide not to read. This is an important subject to study, as social media are becoming very important sources for our news consumption.

In the recent uprisings in Turkey, being a result of local government decisions to take down the last green area in Istanbul's city center, protesters used social media as important tool for the dissemination of information. The protests escalated and the government responded with hard measures e.g. using teargas capsules. This has increased the protests through the country and caused protests of Turks globally. The Netherlands, with its high number of Turkish citizens also knew several protests in the country. Remarkable was the silence of the Turkish media; as nothing was covered in the Turkish media, it was impossible to acquire information about the events through traditional media.



Engin Bozdag encountered this lack of coverage and realized that the only way he could acquire information was through his social media in particular Twitter. As Twitter shows information from preselected contacts, it soon became a one sided information outlet which did show both sides of the conflict. Thus, can we state that there are filter bubbles in social media and if so, how can we measure this effect? Engin therefore designed a study about information diversity through the online environment in democracies, the topic is studied among several disciplines. The study covers an investigation of Dutch and Turkish Twitter users using a crawling technique that has analyzed Twitter API's for three months. Map seed users were defined into different categories covering the different political standpoints.



Engin argues that the study knew several limitation such as the possibility to study only active Twitter users and proposes that more qualitative studies are necessary in order to see the relationship between source diversity and exposure diversity. Nevertheless he concludes that there is a filter bubble in the sense that 30 % percent

of the Turkish Twitter users miss updates from minorities vs. 3% of the Dutch Twitter users. Furthermore is noted that retweeting is not as diverse as the composition of new tweets and that once social media take on the role of search engine, based on his results diversity might arise.

Overall a very interesting investigation, based on the notion that social media are becoming important news outlets – offering a very interesting springboard to further research on diversity in the online networking environment.

