

Privacy is a long-existing and dynamic concept. In the 1970s, the period of ever increasing concerns about personal data stored in the computer systems began. With the advent of computers it was realized that two other dimensions: economic incentives (in the privacy-aware environment people only trust organizations that care about customers' privacy) and the privacy legislation enforcement (privacy activists force the legislation to develop and to be enforced). Economic incentives and the strong privacy legislation will force proliferation of the fourth dimension-privacy-protecting technologies. Finally, the crux of the matter is how much do individuals care about privacy?

The meaning people embed into the privacy concept changes inevitably following the evolution of society and technology. The importance of privacy grows over the years since personal data become easier to acquire and to expose, which increases threats to privacy. Moreover, the consequences of privacy breaches become more and more tangible.

The advent of new technology led to the growth of privacy concerns. In 1890, the highly cited privacy-related paper "The Right to Privacy", written by Warren and Brandeis, emerged as a response to the privacy concerns about new technology, allowing publication of photographs in newspapers. In this paper, the authors described privacy as the individual's "right to enjoy life" and "the right to be left alone" [1].

In the 1970s, the period of ever-increasing concerns about personal data stored in the computer systems began. Prior to the Computer Age, people relied on legislation and social norms to protect their privacy. With the advent of computers it was realized that the law poorly protects individuals against misuse of personal data processed by new technology. Legislation was either obsolete for a new situation, or simply there was no pertinent legislation [2]. It is urged a need to establish standards for privacy protection. The problem was approached seriously, at the political level, and a number of guidelines and standards emerged addressing privacy protection.

operating system version, unique device identifiers, mobile network information including phone number);

- Details of search queries;
- Telephone call and SMS logs;
- IP addresses;
- Location data (GPS signals from a mobile device, nearby Wi-Fi access points and cell towers).

The Google privacy policy change provoked a rising tide of debate

economic incentives and the privacy-legislation enforcement. First, in the privacy-aware environment people only trust, and, as a result, bring their money to, organizations that care about their customers' privacy. Second, privacy activists force the privacy legislation to develop and to be enforced: the increasing number of privacy activists expedites this inevitable process. The privacy legislation, in its turn, also induces additional economic incentives by imposing fines for privacy law breaches. Economic incentives and the strong privacy-legislation, supported by the privacy-conscious society, will force proliferation of the fourth dimension – privacy protecting technologies.

controller will also have to inform third parties, processing such data, about the request to erase the data

- 5) Organisations have to notify Data Protecting Authorities and individuals affected about the data leaks within 24 hours.

The proposal endeavors to address the differences between the EU and the US approach to privacy. While the EU attempted to create coherent privacy law across all its members, the US heavily relies on self-regulation and responsible behavior of its citizens [2]. The adoption of the proposal will guarantee that the EU citizens' personal data will be used according to the EU privacy regulation, even when they processed by the US corporations.

The rapid advancement of ICT has changed the way data are collected, stored, processed and, of course, protected. Thus, on the one hand, new technologies cause the escalation of privacy concerns in society. On the other hand, technologies could put users back into control over their personal data. Generally, people are not interested in privacy as an abstract concept. The transparent control of the personal data exposure to others – this is what people most likely desire and this is what technologies are capable of offering.

No technology *per se* implies that our privacy should be invaded. Any system should be designed with privacy in mind and should use technology to protect our privacy. The privacy problem is not a question of technologies being unable to protect privacy, but an issue of the legal and economic nature. Bodies, which design systems and implement technologies, should have economic and legal incentives to enable privacy protection. The economic stimulus is rooted in customers' trust: the more customers trust an organization, the more profit an organisation makes. The surveys show that e-commerce loses an essential amount of profit due to the users' privacy-violation fears [2]. On the legal side of the problem, a law is needed which encourages organisations to protect users' privacy.

In author's opinion, the privacy problem should have a four-dimensional solution illustrated in figure 1.

The first dimension involves privacy awareness and education. Statistics show that we are still to create the privacy-conscious and privacy-educated society. According to the survey the majority of Google users are ignorant about the forthcoming policy change [10]. Nearly sixty per cent of social networking websites users have never read privacy policies. People are not able to protect their privacy if they are unaware of the privacy regulation, about their privacy right and about the way their information is used.

The first dimension promotes the other two dimensions –

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