What role can digital technology play in both supporting and eroding personal pri...

Is Privacy dead? What role can digital technology play in both supporting and eroding personal privacy?

Privacy includes several contexts for individuals. Berman and Mulligan (1998) discusses three aspects of individual expectations to define the term " privacy". The first aspect is the expectation of anonymity, which was defined as " The Right to Be Let Alone" by Warren and Brandeis (1985) in the American law: The Right to Privacy. Individuals would expect an environment where no one can access their personal information in no matter physical or digital world. Another one is the expectation of control over information. Individuals would expect that professionals and companies would only collect the customers' information for the purpose of providing services and they would not use or disclose the information for other commercial purposes. And the third expectation is about the confidentiality of personal documents, including e-mails and medical records. Individuals would expect that they could feel free to conduct online or offline activities without others disruptions. However, these expectations are being challenged by the digital technologies, which keep collecting personal information in our daily lives. This report will focus on the impact of the digital technologies on the privacy.

Is Privacy dead?

Some researchers show pessimism about the privacy under the challenge of new data technologies. They believe that the efforts of legislation of the new surveillance tools are weak, because the technologies develop quickly and it is hard for laws to response to the rapid changes. However, Froomkin (2000) states that technological change has not yet moved so fast to make legal

approaches useless. He believes that laws can still restrict the data collection and help the data protection, which will contribute to the privacy protection. DeVries (2003) shows that although the adaptations of the new technologies on the privacy issues are still in the initial phase, the progress is currently underway. In the last few decades, a great amount of new laws have been made on the new digital technologies, new business practices and new international mandates. These approaches are contributing to the modern privacy issues, ensuring that the digital privacy is not lost yet.

The impact of the digital technology on privacy

The development of digital technologies has greatly influenced privacy. Berman and Mulligan (1998) provided three main changes on the privacy protection when digital technologies such as internet come in. These three changes include: (1) increased data creation and collection; (2) the globalization of information and communications; and (3) lack of centralized control mechanisms (Berman and Mulligan, 1998).

Firstly, the digital technologies will increase the data creation and collection in both physical and virtual world. Transactional data would be created in many daily-life activities, such as making a phone call, sending an e-mail and purchasing with a credit card. These kinds of data will be captured by the internet and become available for reuse and disclosure. This transactional data is sometimes important because many organizations will require this data to provide value and services to their customers. However, if the purpose of reusing or disclosing the transactional data is beyond the operation, it will be a great problem for individuals because the transactional

data can reflect on an individual's daily activities. As the data is increasingly created and collected, it is becoming harder for individuals to protect their privacy.

Secondly, the introduction of the internet also enables individuals to access information from different countries. For example, individuals can apply accounts in a foreign country company through internet to enjoy cross-nation services, such as ordering products from other countries. However, it also brings difficulties for governments to conduct laws of privacy protection across the national borders. When individuals are facing with fraud or information leakage in this situation, it is hard for government to find specific laws or policies to protect the privacy.

Another issue is the lack of centralized control mechanisms. As mentioned above, the individual information can flow easily across different organizations or even countries in the digital world. Individuals even have no ideas on what information has been collected or how it is being used (Solove, 2001). Governments find it difficult in developing and enforcing effective rules to manage the new technology issues. It requires the governments to have consensus on the meaning of privacy protection and implement a centralized solution to govern the information.

As we recalled in the first part of the report, the privacy is defined as the expectation of anonymity, control of information and confidentiality. The challenges stated above have prevented individuals from meeting these expectations.

What role can digital technology play in both supporting and eroding personal privacy?

Although the digital technologies have brought the above three issues on the privacy protection, they also play a positive role on preserving the privacy. For example, Doosetty, Kodakandla, Ashok, and Sriramoju (2012) have showed a secure cloud storage system, which is the application supporting the personal privacy based on the computer technology. Other innovations such as Big Data and blockchain also play an important role on the data protection, which is closely related to the privacy protection (Bachlechner, LaFors and Sear, 2018).

On the other hand, researchers focus more on the negative role on the personal privacy. The most important influence is the ubiquitous surveillance driven by the internet technologies. As mentioned previously, the transactional data can in some extent reflect on an individual's life, presenting a blueprint of his/her life activities and habits. For example, the emerging technology biometric system that can recognize individuals' faces, and the established GPS system that can be found in smart phones can all provide real time information of an individual's location. Even in the virtual world, the technology called " cookies" will automatically collect users' online activities and provide identifiable profiles of the individuals' behaviors (Rigdon, 1996). The technologies used for surveillance are everywhere, although surveillance is not the initial purpose, no matter in the public places, in the working places or in individuals' own houses.

With considering these issues driven by the digital technologies, governments and others are required to develop legal and social response to address these issues. Firstly, the government should raise the legal approaches to manage the transactional data collection. With the development of the statistic and data mining, the digital footprints that used to be useless are showing their value. There should be legislation of the access of the transactional data, and all the online interactions should be under a standardized management. Secondly, the society should encourage the behaviors and technologies that would limit the collection of individual information. Law is an effective approach but it cannot cover all the aspects. It should be encouraged to develop the tools to protect privacy to limit the users from accessing, reusing or disclosing the personal information. The storage cloud system we mentioned previously is a good example of this case.

In conclusion, there is no doubt that the digital technologies have greatly affected the individual privacy. The digital technologies mostly play a role of eroding personal information and become a great threat of privacy. However, the legislation solution is in some extent making progress, and it limits the access to personal information, ensuring that the flows of the identity data will be under monitor and management. It is also recommended that the government and the society (1) to clarify the aspect of the informational privacy; (2) to develop laws and policies for privacy protection; and (3) to encourage the tools and technologies that help privacy preserving. These recommendations in both physical and theoretical ways reflect on the shortcomings of the existing privacy protection. Although we

are still facing various technological challenges, it would never be too late to conduct legal and social response to the privacy issues.

Referrence

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