

Information Security..

by Julyeta Runtuwene

Submission date: 07-Jan-2020 04:13PM (UTC+0700)

Submission ID: 1239736441

File name: ntuwene_Artikel_5_Prod_Atlantis_Press_Information_Security...pdf (173.07K)

Word count: 2024

Character count: 10954

Information Security Awareness on Data Privacy in Higher Education

Julyeta Paulina Runtuwene, Revolson A. Mege, Verry Ronny Palilingan, Johan Reimon Batmetan

Universitas Negeri Manado
Manado, Indonesia
john.reimon@unima.ac.id

Abstract—There is always a negative aspect of a technology utilization. Security issues become a serious problem in information technology. The development of information technology makes access to data privacy is very important to note. The purpose of this study is to analyze and measure students understanding of the importance of understanding the privacy policy on public services. The method used in this research is survey method. The survey is done by collecting data of student survey result. This study was conducted face-to-face with the respondents and online. The results of this study indicate that 78% of students who are the majority of respondents realize the importance of private security in public services. Respondents are also aware of the risks that can occur if a violation of the privacy policies of others. Yet 65% of respondents feel unconcerned about their private security. Why? because respondents do not know how to maintain their privacy data and tools that can use which can make the data safe.

Keywords—awareness; information security; data privacy; UNIMA; survey

I. INTRODUCTION

There is always a negative aspect of a technology utilization. This is because the use of technology is widely used and used by the public. In order to remain safe users are advised to build information security awareness well. Security issues become a serious problem in information technology. This can cause serious problems both to the user and to the organization such as the loss of public trust in an organization that loses a lot of money and other criminal acts.

Information security problems are not only solved by buying security products, such as firewalls, anti-virus but need a good understanding of information security. Information security is an asset that we must secure. Therefore, the first step in security is to determine the assets that you want to protect, namely personal information. This study will measure the level of student awareness of information security. Privacy is still a concept that is foreign to many online service users, although this term is often the subject of conversation [1]. Awareness of privacy is also closely related to freedom of expression and security issues. The attitude of not caring and assuming that privacy is not something that is important can be based on ignorance about threats and risks to one's privacy [2].

Some key principles in information security, such as Security Aspects related to three things; confidentiality,

integrity, and availability. All three are often referred to as the CIA. The priorities of these three aspects vary for the type of system and organization that uses it. There is a system that integrity aspects are more important than confidentiality. Other Security Aspects are Non-repudiation, Authentication, and Authorization [1].

There is always a negative aspect of a technology utilization. This is because the abuse of technology is produced and widely used by the public. In order to stay safe, users are advised to build a good information security awareness.

Security issues become a serious problem in information technology.

The development of information technology makes access to data privacy is very important to note. Recognizing the risk of personal information security caused by the behaviour of sharing information on social media or internet networking sites, a lot of research has been done. The results of the study found that Security Awareness, Information Privacy, and the Security were related to Behaviours of Home Computer Users, but the study had weaknesses in analysing the practice of security awareness, information privacy, and security behaviour [3].

The importance of understanding information security in order to maintain privacy data and minimize crime that is now rampant, such as Cyber Crime or cybercrime and other information security issues.

The problem in this study about Low awareness of information technology users, knowledge of information technology users on low data security risks.

The purpose of this study is to analyse and measure students' understanding of the importance of understanding the privacy policy on public services.

II. METHOD

The method used in this research is survey method. The study was conducted by collecting data from student surveys in the information technology education department, Universitas Negeri Manado (PTIK UNIMA). This study involved 51 respondents. This research was conducted directly (face to face) and online (without face to face). The survey is done by collecting data of student survey result.

The method used in this study is: (1) Interview, the interview process is conducted in the campus area, especially to PTK UNIMA students. (2) Survey (Questionnaire), The survey is an alternative method of communication by asking questions to respondents and recording the answers for further analysis. Problems in survey techniques are more related to the making of the questionnaire because it is directly related to the responsiveness of the respondents [4]. The questionnaire is a primary data collection tool by survey method to obtain respondents' opinions [4]. In this survey, the author uses a closed type of questionnaire or uses multiple choices (more than one choice).

III. RESULT AND DISCUSSION

Based on the research method used, data is generated as follows:

The results showed that 58.8% of respondents read the privacy policy in a public service before approving the existing provisions and 17.7% did not read while 23.5% answered hesitantly or read but did not understand the written content [5,6].

Other results found were 41.2% of respondents believed that the security of public services in storing data and personal information, while 9.8% were unsure and 49% were doubtful about the security of public services in storing personal data and information. This means that the majority of respondents still do not believe in data security in public services [7,8].

The results of this study also show that as many as 35.3% of respondents believe the question questions that ask for your consent in the name of data and information security in public services while 53.9% doubt it and 11.8% are not sure. This shows that the majority of respondents in tertiary institutions have not been fully convinced of the questions that ask for advice in a system [9].

The survey results of this study illustrate that as many as 74.5% of respondents are aware of the risks that can occur related to personal information such as being stolen by an authority and can be misused, and only 11.8% of respondents did not realize it while 13.7% felt hesitant. This means that almost all respondents agree that awareness of the risk of data theft by irresponsible parties is very likely [10,11].

The survey results also showed that as many as 90.2% of respondents realized the importance of privacy protection and only 3.9% of respondents were unaware while 5.9% felt hesitant. This means that respondents are very dominant in agreeing that high privacy protection is very important in the use of information technology.

Then the other results found in this study are as many as 60.8% of respondents understand the risk of privacy violations. Whereas 9.8% did not know and 29.4% felt hesitant. This means that the majority of respondents in higher education understand what risks they will face when there is data privacy and security data violation [12].

The results of this study indicate that 78% of students who are the majority of respondents realize the importance of private security in public services. Respondents are also aware

of the risks that can occur if a violation of the privacy policies of others. Yet 65% of respondents feel unconcerned about their private security. Why? because respondents do not know how to maintain their privacy data and tools that can use which can make the data safe.

It is important to increase the awareness of students and the public about information security in order to avoid the risk of losses such as information leakage, misused of personal data, identity falsification, and things that can cause harm to access to public services [13].

Basic steps to maintain privacy and security of personal data: (1) Always check for updates and keep the device clean, as much as possible to regularly update the operating system. Besides updating, you also need to be diligent in cleaning your device from viruses [14]. (2) Use a unique and solid password. Use passwords that are as unique as possible and keep updating at least every three months. Increasingly unique, passwords are increasingly difficult to solve by hackers. (3) Access the internet safely, always uses HTTPS. (4) Knowing and monitoring where you store data. (5) Evaluate all your efforts, continue to apply the basic steps to maintain privacy [15]. Also, keep in mind that privacy is not only about yourself, but also about the people closest to you. Communication encryption must be carried out from end to end, from sender to recipient, so invite the people closest to you to adopt the steps above to protect each other's personal information.

IV. CONCLUSION

Most users in higher education have realized the importance of private security in public services, users are also aware of the risks that can occur if they violate the privacy policies of others. But not a few users in higher education feel that they don't care about the security of their privacy. Therefore, there needs to be a wider socialization and introduction to information security and privacy policies among higher education users.

REFERENCES

- [1] Saeful, "Keamanan Informasi," 2014.
- [2] I.A. Afandi, A. Kusyanti, and N.H. Wardani, "Analisis Hubungan Kesadaran Keamanan, Privasi Informasi, Perilaku Keamanan Pada Para Pengguna Media Sosial Line," vol. 1, no. 9, pp. 783-792, 2017.
- [3] J.R. Batmetan Suyoto and J.D.C.L. Soares, "An Empirical Investigation on Customer Behavior to Adopt Mobile Commerce among the Y Generation in Indonesia," Sriwijaya International Conference On Engineering, Science & Technology [SICEST 2016], 2016.
- [4] J.R. Batmetan and V.R. Palilingan, "Higher Education Students' Behaviour to Adopt Mobile Learning," IOP Conference Series: Materials Science and Engineering, vol. 306, Issue 1, pp. 012110, 2018.
- [5] V.R. Palilingan and J.R. Batmetan, "Incident Management in Academic Information System using ITIL Framework," IOP Conference Series: Materials Science and Engineering, 2018, vol. 306, Issue 1, pp. 012110, 2018.
- [6] Musda, An Introductory Overview of ITIL V3 A High Level Overview of the IT Infrastructure Library, 2012, pp 1-74.
- [7] D. Ki-aries and S. Faily, "Persona-centred information security awareness," Computers & Security, vol.70, pp. 663-674, 2017.

- [8] S. Bauer, B.W.N Edward, and C. Katharina, "Prevention is better than cure! Designing information security awareness programs to overcome users' non-compliance with information security policies in banks," *Computers and Security*, vol. 60, pp. 145-159, 2017.
- [9] N.S. Safa and R. Von Solms, "An information security knowledge sharing model in organizations," *Computers in Human Behavior*, vol. 57, pp. 442-451, 2016.
- [10] S. Mamonov and R. Benbunan-Fich, "The impact of information security threat awareness on privacy-protective behaviors," *Computers in Human Behavior*, vol. 83, pp. 32-44, 2018.
- [11] D. Dang-pham, S. Pittayachawan, and V. Bruno, "Investigation into the formation of information security influence: Network analysis of an emerging organisation," *Computers and Security*, vol. 70, pp. 111-123, 2017.
- [12] C. Xu, Y. Zhao, J.F. Zhang and H. Qi, "System Identification under Information Security," *IFAC-PapersOnLine*, vol. 50, no. 1, pp. 3756-3761, 2017.
- [13] H.F. Alqahtani, "Developing an Information Security Policy: A Case Study Approach," *Procedia Computer Science*, vol. 124, pp. 691-697, 2018.
- [14] A. Malyuk and N. Miloslavskaya, "Information Security and Expert's Knowledge Autoformalization," *Procedia Computer Science*, vol. 88, pp. 288-293, 2016.
- [15] A.R. Ahlan, M. Lubis, and A.R. Lubis, "Information security awareness at the knowledge-based institution: Its antecedents and measures," *Procedia Computer Science*, vol. 72, pp. 361-373, 2015.

Information Security..

ORIGINALITY REPORT

27 %

SIMILARITY INDEX

17 %

INTERNET SOURCES

17 %

PUBLICATIONS

22 %

STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

4%

★ gledismamuaya.wordpress.com

Internet Source

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off