

Synoptic Halo

A Tool for Reverse-Monitoring Data Collection

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Our daily lives create digital data that is monitored by the digital panopticon. By exposing ourselves through various smart digital devices, social media, and apps, we are unintentionally contributing to this surveillance state. Moreover, the rapidly growing Internet of Things ecosystem is ending the era of privacy, and the development of big data and artificial intelligence has already allowed a hyper-connected era between humans, things, space, and machines. The conventional view of privacy maintains the right to be free from interference or infringement. In the digital panopticon, however, it is necessary to have an accurate understanding of personal information, self-determination, and the monitoring of data-using corporations. Many IT companies are accumulating data under the pretext of consumer conveniences, such as personalized services and advertising. This data raises concerns about the possibility of a balance between personalization services and privacy. The historical strategy of controlling corporations through pressure from state institutions cannot alleviate the side effects of digital society.

Disclosure of data use allows for reverse monitoring and reduces the vertical dynamics of the digital panopticon. This project develops approaches for real-time visualization of privacy issues in smart devices that watch and listen to users and store user data. A device designed to read data flow and show the amount and content of collected information in an IoT environment can reveal the environment's data use. Through developing this visualizing device, this study aims to draw user attention to personal data and further explore opportunities to monitor companies' collection and use of data.

This project explores the self-monitoring tools of data collecting for data human rights. I tried to integrate a physical product, data visualization, and app design. However, there were limitations due to the lack of technology and various user data in automatically classifying data from IoT devices such as Specific Identification, Assembly Identification, Sensitive Information, and Behavioral Information. To solve this problem, I will continue to explore the technical aspects and improve the prototype by applying it to various users.

