## **Digital Objects and Research Practices**

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Work Group 2

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Research Project 7 - Security

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This research is about encrypted messages and the security of social networking. Moreover, it reflects on the practices of the encryption of messages and own practices with the software of mailvelope and Ghostery.

The encryption works through a public key server. This means that it allows a person to use an email address to download the message. In order to send and receive encrypted messages, the key is shared. For instance, the research had to install mailvelope, a software that enables users to interact in an encrypted social network. The software is connected to a google account, which then can be used to submit a mail address. In this assignment, the research had to mail to <a href="mailto:digitalobjects2019@gmail.nl">digitalobjects2019@gmail.nl</a>. The mail address provided an encrypted mail that provided the following message when decrypted.

Here is your sentence:

David Bowe (born January 4, 1964) is a character actor in American movies and television. His best-known role is that of "Weird Al" Yankovic's sidekick, Bob, in 1989's UHF.[1] His other film credits include A Few Good Men (1992), Made in America (1993, starring Whoopi Goldberg), Heavyweights (1995), The Rock (1996), Kicking & Screaming (2005), and Rubber (2010).

Figure 1: Message sent by the teacher assistants

PGP stands for; Pretty Good Privacy, this allows for a personal key to assert that the specific key is compatible for the other user. It is an email encryption program, that allows for third parties not to be able to access the text within the mail. Therefore, it is a means to send confidential documents and maintaining privacy (Zimmermann 2019). Philip R. Zimmermann states that "PGP empowers people to take their privacy into their own hands" (Zimmermann 2019 184). The following two keys were shared, which enabled the practice of encrypted messaging:

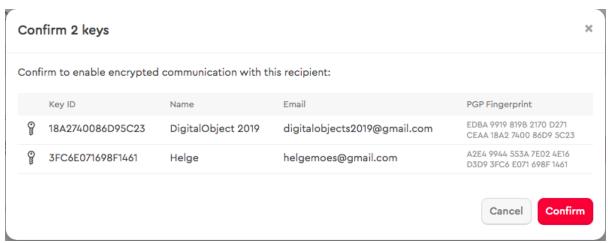


Figure 2: key ID's of the mail addresses

Figure 2 shows how the communication is encrypted between the personal mail address and the mail address of the assignment. The PGP fingerprint is the unique specification of the identity, as to show to whom the message is being sent. The key ID shows the keys that are connected to eachother as to enable the decryption of the message.

Public key servers can be used to conduct social network analysis. A social analysis is a method which is used to measure the social interaction or relation between structures. For instance, there are analysis on the activity of the government that are in all probability penetrating privacy of ordinary people. Through public key servers, a research is enabled to conduct an examination of the governments interference on the privacy of people. In this case, it is a means to conduct research.

Dark Web Social Network (DWSN), is a means for social networking only through the equipment of a certain program. This is also a form of encryption, it allows an absence of the generic constraints and affordances of social networking and it enables freedom from state oppression (Gehl 2014). This social network allows for the everyday computer user to go on the internet without running the risk of being caught downloading illegal software. Programs such as Ghostery, make it possible for ordinary people to see whether they are being traced on a certain site and to block these third parties when desired.

The software of ghostery was used on three websites: YouTube, Facebook and Wikipedia. These sites are predominantly personally used, therefore it is intriguing to assess whether these sites track my personal use of them. Moreover, what these sites have in common are that they all are huge companies or organizations that support the use of them. The following screenshots show the sites supported by the software of ghostery:

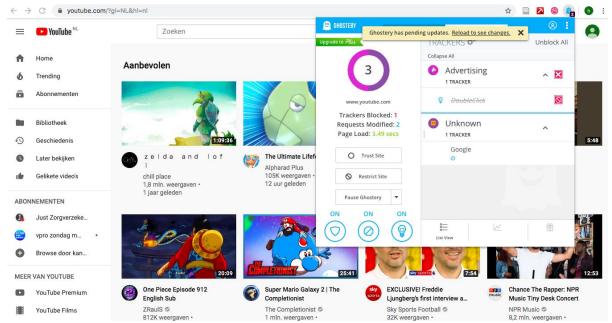


Figure 3: Ghostery on YouTube

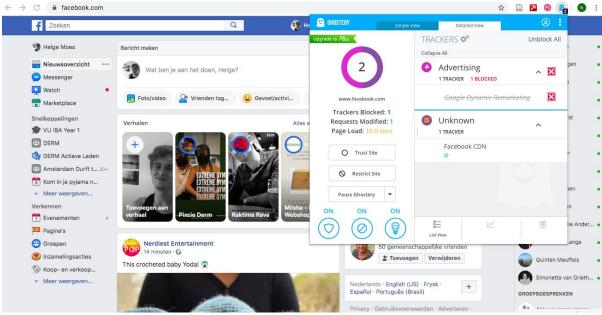


Figure 4: Ghostery on Facebook

Figure 3 and 4 both show advertising; these type of trackers collect data on certain advertising to appeal to the preference of the user. In this case it was Asos that was collecting the data on Facebook and on YouTube it was the DoubleClick that was collecting data. The unknown factor was Google, since the google account was used on YouTube and for Facebook is it was Facebook CDN, this is in all probability the data tracker that accumulates and filters the use of the content on the personalized account. This allows these both platforms to sell the data or enable for marketing campaigns to thrive on the platform by promoting their content or products.

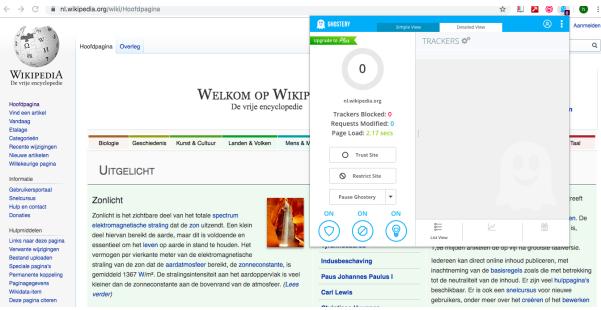


Figure 5: Ghostery on Wikipedia

However, despite the fact that most organizations track the use of the site, Wikipedia does not track the personal use of their resources. Wikipedia is also an organization that consists out of donations by their users. In this case, Wikipedia would not have use to sell the data which is accumulated from the user, since it does not rely on revenue from third parties.

The affordances of anonymous networking are that it keeps the privacy of information, whether it is personal or confidential. The user does not have to allow for a third party to be able to access the information of social networking. Therefore, the affordances give the power of data to the user again. In this case net is control and not freedom (Galloway 2004). A computer is a textual medium, it has its own technological language, which is code (Galloway 2004). Code is useless when it has no meaning or purpose. Yet, code is usually linked to some sort of human interaction. This human interaction is the meaning of code. Therefore, it is inevitable for big organizations such as Facebook and YouTube to pursue information on their users by the use of trackers. Since social network is fundamental for their sites. Data and information allows for knowledge of the users, which enables control over the human interaction when the data is intercepted.

## References

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