# When your eyes betray you: is virtual reality too close for comfort?

*With the dawn of immersive virtual reality (VR) technologies, data-collection is taking another leap toward recording our subtlest physical reactions and even our emotional states, writes Finn Lützow-Holm Myrstad, Head of section, digital services and electricity at the Norwegian Consumer Council and EU Co-chair of the Infosoc Committee of the Transatlantic Consumer Dialogue (TACD).*

Through the use of VR-devices fitted with speakers, iris-scanners, movement sensors, and other devices that record movement, VR can create a plethora of interactive experiences. You can play immersive games, communicate with friends in virtual spaces, work out, learn about other people's lives, and so on. The technology can also help us gain insight into situations and environments that would otherwise be out of reach, for example through The Guardian's VR-experience of being held in solitary confinement.

As with many other digital technologies, the development of VR is also driven by the potential for data collection and harvesting. Data collected through VR-devices is used to calibrate and improve the technology, but also as an alternative revenue stream in the form of marketing purposes. Extensive collection and exploitation of consumer data has been the norm online for many years already, but wearable technology such as VR allows for the harvesting of subtle and potentially extremely intimate information. For example, HTC recently introduced VR-enabled advertisements that tracks eye-movements in order to see whether users are "engaging" with the content.

**Our eyes betray us**

One of the most innovative catalysts for the evolution of modern VR-technology is the development of complex eye tracking. This lets the devices register what we are looking at, and where we direct our focus. For example, this allows a VR-game developer measure what elements are likely to divert a user's attention. Our eyes are quick to reveal our motives, what we are looking at and how we react. This is also a marketers' dream, because it makes it easier to measure the effectiveness of advertising, if they tempt us, and if they prompt us to make a purchase. And eye scanning can easily reveal sensitive personal information regarding our sexuality, political views or religious beliefs, without the user ever being aware.

> *"Eye tracking lets you see how consumers react to different marketing messages and understand their cognitive engagement, in real time. It minimizes recall errors and the social desirability effect while revealing information conventional research methods normally miss."*
>
> https://www.tobiipro.com/fields-of-use/marketing-consumer-research/

**Combined data may reveal a lot about you**

Technology giants such as Apple, Google, and Facebook already know a lot about us. They are all investing heavily in VR-technologies, through projects such as Oculus, Facebook's VR-device. Similarly, in 2016 Google acquired the eye-tracking technology company Eyefluence. The VR-developer Suzanne Leibrick held a fascinating presentation about these issues at the technology-conference SXSW in March. Leibrick argues that VR-technologies allows these companies to know us better than we know ourselves, to an unprecedented degree. They are able to predict,

with potentially even more accuracy than before, what we think, how we feel, and how we will act, even before we are aware of it.

The Norwegian Consumer Council (NCC) have already expressed concern for how enormous data sets can be used to discriminate consumers, for example through individual pricing, manipulation, or by restricting access to insurance. With the potential for subtle data collection inherent to VR-technology, we must keep close tabs on the development of the technology in the near future. The NCC has therefore also published a list of ten consumer-, privacy-, and security-demands for consumer-friendly digital services.

## What can be done?

Virtual reality is a technology with many potential and exciting possibilities that will undoubtedly become widespread as the devices improve and the prices drop. Therefore, it is crucial that the companies behind VR-technologies are transparent about how they collect data, how the data is used, and what the retention and deletion procedures are.

It is also vital that regulatory boundaries must be in place to restrict the kind of information that can be collected, and the purposes for which this data can be used, and that regulators are up to date on the technology and the business models that lay behind. Let consumer protection and privacy become a part of the technological development, so that we can remain secure when we immerse ourselves in new virtual realities.

*This post gives the views of the authors and does not represent the position of the LSE Media Policy Project blog, nor of the London School of Economics and Political Science.*

June 13th, 2017 | Data Protection, Featured | 0 Comments