

Privacy and Economics An introduction to the mini-track at HICSS 2019

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Abstract

Privacy and Economics are two concepts that needs to be looked simultaneously. The digital service industry has for years built up a business model around collecting, analyzing and selling information from private users. This has included both personal data and behavioral data to enhance and target marketing and secure profits. With the General Data Protection Regulation (GDPR), this business model is challenged and users are now in principle able to control and manage their personal information themselves. This mini-track discusses the relations between privacy and economics and the challenges to the established business models in the US and Europe.

1. Introduction

Over the last years, it has increasingly become clear to users that digital service providers are making money of their data and their usage of the digital services [1]. Cookies that gain access to personal information and the collection and selling of private data to third parties are a reality. As responses from service providers to the European General Data Protection Regulation [2] that came into force in May 2018, users are met with new cookies and an option to manage their information flow [2]. However, this protection of privacy comes with a price; the implementation of the GDPR has caused companies to spend more than 1-10 million Dollars in preparation to comply with GDPR [3]. In the UK estimates say that the sector dealing with collecting and analyzing data generated 4.8 billion Pound in 2016, [3]. The link between privacy and economics is clear.

2. What is Privacy Worth?

Trying to get an overview of what privacy is worth different perspectives are necessary – the users and the service providers.

Different analyses have tried to estimate how users of digital services value the protection of their personal data and whether they will have an interest in getting paid for their private data. Some studies ([4]; [5]) show that users are comfortable with sharing private data; also, with third parties in specific situations where they for example trust the institution they start sharing personal data with. Other studies ([6]; [7]; [8]) find that users have an interest in selling private data. Acquisti et al, [9], raise questions on whether notice and consent solutions (such as cookies where the user can self-manage the settings on privacy) may be effective and sufficient to guarantee consumers' privacy. Research so far cannot clearly conclude on the economics of privacy seen from the user side.

The situation is different if we take a look at digital service providers. The general privacy-economics ecosystem between the user data, the service provider and third parties are a rather well-established ecosystem with business models that have existed for years. Over the years, the service providers and third parties have invented rather creative methods to collect user data, often without the knowledge of the user (see for example [10]). A study, [11], estimated the costs of hospitals in Texas to adopt opt-in policies for tracking health records for children in the state. The estimate was 1.4 million dollars or 2 Dollars per child born in the state.

With the GDPR new discussions have come up on the relation between privacy and economics. Studies have calculated costs for service providers to loose the availability of the private data; London Economics, [12], estimated that for EU as a whole it could mean a loss of 58 billion Pounds or 1.3 million jobs lost.

3. The Mini Track

This mini track discusses privacy and economics and the differences between the US and Europe on this area. This includes discussions on economic perspectives on the regulation in Europe and across the US as well as user right to privacy with respect to collection, retention, analysis and transfer of personal data. The topics include:

- Design and implementation of novel Privacy Enhancing Tools (PET) as well as security mechanisms.
- Usable Privacy, discussing methods and techniques to analyze and visualize privacy policies in user interfaces to create awareness management of the user's private data.
- The personal data as an economic asset who it belongs to and what economic challenges are seen with GDPR and other regulations.

At the mini track 4 papers are presented:

- A Two-Pillar Approach to Analyze the Privacy Policies and Resource Access Behaviors of Mobile Augmented Applications (D. Harborth, M. hatamian T.B, Welderufael and K. Rannenberg). The paper discusses how Mobile Augmented Reality applications' main privacy risks.
- Making Sense of the General Data Protection Regulation – 4 Categories of Personal Data Access Challenges in Insurance Organizations (C. Gundstrom, K. Väyrynen, N. Livari and M. Isomursu). This paper discusses how the GDPR has been interpreted by participants of European insurance companies.
- The Unlikely Siblings in the GDPR Family: A Techno-Legal Analysis of Major Platforms in the Diffusion of Personal Data in Service Ecosystems (C. Kurtz, F. Wittner, M. Semmann, W. Schulz and T. Böhmman). The paper discuss privacy preserving solutions in service ecosystems.
- ATHiCC: An Anomous, Asynchronous, Serverless Instant Messaging Tool (D.F. Balchasan, M. Ozaniak, Y. Schwartz, N.S. Steffensen, S. Khajuria and L. Sørensen). The paper suggests a protocol for privacy

protection of private messages by use of Tor.

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