http://dx.doi.org/10.7236/JIIBC.2014.14.4.227 JIIBC 2014-4-32

인터넷에 올라와 있는 개인정보의 자기결정권과 통제권에 관한 연구

Study on Decision-making and Control of Personal Data Posted on the Internet

윤경배^{*}

KyungBae Yoon^{*}

요 약 인터넷 기술이 발전되고, 보편화 되면서 상업과 자본의 대형화가 이루어져 대형 포털 사이트들이 등장하고 성장하게 되면서 인터넷상에서 시간이 흘러도 삭제되지 않는 개인정보 때문에 심각한 사생활 침해문제 등 새로운 위 혐요소가 제기되고 있다. 특히 마녀사냥 같은 개인의 신상 털기는 피해 당사자가 정상적인 생활이 불가능할 정도의 중대한 문제로 부각되고 있다. 따라서 본 논문에서는 국내외 사례분석을 통하여 개인이 온라인 사이트에 올라와 있는 자신과 관련된 정보 삭제를 요구할 수 있는 권리의 필요성과 국내 도입방안 및 적용에 관한 개선방안을 제안한다.

Abstract Recent development and generalization of Internet technology contributes to the large scale of commerce and capital followed by appearance and growth of large portal sites. As a result, the personal data on the Internet not deleted for a long period of time is a new risk factor, for example, the invasion of people's privacy. In particular, exposing personal data like witch-hunts is a critical issue so that the person concerned cannot carry on with normal life. This study suggests the necessity of the right to request personal data deletion related to a person concerned on Internet sites, a method of introducing the right in Korea, and a method of improving the application.

Key Words : Types of personal data, Exposure of personal data, Right to be forgotten, Right of decision-making, Control

I. Introduction

In the modern society, the development and generalization of informationization technology contributes to the large scale of commerce and capital followed by appearance and growth of large portal sites, for example, Naver or Google. In particular, while

*정회원, 김포대 경영정보학과 (교신저자) 접수일자 : 2014년 7월 25일, 수정완료 : 2014년 8월 8일 게재확정일자 : 2014년 8월 8일 the Internet replaces the functions of mass media, for example, TV, newspapers, and radio, the data recorded on the Internet, which are not deleted and remain for a long period of time raises a serious issue of the invasion of privacy to create a new risk.

People search for their own data on the Internet and find them not properly controlled or deleted, but just

Received: 25 July, 2014 / Revised: 8 August, 2014 Accepted: 8 August, 2014 *Corresponding Author: kbyoon@kimpo.ac.kr Dept. of MIS, Kimpo College, Korea exposed. The personal data recorded on the Internet in the past are exposed to disclose political views and personal works of the relevant person to infer personally sensitive information, or the personal data are used. Witch-hunts for individuals through exposing personal data on the Internet make the person concerned not carry on with normal life. To address this kind of issues, the right to be forgotten is suggested to allow a person concerned to delete information related to himself/herself on the Internet. European nations have positively discussed the legislation for the right to be forgotten, which is also discussed in Korea.

This study suggests understanding and argument about the right to be forgotten, describes Korea's and overseas cases and schemes for solution of the issue, and suggests a method of introducing the right to be forgotten in Korea.

II. Related studies

Warner defines the right to be forgotten comprehensively as 'a regulation for holding records'. Conley defines it as 'a right for deleting a specific record from a permanent storage where the record is stored'. Professor Franz Werro at the Georgetown Law School said it is 'a right for controlling and deleting Internet user's own information left on the web sites'.

The EU says the right to be forgotten is a right of a person who does not process the relevant data and then deletes them if they are not required any more for a legitimate purpose. In November, 2011, the EU specified the right to be forgotten as a right that a person can delete his/her own data completely if they are not needed any more for the purpose when the data were collected.

The right to be forgotten currently discussed in the Korea Communications Commission focuses on guaranteeing SNS users to destroy or delete their own articles or contents previously posted on the Internet. As described above, the right to be forgotten is defined as a right for a person to specify the period for his own data distribution, to request deletion and change thereof in order to enhance the ownership of the data and to protect personal data in the process of creating, storing and distributing them ^{[1].}

Another issue related to deleting personal data occurs when the user concerned dies. The digital memory continued above life and death raises a question about whether to hold or delete deceased person's personal data in the cyber space, who, when and how to delete them. Another question is whether to approve the other myself in the cyber space as an immortal being unlike other organisms, or whether to make it die like a human being. How to be forgotten is now important as well as how to be remembered ^{[1].}

Therefore, it is a right that users can request their own data on web sites to be deleted, and the EU is leading the discussion of legislation for the right ^{[2].}

The service providers just own the right to delete personal data viewed through Internet search, personal photographs left on Facebook, and personal stories left on Twitter after a person concerned dies although the deceased person has the ownership of the data and photographs. Therefore, the data of a deceased person posted cannot be deleted, and a lot of personal data are left on the Internet as they are.

Simple navigation through the Internet results in previous SNS records, bad language or mistakes, personal medical data, deceased person's photographs and blog posting. Although it is easy to delete personal posting, it is really hard to delete the data if third parties or related people copied to post them on their sites. As described above, the right of decision-making or control of personal data is just nominal, and there is thus a global need of legislating the right to be forgotten ^{[3].}

Embodying the right to be forgotten is to ensure the right of decision-making for personal data, and to enhance the control by data owners. Therefore, information and communication service providers have to delete or handle relevant data although they did not produce or edit the data of a specific individual. A third party's deleting specific data violates the freedom of expression which is another basic right ensured in accordance with provisions specified in the Korea's constitution^{[4].}

III. Korea's and overseas cases and suggestion for solution

European nations give more values to personal data than the freedom of expression, and are thus a great supporter for the right to be forgotten. The US, however, worries about the invasion of the freedom of expression because of personal privacy.

1. Europe

The right to be forgotten specified in Article 17 of Protection of personal data in EU (provisional) allows personal data owners to delete and prevent all their personal data from spreading on the Internet. This Article is included in the regulation (provisional) to enhance the right of controlling personal data as illustrated in Table 1.

표 1. EU의 개인정보보호규정(안) Table 1. Protection of personal data in EU (provisional)

No	Description
1	An enterprise or institution should specify the purpose of using personal data and make data owners agree with the purpose from the step of collecting and creating the data.
2	A person responsible for holding the personal data should notify the regulatory institutions and data owners of loss, theft or corruption of the personal data within 24 hours as soon as the person recognizes it.
3	A person responsible for holding the personal data should completely delete personal data when the data owner requests deletion thereof.
4	An enterprise who handles relevant personal data should allow the data owner to move the data to another enterprise if the owner requests the move.
5	Strengthen measures for protecting data owners in lawsuits against invasions of personal data, e.g., selection of class actions and criminal punishment clauses.

The obligation of personal data handlers, for example, portal service providers, is to immediately delete the relevant personal data if the data owner requests deletion thereof in accordance with the right to be forgotten. If it is impossible to delete the personal data, however, they should limit access thereto instead of deletion thereof in the following cases. First, access limit to the data instead of deletion applies if the data owner raises an objection to data accuracy. Second, the data is stored for evidences. The third case is where it is illegal to handle the data, and the data owner objects deletion and requests access limit to thereto. Fourth, the data owner requests sending personal data to another automated data system.

However, the European nations do not apply the right to be forgotten to posting on mass media, and generally approve exceptional applications. The right to be forgotten is not applied to the cases of public profits for the freedom of expression, and the public health sector, to the purpose for history, statistics and science studies, and the case that the personal data should be stored in accordance with other regulations and it is legal ^[5].

2. US

The US extremely worries about the invasion of the personal freedom of expression by law enforcement authorities. This worry originates from the fact that legislation and protection of the right to be forgotten can hit a great blow on business and service provision, and a lot of lawsuits can be raised. This is because enterprises who lead major Internet services including SNS are IT companies based on the US. Facebook founder Mark Zuckerberg said 'I will design personal data currently open to just friends to be viewed by everybody if I make Facebook again'. In the US, the freedom of expression is valued more than personal privacy^[6].

However, users are more interested in handling their own personal data and digital legacies in relation to using the Internet services in terms of their privacy. www.lifeensured.com provides a service for canceling or deleting accounts in service sites after death or if not used any more to address such user's needs^[7].

3. Korea

The Korea Communications Commission is discussing the right to be forgotten to allow SNS users to delete their posting or contents. Unfortunately, this applies just to SNS, unlike in European nations^{[6].}

Although a user can request persons in charge of his/her own personal data to read, change or delete them, he/she has to find the posting with the personal data to request the administrator of the relevant site to delete the data. It is not easy to identify all locations where the data are posted in reality ^{[4].}

Korea's portal service providers will continue to stick to the current policy for deleting user's contents through the relevant person's and family's application and request for deletion, rather than employing more options to delete the contents posted by a person, as Google does. Daum supports the function that its user can select items, for example, blog, to cancel the membership of the site, and then delete his/her own records. SK Communications allows families of a deceased user to delete the records through their application.

While Google's service for managing dormant accounts is to delete some traces, Korea's portal service providers insist that social agreement is needed to enable such a service in Korea^{[8].}

IV. How to introduce the right to be forgotten in Korea

Introduction of the right to be forgotten in Korea needs social agreement and cooperation for the necessity thereof. For balance between the freedom of expression and the right of decision-making for personal data, it is necessary to review the scope of data, deletion and change thereof. The process illustrated in Table 2 is needed for the right to be forgotten ^[9]. Technologies should be implemented to perform the process. This can be achieved by means of the personal data encryption technology which is a general information protection technology, the information expiry technology to automatically delete data after its expiry date, or the DRM technology.

표 2. 잊혀질 권리 수행 과정 Table 2. Embodying the right to be forgotten

No	Description
1	Check the identity of the person who requests the right to be forgotten, and find all locations where the requested personal data are stored.
2	Find all data copies from the original data.
3	Decide eligibility of the right for the request of data deletion.
4	Delete both the original personal data and their copies provided that eligibility for the deletion request is approved.

A technology for implementing the right to be forgotten is being studied by using the semantic web technology which enables users to collect, establish the scope of and use the data related to their personal data. The Policy–Aware Web which is one of semantic web or connected data web studies is closely related to privacy or the right to be forgotten.

The semantic web shown in Fig.1 is a technology to allow data to be shared and connected just within the scope established according to the personal data policy established by the relevant user in the data set through meta data ^[4].

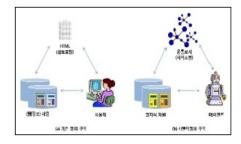


그림 1. 시멘틱 웹의 개념 Fig. 1. Semantic web

This study suggests the following scheme in addition to previous schemes. First, give a specific code to all postings written with one id or from one IP address to develop a system which can internally find out the code to look for and manage all postings of the relevant person as Google's account management system does. Second, blind deceased user's blog or Facebook in order for other users not to be able to view them, and then send the data ownership to the user's family so that the family members can choose whether to delete or keep the data. Third, employ the technology to disable the data to be seen on portal sites where the data owner selects deletion corresponding to the right to be forgotten for a special purpose objectively approved, and to blind the personal data to make them invisible even through Googling.

As these methods are knocked on in practice, it is actively discussed that the deletion which is the right to be forgotten in predictive text input and related search offered by search engine and portal sites. Although there is no case to be implemented so far, Korea Internet Self-governance Organization make policy to delete related search by the request of Naver, Daum, and Nate users when their privacy is invaded and it is not related in public interests.

Although different technologies can be used to back the right to be forgotten, technical implementation of the right to be forgotten will take some time because of security, limitations of current technologies, difficulty in technical processing due to no definite time and scope of the personal data.

As users increasingly want the right to be forgotten while it is hard to embody the right to be forgotten in terms of technology, there are some service providers who delete user's traces on the Internet. However, the service providers cannot sometimes delete the personal data wanted by the relevant user if they encounter some obstacles^{[4].}

V. Conclusion

While online posting is common and the online records remain for a long period of time, distribution thereof is also fast and widespread in this informationized society. As a result, there is another type of risk different from the risks so far. Although easy information storage and spread contributes to people's convenient living, inaccurate data can result in corruption of personal reputation, or invasions of privacy due to changing and reproducing personal data. Therefore, it is essential to embody the right to be forgotten in the modern society. However, it is necessary to think about legal issues and to examine technical possibility for embodying the right to be forgotten.

Korea's legal system does not fully accept the right to be forgotten in relation to deletion of personal data in addition to the right of request to read, correct or delete the personal data. It is necessary to consider whether it is valuable to allow online posting by humans to be forgotten or whether to further enhance the right of decision-making for personal data in the cyber space in terms of the constitutional enforcement. The freedom of expression and the invasion of people's right to know will be an issue involved in accepting the right to be forgotten.

Service models closely related to daily living or privacy protection models in the big data environment will continue to be studied in Korea and other countries^[10]. There is also a need of studying the right of decision-making and control for the right to be forgotten. Internet users should manage and delete their positing and comments on the Internet from time to time. It is necessary to study how to make it impossible to search names or other personal data to filter them out, or to allow users to delete their own posting in a simple process if it is impossible to filter out all personal data other people search for on the Internet. Another study needed is how to approve the right to be forgotten as an essential element step by step in the society, to establish the scope of personal data to be protected through the right to be forgotten, and to reach social agreement ^{[11].}

References

- Myeongshin Hong, "Attempt toward ideal death of information: Global trend of right to be forgotten", Press Arbitration, Vol. 31, No. 2, Serial No.119, pp. 20–31, 2011.
- [2] http://terms.naver.com/entry.nhn?docId=2066601&ccid=50305&ccategoryId=50305
- [3] http://www.mt.co.kr/view/mtview.php?type =1&no=2013050711374597651&outlink=1
- [4] KISA, "A study on plan to reflect 'the right to be forgotten' in the legislative system", 2012.
- [5] KISA, "Implementing Differences of Right to be Forgotten Between EU and Korea – Comparative Analysis in the Perspective of Personal Information Protection", Communications of the Korean Institute of Information Scientists and Engineers, Vol. 30, No. 10, pp. 34–41, 2012.
- [6] Yongtae Shin, "Study on right to be forgotten and right to know", KSIE(Korea Society of Internet Ethics), Vol. 01, No 01, pp. 10–11, 2012.
- [7] Young Bae, "Spreading life log and right to be forgotten", Internet and Information Security, Vol. 03, No. 04, pp. 86–99, 2012.
- [8] http://www.dt.co.kr/contents.html?article _no=2013041502010531789002
- [9] ENISA, "The right to be forgotten between expectations and practice", 2012.
- [10] Jangmook Kang, You-Jin Song, "A Study on Structural Holes of Privacy Protection for Life Logging Service as analyzing/processing of Big-Data", The Journal of IIBC. Vol. 14, No. 01, pp.189-193, 2014.
- [11] Minseong Kim, Seongtae Kim, "A Study on Intention to Accept the Right to be Forgotten Associated with Exposure of Personal Data",

Korean society for journalism and communication studies, Vol. 58, No. 02, pp. 307-336, 2014.

저자 소개

윤 경 배(KyungBae Yoon)



- · 1986.02 : 인하대학교 수학과 (학사)
 · 1994.08 : 인하대학교 대학원 정보공학 (공학석사)
 · 1998.08 : 서강대학교 경제대학원 정보기술경제학 (석사)
 · 2003.02 : 인하대학교 대학원 컴퓨터공학 (공학박사)
- ·1986.01 ~ 1987.04 : 한국지엠자동차(주) MIS
- ·1988.05 ~ 1991.12 : LG-EDS(주) 기술연구소
- ·1992.01 ~ 1998.02 : 동부정보기술(주) 정보기술연구소
- ·1998.03 ~ 현재 김포대 경영정보학과 교수
- ·관심분야 : 웹공학, 데이터마이닝, CRM,전사적자원관리 (ERP), 모바일앱앤웹
- E-mail : kbyoon@kimpo.ac.kr