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The Internet of Things, privacy, and the need for public discourse

The Internet of Things (IoT) is a self-configuring and adaptive system consisting of networks of sensors and smart objects whose purpose is to interconnect “all” things, including every day and industrial objects, in such a way as to make them intelligent, programmable and more capable of interacting with humans.

- IEEE, Internet of Things Technical Community (2014)

From Barack Obama’s recent *Consumer Privacy Bill of Rights* initiative (US Intellectual Property Enforcement, 2012), to news reports that major corporations and government agencies (e.g., NSA, Google, AT&T) actively track and store swathes of personal information (e.g., emails, telephone records, social network activity; Goo, 2006), it is becoming abundantly clear that privacy issues borne from emerging technology will be a defining issue for the 21st century. And yet, this does not even consider the impact of the emerging Internet of Things (IOT) described above by IEEE’s Internet of Things technical community (2014). In 2013 the Federal Trade Commission held its first Internet of Things Workshop, during which attorney Lee Tien who works for Electronic Frontier Foundation (EFF) described the Internet of Things from a legal perspective as an “infrastructure of surveillance.” However, much of the conversation about security and privacy within the context of IoT design has centered on technological design to minimize economic risk (e.g. data breaches/loss, worker displacements, inventory management, reliability, etc.), and has not focused on risk/impacts on social values such as preserving self-identity, community cohesion, and emotional well-being, nor broader constructs such as freedom, liberty, and equality. Efforts that have been taken to address “privacy” and the IoT have not only excluded these types of factors from the conversation, they have also sidelined ordinary citizens from providing substantive input into the development of future strategies for privacy protection. This creates a situation in which *industry* is primarily responsible the sociotechnological re-construction of privacy in a way that may or may not reflect the social values of the communities in which the IoT will be embedded. This paper argues that unless the stakeholders currently involved in the design and implementation of IoT devices and infrastructure, such as policy makers and industry engineers, meaningfully engage publics in their design process, the IoT will be apt to maximize economic benefits for industry, but will be unable to maximize benefits or minimize risks to societies at large. This paper also examines how narratives constructed around and about the economic value of the IoT further contribute to this divorcing of publics from IoT architects and isolate IoT design from legal and political

scrutiny. Proposals for establishing an avenue to achieve “common ground” from which both public values and industry needs can be aspired to are also presented.

References

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