Data Journal 3

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1   Introduction

In today's world, the development pace of new technologies is dependent on the amount of data people produce each day. The more data can be produced, the faster can be new algorithms trained. Yet, there might be opposite opinions arguing for actually limiting the production of data. The main objective of this journal is to demonstrate that the core question to ask is not "How can individuals limit their data production?", but rather "How can individuals produce data in a secure way?"

2   Anonymity as a way to freedom

Generating less data essentially means to give out less publicly available information to others on the Internet. As a consequence, there are less pieces of information for a complete picture about a given entity, making it harder for anyone to misuse this picture. However, the picture is still existent. Thus, the goal should not be limiting production of data, but rather anonymising produced data in a way that it can not be associated with the original source.

3 Staying anonymous on the Internet

3.1 How are data produced?

Data are produced through devices. More specifically, through applications stored on these devices. Most efficient way to become anonymous on the Internet depends on individual's own habits such as percentage of smartphone versus laptop usage. For the purposes of this journal, a laptop with a Google Chrome web browser will be used as an example since it is a very common combination for a student.

3.2 What data are produced?

Staying anonymous on the Internet firstly means knowing what to hide. In order to find out, it is needed to use proper tools. An example can be made on the website webkay.robinlinus.com which can be used as a tool to identify what information user's web browser reveals.
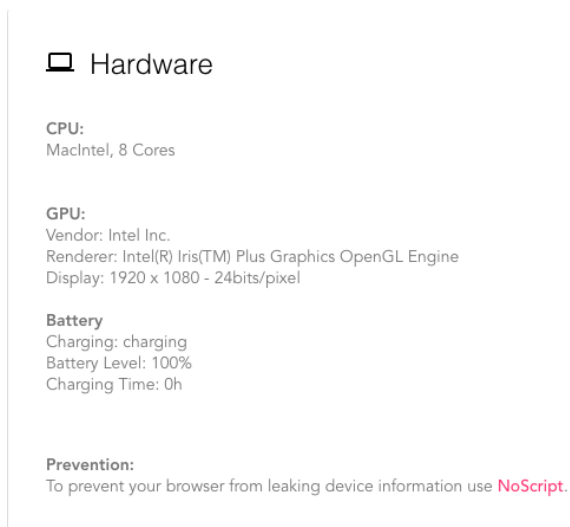

Figure 1: Part of revealed information using Google Chrome web browser

3.3 What tools to use in order to hide revealed data

3.3.1 Defining a problem to solve

There are many privacy tools in the market that claim to solve all kinds of problems. Therefore, it is helpful knowing a concrete definition of a particular problem which needs to be solved by a given tool. In the case of a web browser, in particular Google Chrome, the analysis showed that it reveals very personal information from user's hardware specification through IP address.

3.3.2 Testing and evaluating possible solutions

Despite knowing a concrete definition of a problem, there can still be many options left. For staying anonymous using the browser Google Chrome, it can be possible to for example use either *Virtual Private Network* or a completely different browser called *Tor*. In order to evaluate the best one, it is needed to test them and see how they fit within a day-to-day workflow of a given user. For example, Tor web browser is great at making user completely anonymous, yet it lacks speed. In a contrast, VPN is not as anonymous as Tor, but user does not have to sacrifice on speed since VPN can be used in a combination with Google Chrome.
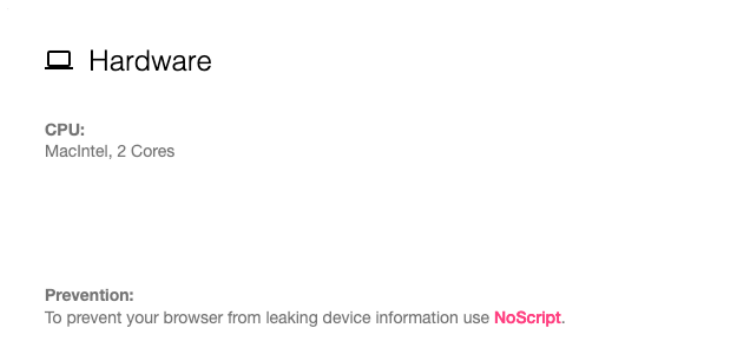

Figure 2: Part of revealed information using Tor web browser

3.3.3 Adopting chosen solution

After decision is made, the main and hardest part comes: adoption of the chosen technology. It is the hardest since it requires individual to overcome own habits and learn new ones. For instance, due to its speed, Tor browser requires more patience as well as time to get a response. Moreover, certain websites ban Tor by default, thus forcing its users to use another browser.

4 Conclusion

Data is the building block of today's digital economy, therefore individuals should not be encouraged to produce less data. Rather a different approach should be taken, asking how to produce more data, but in a more secure way. One of the potential key answers is to anonymize produced data. However, producing anonymized data would require whole society to change its habits. There are essentially two ways to do so. First, to accept certain technology as a standard. Second, students from a very young age should be taught these new standards, thus translating them into habits. This change is not only important for the future economical prosperity of countries, but it would also ensure that freedom on the Internet is sustained.