I've Got You Under My Skin: Anticipating and mitigating the use of connected implantable devices in gender-based violence

Toby Shulruff
tshulruf@asu.edu

Connected implantable devices have the potential to facilitate gender-based violence (GBV). Governance of this emerging technology may mitigate some potential harms. This presentation will illuminate challenges and suggest the potential of Public Interest Technology to govern emerging technology, through the example of connected implantables and GBV.

The Internet of Things (IoT) consists of devices that connect to each other and larger networks, on a scale from the global to the individual. Connected devices implanted in the human body are a niche subset of the IoT, an Internet of Us (IoUs) that stands to change the way we experience our daily lives, and how systems, companies, and governments "know" and "see" us. Sociotechnical imaginaries of the IoUs are both utopian and dystopian, both enticing and frightening.

The rapidly emerging IoT market has not consistently included a careful approach to privacy or security (GAO, 2017). Risks and harms demonstrated by the misuse of consumer household IoT devices in a GBV context suggest the capacity of IoUs devices to facilitate interpersonal surveillance and control (Tanczer, et. al., 2018). The proposed uses of IoUs devices include facilitating access to locations or services, monitoring vital signs, or regulating mood, perception, memory, or physical state. If compromised or controlled by an abusive person, these devices could cause serious harm for victims of GBV.

There are considerable challenges to governance of the IoUs. Harms from emerging technologies are often framed as "unanticipated consequences." There is not yet empirical evidence of the misuse of IoUs in GBV. If and when we see IoUs misuse in GBV, it need not be an unanticipated consequence. If it is anticipated, perhaps risk can also be mitigated. The potential to shape technology such as the IoUs is greater earlier in development, in the upstream phase. However, Collingridge's dilemma proposes that there is also a higher level of uncertainty in the upstream, compared with later phases of technology development (Ribeiro, et. al., 2018). There is currently a low social acceptance of implantables beyond medical use (Rotter, Daskala, and Compañó, 2008). Opposition in the extreme includes proponents of conspiracy theories who may even threaten researchers. Despite the challenges, and because of the potential harms, we should nonetheless attempt to govern the IoUs.

Public Interest Technology builds on Responsible Innovation to call for anticipation, inclusion, and reflection to shape the IoUs (Fisher, 2020). Anticipation may be informed by analogous cases drawn from smart home technology and conventional technology used to facilitate GBV. Efforts must be inclusive of experts and publics. These efforts should emphasize a reflexive evaluation of priorities and values underlying IoUs development.

While seemingly an edge-case, the misuse of IoUs devices poses a growing risk of harm for victims of GBV. Additionally, lessons learned from an exploration of governance options for the IoUs can be applied to other emerging technologies.

References

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