



Data driven futures - censorship takes new forms

by Päivikki Karhula (University of Tampere, Finland)

Contents:

1. Freedom of speech and censorship - project
2. Surveillance and censorship intertwined
3. Who controls the internet?
4. Paradoxes of democracy
5. Big media - concentration, globalization and user data
6. Media redefined
7. Big data
8. Information regime and respect for the user
9. References
10. Additional information & contacts
11. Project on social media

1. Freedom of speech and censorship - project

Freedom of Speech and Censorship in the Internet Age -project was launched in January 2011. The research project works in a co-operation between Finnish National Library and Tampere University Department of Information and Interactive Media Studies (INFIM). The research project is funded by the Helsingin Sanomat Foundation - Helsingin Sanomat representing a leading Finnish media company. Chair of FAIFE, Director and Chief Librarian of the National Library of Finland, Kai Ekholm, is also a leading this research project which will be completed 2011-2012.

The main goal of the project is to research the status of censorship during the internet era. To reach this goal, the theme of internet censorship is divided to several subtopics e.g. internet culture, technologies, marketplace, privacy and anonymity in different articles. The outcomes of the project include a doctoral thesis, research articles, a web site as well as contents and tools for broader discussion on social media (Facebook, Twitter, Blog, Book club). The project has also gained publicity on printed media and radio in Finland.

Internet censorship and freedom of speech will be a major topic of discussion in several events which are targeted to professionals and general public. IFLA Conference 2012 in Helsinki will be the main event to bring up these topics. Project deliverables will also be shared on FAIFE's web pages, FAIFE Spotlight and FAIFE's social media channels.

2. Surveillance and censorship intertwined

Censorship on the internet age has extended and become more complex. Technologies may involve in contents on different levels: on web-sites, specific web-pages or even on specific words. The desired contents may be filtered out of search results or access on web pages or services may be denied. (Dutton et.al., 2010)

Stronger punishments include taking down the content on a given site or sanctioning the producers of the contents. Journalists and bloggers may be harassed, arrested or killed, especially in totalitarian countries. According to the report of Reporters without borders in 2011 there were 66 journalists killed, 1044 journalists arrested, 199 bloggers and netizens arrested and 62 bloggers and netizens physically attacked (Reporters without borders, 2011).

Censorship and surveillance have extended continuously and it is no more limited in totalitarian countries. Presently, we have 68 countries subject to Internet censorship (Reporters without borders, 2011). Freedom House's annual survey (2011) of global political rights and civil liberties indicated, that conditions of control worsened for the fifth consecutive year in 2010 (Puddington, 2011). In 2012, the percentage of the world's population living in countries with a fully free press fell to its lowest level in a decade - and a decline in press freedom took place especially in several well-established democracies (Deutch Karlekar & Dunham, 2012).

Also, there are an increasing number of violations and restrictions for Internet speech in Europe. 300 of the cases of arrested journalists in 2011 took place in Europe (Reporters without borders, 2011). Internet censorship has been legalized as well. For example, under the Council of Europe's cybercrime treaty hate speech is prohibited. As a consequence, ISPs are responsible to take down a content violating the treaty from a domestic host - or block such content if it is hosted overseas (Nunziato, 2011).

Censorship and surveillance are intertwined on the internet: monitoring of users and communication aims at revealing the defined targets and criminalized contents and other tools and methods of censorship can be further utilized to take into action. Advanced surveillance technologies may also function as multipurpose tools. Deep packet inspection can e.g. the intercept and log Internet traffic, it may be used for enforcement of copyright, to prioritize limited bandwidth and to track users' behavior - and these tools can serve different parties and interests (Dutton et al., 2010). Tools of censorship and surveillance became this way bound together with the other utilities for network management. Ubiquitous technologies, which enable locating and recognition of users and extend data collection to various everyday activities, intensify the scope and worsen the conditions of data surveillance and censorship.

3. Who controls the internet?

The era of internet in has turned out to have different phases in relation to it's controllability: it started in 1990s with "open commons". Since the beginning of 2000s ("access denied") control of the cyberspace increased through filtering, blocking and government intervention. (Deibert et al, 2012). Since the mid-2000's methods of control extended and they became more subtle and nuanced ("access controlled"). More targeted and specified controlling mechanisms were introduced: "Just in time" optimizing and registration and licensing requirements were applied to identify users. Governments were no more the main stakeholder of control, but public-private partnerships increased. (Deibert et al, 2012).

In 2010s the models of control have become even more refined and involved in a level of internet architecture and principles and protocols of technologies. Control of internet is no more limited on totalitarian countries, but it has been adapted as a global norm (Deibert & Rohozinski, 2010). Governments do not any more ask if internet can be regulated, but rather how to regulate internet and how regulation should be carried out most efficiently. At the same time, there is a growing public realization about the power relations of internet. The influence of powerful actors and their battles over power and control of the cyberspace has become evident. Large civil society reactions have emerged against extended control mechanisms ("access contested"). (Deibert et al, 2010)

During the latest phase of control privatization of censorship and data surveillance has increased. Indeed, the most of cyberspace is owned and operated by private companies. These companies may include e.g. technology and telecommunication companies, service providers (ISPs, OSPs), advertisers and technology developers, surveillance technology companies, content producers, publishers and media. If a trend of privatization continues, censorship and surveillance may turn into the hands of it's strong commercial players, like cloud-computing services, Internet exchanges, and telecommunications companies. (Deibert et al, 2012)

4. Paradoxes of democracy

Internet and social media do not necessarily go hand in hand with the democracy, although many technology utopists have had this type of ideals. Internet alone has not turned out to enhance democratic development, transparency and fair governance. There are many other factors in the background: economic, cultural, religious, political, individual and chances of history. (MacKinnon, 2012a)

Although there is a lot of evidence of the empowering impact of the internet there is also another type of development trend within the sphere of internet. In many countries internet has mainly extended the power of the government or strengthened the impact of totalitarian regimes (MacKinnon, 2012a). Sometimes interests of the government are intertwined with the private companies. Companies may want to extend their markets and public sector as a client is too lucrative for them although the government policies would turn out to become destructive

for some groups of the citizens. This kind of intermediary censorship has been in steep rise (Zuckerman, 2010).

According to Rebecca MacKinnon, it would be necessary to study closer even the relationship between internet and its' revolutionary impact. For example, Arabic spring in Tunis and Egypt did not take place because of the Internet, but rather via Internet. Social and structural changes of the society had developed slowly behind the curtain since a decade ago. During the years activists experimented different kinds of network technologies, created and refined contents and developed their networks of relationships. Finally, an Arabic spring was a result of the long-standing developments, which actualized both in physical environment and via internet when a moment occurred. (MacKinnon, 2012a)

5. Big media - concentration, globalization and user data

The position of media in relationship to censorship is versatile - technologies, politics and marketplace will have impact on it. Trends of concentration, consolidation, convergence and globalization are evident among media and information industries (Cooper, 2007, Fuchs, 2010, Noam, 2011). US. media marketplace describes the setting of concentration well: 5 companies control 85 % of media sources, Universal Music Group, BMG, Sony Music Entertainment, Warner Music Group and EMI have 85 % of the music market and 5 largest cable companies have control over 74 % of the cable subscribers nationwide (Lessig, 2005).

Globally, the trend of concentration varies in different countries, but in many countries there are major media companies, typically owned by major shareholders or families (Noam, 2011). Large international media conglomerates include National Amusements, Viacom, CBS Corporation, Time Warner, News Corp, Bertelsmann AG, Sony, General Electric, Vivendi SA, The Walt Disney Company, Hearst Corporation, Organizações Globo and Lagardère Group (Wikipedia).

Concentration and globalization have taken specific forms on information industries. In spite of trend of concentration, the structure of media industry seems not to be purely monopolistic, but rather an oligopoly with a "long tail": Few "integrator" firms co-operate with numerous content providers (Noam, 2011, s. 8). Media corporations are typically nationally grounded, but their operations, outsourcing, subcontracting, assets, sales, profits and affiliates have become in a certain degree of global. Transnationality also seems to be an emergent quality and tendency for information industries - so, it is likely that the trend of globalization will deepen. (Fuchs, 2010).

Big data has also implications on media environment. Joseph Turow expects that the next major challenge for the media is based on the use of consumer data in advertising business which will have deep and structural impacts for the media. Media needs to get into the food chain of personalized services if it wants to survive. Through the analysis of personal data, readers become as profiled groups, whom media offers more targeted services and contents. This approach is also likely to move content producers outside of the traditional journalism: to

integrate contents for different media and entertain their users with other type of related products and services, like games and quizzes. In this setting the position of journalism will also become redefined. (Turow, 2011)

6. Media redefined

The impacts of structural changes of media industry may not lead to direct censorship, but rather transform conditions of journalism and change the emphasis of contents. Concentration has turned out to decrease culturally diverse, locally-oriented and public interest contents (Blosser et al., 2007). Consolidation may lead to narrower presence of different stakeholders in a society - withering institutional diversity (Cooper & Cooper, 2007). From a broader perspective, media concentration also associates with the poor government, less democracy and freedom, more corruption, less effective regulation, lower research and development, lower economic growth and lower digital access (Noam, 2011).

Government may also put new pressures on media for control of their users. Media, as other online service providers, can be held accountable of the behavior of their users and become responsible to monitor and control their users on the net to in order to prevent sharing of copyrighted materials, hate speech or to screen out other possible criminalized contents. Control mechanisms may be extended as well to restrict anonym communications within internet services or to limit the protection of sources.

Ubiquitous surveillance in relation to protection of sources has already raised concerns among journalists. If people feel themselves vulnerable by contacting journalists because of possible surveillance of their mobile and email communication, it will be more difficult for journalists to handle controversial, marginal or politically sensitive issues. Journalists do not feel comfortable with the trend of increasing data surveillance and intercepting of phone lines and email becoming commonplace. If protection of sources is valued working principle of the media, communication between journalists and their data sources should be well protected. (Verclas & Dunn, 2012)

7. Big data

Big data has become a concept which describes the conditions of extended data collection. We become classified, profiled, categorized on our every click on the internet - and this data is mainly stored permanently (Solove, 2004).

Google, Facebook and Microsoft have data on hundreds of millions of users. The ubiquitous environment extends the dimensions through locating and recognition of individuals, real-time collection and integration of data - and especially by increased amount and depth of data. Data pools expand rapidly due to the data growth in transactional databases, expansion of multimedia content, popularity of social media and proliferation of applications of sensors in the Internet of Things. (Manyika et al., 2012). And there is more interest on accurate and

personal data as well. Personal location data is among the 5 leading fields of data collection globally (Manyika et al., 2012).

Big data doesn't refer to the increased amount of data only, but to the technologies which are used to gather, analyze, link, and compare large data sets and to the analysis of the data used to identify patterns in order to make economic, social, technical, and legal claims. (Boyd & Crawford, 2012, s. 2). The picture offered for consumers of the uses of data e.g. in ubiquitous environment emphasizes providing of personalized services, and personalized marketing. Data becomes as a tailor made suit: personalized services and products are offered for users based on their profiles, classifications and probabilistic predictions of their data.

The other side of the coin is use of the same data for many other purposes: decision making, evaluation and for definition of user's rights, access, benefits and restrictions. Data practically defines citizen's position in a society. And from the perspective of surveillance and censorship, the same data may be utilized to strip citizens from their rights and benefits or even to destroy them.

It becomes less useful to discuss of censorship and data surveillance in specific connections, within a certain institution or even nationally, since the context of data ownership and management has changed. There is no one Big Brother or surveilling party, but a group of possible globally and locally networked actors, public-private partnerships and merging of data from different sources to large data warehouses.

8. Information regime and respect for the user

During the short history of internet age, cyberspace has become colonized by powerful actors and by competing geopolitical and commercial interests. Censorship is no more limited on publications, books or articles or specific hot issues and totalitarian countries. Control on the internet has become as a global, networked and multi-stakeholder effort which enables third party involvement in data flows and communications. And ubiquitous environment with its hidden data collection and management practices makes it even less transparent (Karhula, 2008).

In this setting, it becomes unpredictable, who is going to use citizen's data and for what purpose. There is also a growing public awareness of conditions of data surveillance; risks of getting undesired digital profile and possibility of become sanctioned. All these developments will increase consumers' sense of insecurity and vulnerability and inhibit them to engage in self-censorship and self-monitoring to protect themselves. However, many people are not aware of the multiplicity of agents and algorithms around personal data collection, storing of their data for future use, possible uses of their data - and about the dimensions of profitable personal data economy (Boyd & Crawford, 2012)

A global shift towards personal data driven economy has already taken place. It has proceeded mainly without public discussion on citizen's rights to the data related to their own activities or

about possible tools and options to protect oneself against inappropriate data collection. This setting recalls for the definition of rights, freedoms and power in relation to data flows and considerations of fair information practices related to the personal information management. As Joseph Turow defines his perspective on data driven economies - an information regime which respect users would be needed (Turow, 2011). New issues do not only concern privacy protection and even civil liberties, but new vulnerabilities of citizen as a target of social sorting - and from the broader perspective it concerns social changes and structures the data surveillance enables and initiates (Lyon, 2003, Lyon, 2006).

9. References

- Blosser, Larry A. & Scott, Ben & Kenney, Jeannine & Kimmelman, Gene & Manishin, Glenn B. (2007), Compendium of Public Interest Research on media ownership, diversity and localism. In: The case against media consolidation. Evidence on Concentration, Localism and Diversity, 2007. Edited by Mark N. Cooper. Donald McGannon Center for Communications Research, Fordham University, Stanford, 2007. [Link](#)
- Boyd, Danah & Kate Crawford (2012): Critical questions for Big Data. Information, Communication & Society, DOI:10.1080/1369118X.2012.678878.
- Cooper, Mark N. (2007). The case against media consolidation. Evidence on Concentration, Localism and Diversity, 2007. Edited by Mark N. Cooper. Donald McGannon Center for Communications Research, Fordham University, Stanford, 2007. [Link](#)
- Cooper, Mark & Cooper, Steven (2007), Television Remains a Dominant Medium in Democratic Discourse. In: The case against media consolidation. Evidence on Concentration, Localism and Diversity, 2007. Edited by Mark N. Cooper. Donald McGannon Center for Communications Research, Fordham University, Stanford, 2007. [Link](#)
- Deibert, Ronald & Rohozinski, Rafal (2010), Beyond Denial: Introducing Next-Generation Information Access Controls. In: Access controlled: The Shaping of Power, Rights, and Rule in Cyberspace. Ed. by Ronald Deibert, John Palfrey, Rafal Rohozinski, and Jonathan Zittrain. The MIT Press, Cambridge, Massachusetts & London, England, 2010. [Link](#)
- Deibert, Ronald & Palfrey, John & Rohozinski, Rafal & Zittrain, Jonathan (2012), Access contested: Toward the fourth phase of cyberspace controls. In: Access contested: Security, Identity, and Resistance in Asian Cyberspace. Edited by Ronald Deibert, John Palfrey, Rafal Rohozinski, and Jonathan Zittrain. MIT Press, 2012. [Link](#)
- Deutsch Karlekar, Karin & Dunham, Jennifer (2012), Press freedom in 2011: Breakthroughs and pushback in the Middle East. In: Freedom of the Press 2012. Breakthroughs and Pushback in the Middle East: selected data from freedom house's annual press freedom index. Freedom House, 2012. [Link](#)
- Dutton, William H. & Dopatka, Anna & Hills, Michael & Law, Ginette & Nash, Victoria (2010), Freedom of Connection - Freedom of Expression: The Changing Legal and Regulatory Ecology Shaping the Internet. Oxford Internet Institute, University of Oxford.

A report prepared for UNESCO's Division for Freedom of Expression, Democracy and Peace. [Link](#)

- Fuchs, Christian (2010), New imperialism. Information and media imperialism. *Global Media and Communications* 6.1 (Apr 2010):33-60.
- Jenkins, Henry, *Convergence Culture: Where Old and New Media Collide*. NYU Press, 2006.
- Karhula, Päivikki (2008), The cattle hotshot - citizens on a shade of the ubiquitous society. In: *Paratiisi vai panoptikon?: Näkökulmia ubiikkiyhteiskuntaan*. Päivikki Karhula (edit.). Helsinki, Eduskunnan kirjasto, 2008. [Link](#) (English version)
- Lessig, Lawrence (2005), *Free culture : the nature and future of creativity*. New York (N.Y.) : Penguin Books, 2005.
- Lyon, David (2003), *Surveillance as social sorting: Privacy, Risk, and Automated Discrimination*. London: Routledge, 2003.
- Lyon David (2006), *Why Where You Are Matters: Mundane Mobilities, Transparent Technologies, and Digital Discrimination..* In: *Surveillance and security.: Technological politics and power in everyday life*. Monahan, Torin (ed.), Routledge, Taylor & Francis Group, New York, London, 2006. s. 209-224.
- MacKinnon, Rebecca (2012a), Internet activism. Let's look at the specifics. [Link](#)
- MacKinnon, Rebecca (2012b), *Consent of the networked : the world-wide struggle for Internet freedom*. New York : Basic Books, 2012.
- Manyika, James & Chui, Michael & Brown, Brad & Bughin, Jaques & Dobbs, Richard & Roxburgh, Charles & Hunf Byers, Angela (2011), *Big data: The next frontier for innovation, competition, and productivity*. May 2011. MacKinsey Global Institute.
- Noam, Eli (2011), *International media concentration (Draft)*. Columbia Institute for Tele-Information, August 2011. [Link](#)
- Nunziato, Dawn C. (2011), *How (Not) to Censor : Procedural First Amendment Values and Internet Censorship Worldwide* *Georgetown Journal of International Law* (2011), Vol. 42, Issue 04, pp. 1123-1160
- Verclas, Katrin & Dunn, Alix (2012), *Safer mobile use is key issue for journalists*, May 2, 2012. CPJ Blog, Committee to protect journalists. [Link](#)
- Puddington, Arch (2011), *Freedom in the world 2011: The authoritarian challenge to democracy*. In: *Freedom in the world: The authoritarian challenge to democracy. The selected data from Selected data from Freedom House's annual survey of political rights and civil liberties* Freedom House, 2011. [Link](#)
- Reporters without borders (2011), *The 10 most dangerous places for journalists*. Published 21 Dec 2011. [Link](#)
- Solove, Daniel J. (2004), *The Digital Person. Technology and Privacy in the Information Age*. New York University Press, New York, London, 2004. [Link](#)
- Turow, Joseph (2011), *The Daily You*. Yale University Press, 2011.
- Zuckerman, Ethan (2010), *Intermediary censorship*. In: *Access controlled: The Shaping of Power, Rights, and Rule in Cyberspace*. Ed. by Ronald Deibert, John Palfrey, Rafal Rohozinski, and Jonathan Zittrain. The MIT Press, Cambridge, Massachusetts & London, England, 2010. [Link](#)
- Wikipedia - Concentration of media ownership. [Link](#)
- Päivikki Karhula. Researcher, FAIFE Committee member

10. Additional information & contacts:

- Kai Ekholm, library director, chair of FAIFE. Email: Kai.ekholm@helsinki.fi
- Reijo.savolainen, professor, School of Information Sciences, University of Tampere, Finland. Email: Reijo.savolainen@uta.fi
- Päivikki Karhula, School of Information Sciences, University of Tampere, Finland. Researcher. Email: paivikki.karhula@uta.fi

11. Project on social media:

- Book club: [Sensuuria](#)
- Facebook: [Sensuuria](#)
- Twitter: [Sensuuria!](#)