



The Threat of Personal Information Trading in the Online Network and Information Technology

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Abstract

The development of information technology that is increasingly accelerating does not give anyone the opportunity to think beyond what has been created and used by the wider community. Even controlling the factors exceeding their use, often escapes the reach of stakeholders and policy makers. All online activities can be observed and logged. But, in the global era, where information technology cannot be controlled, the distribution of each one personal information become serious problem. This research reveals the information technology impact that threatens the media social users for unsecured and unprotected privacy. The problem faced in all around of the world today is a security problem that is still very impulsive in handling it. People tend to hide their personal information for their own privacy and safety. This paper is using the scope of technological determinism McLuhan as the key to history and social change. This uses library research methods to gather information from any related resources in order to support either deny the fact of its reality. Individual social media users who are in the group of Mark Zuckerberg companies do not have the privacy with proper and safe protection. There is a need to re-enforce the regulations by the policymakers to protect Indonesian citizens, especially after the establishment of the National Cyber and Code Agency (BSSN). Thus, the government role plays an important share in the process of the development of ICT, and should not leave the policies behind for not way too late to be set.

Keywords: Personal Information; Technological Determinism; Information Value

Introduction

The information technology development that is increasingly bolting does not provide an opportunity for anyone to think beyond what has been created and can be used by a wider community. Even controlling for factors that exceed their use often escapes the reach of stakeholders and policy makers. The problem faced all over the world today is a security problem that is still very raw handling. Oscar Gandy, Jr. discussing consumption, which explores political economy from personal information. Gandy (2011) is concerned with certain types of commodities, namely information about individuals or personal information with their role in identifying, classifying, and evaluating individuals. Gandy also argued that personal information is a commodity. When personal information is a commodity, the product is difficult to assess. In his discussion, Gandy revealed about value theories, labor that does not receive wages, labor consumption, valuation and prices of intangible products, assesses individual information,

estimates the value of individual information from its origin, negative value or customer sensitivity, about how individual information is valued and the rewards, how individual information is gathered, the market situation in individual information, and how to market individual information in the future. From the framework of the discussion proposed by Gandy, we can immediately see in this global era that individual information is indeed difficult to value, value, and manage its dissemination. The case raised in this paper is how personal information is threatened to be disseminated in online network. Looking at the case of trading customer personal data, it is easier to do because information technology is increasingly developing. Some cases have been revealed in recent years to connect with Oscar Gandy discussion about personal information.

The study uses a library research method with the objective to find out how the situation in Indonesia might be affected by the personal information trading in online network and how the government has been prepared to face the situation. Observation has also been used in the daily usage of information technology by the researcher. The sources of the findings are found in the mass media more specifically online media.

Character Free Access to Information

Information has a unique character. Its intangible and easily detected character is an unavoidable character of information. The characteristics of information make it a difficult commodity (Landes & Posner, 2004, in Gandy, 2011). According to Gandy (2011), information will only become apparent through the process of abstraction and symbolic representations. Forms of information material that are impressed and made concrete through words, images, abstract formulas and mathematical expressions. Information is difficult to manage, control, or restrict access to. Information tends to be wide open to be accessed, such as printed paper that is wasted, data lying on the work desk of an office, as well as individual personal data as a customer taken by a business. Information characteristics are very unique, because information is not consumed, but is used, unlike commodities that can be sold. However, information can be used widely every time it is used. Its intangible nature makes information not look like a commodity. In a case happening in the first trimester 2018 in Indonesia, it was revealed by the media of *kompas.com* that an information technology expert was selling thousands of bank customer data and the data was used to break into customers' credit cards of a number of banks. Control of the bank's personal information data that has been available, cannot be done if the manager becomes a person who misuses exclusive access owned by the administrator or data manager which is very vulnerable if it is not monitored in its security hierarchy.

Value and Measurement of Information

Gandy (1993 in 2011) states that the role of individual information in identification, classification, evaluation of individuals, is used to induce someone from other people. However, information is difficult to measure. *Intangible* information characteristics make it difficult to determine how much information is produced, supplied, or consumed. Information can only be measured through symbolic representation in letters, words, paragraphs, pages. The number of words does not guarantee information or a full insight delivered effectively or not. Different perspective is presented with value determination. According to Lipursari (2013), how to determine the value of information is an effective benefit and the cost to obtain it. However, the benefits that are more effective than the cost of getting it, determine whether an information is valuable. Gandy (2011) explains that the dominant theory of "value" arises and sinks in response to changes in fundamental economic characteristics and theoretical perspectives that are focused on productive workforce and use value production is important for life, and then, a trade-based economy. He also suggested the description of the following value theories.

- *Production-oriented value theory (Marx 1971) remains appropriate even in the context of an expanded role for commodity trade, except that attention to the nature of the exchange rate associated with markets for tangible goods becomes relatively more important than consideration of the use of values.*
- *It became important for economic thinkers to develop approaches to the assessment of service functions, including those related to the production and distribution of information and knowledge (Beniger 1986, Garnham 1990, Mosco 1996, Preston 2001)*
- *It becomes increasingly difficult to distinguish between the costs of selling and the costs of designing and assembling commodities (Galbraith 1967)*

Analysis of investment and productivity in domestic life was not an important thing in economic analysis. However, for the benefit of the wider community, it is very important to consider several analyzes of these aspects of how value grows. How personal information can be assessed, is difficult to determine as explained earlier. Sumawilaga (2018) via **detikINET** website launched from Popular Mechanics on Wednesday (6/20/2018) that *Facebook* made a profit of around USD 11.97 billion in the first quarter of 2018. When shared equally with Facebook active users - around 1.45 billion users, then the 'price' of the user data ranges from USD 8.25 per quarter or around USD 33 per year despite rough calculations. As with the personal information that is heavily promoted for sale on the websites of the shopping center in the network, as reported by Zaenudin (2017), that modulus selling customer data dilakukan through the website of the perpetrator's selling customer data since 2014 has been arrested Police, with prices varying between Rp350 thousand to Rp1.1 million per package. The striking difference between a cheap business in Indonesia and how Facebook pocketed billions of dollars, made it forced to reflect the theories expressed by Gandy about the characteristics of economic fundamentals.

Value of Information in the Capacity of Individuals and Volunteers

Gandy (2011) proposes that information is an economic product, but with other intangible products, it is very difficult to determine its value, partly because market prices have no relation to production costs. On the other hand, prices are often related to the packaging of the product. However, matters relating to property rights or *copyright* and other forms of Intellectual Property Law, still show that controlling the case of commodity information still cannot be done (National Research Council 2000). In his writing, Gandy (2011) argues that there is a criticism of the classical theory of economics, especially those proposed by feminists, focusing on mainstream tendencies not to consider workers who are given or not directly rewarded through taxes. There are other relationships in it, that workers without rewards or volunteers play an important role and need to be included in the analysis of personal information. For example, increasing explicit attitudes of marketing theorists in discussions relating to vendors and customers regarding exchange of values. Volunteer work is an important source of value. It is understood that volunteers are motivated by a sense of togetherness, thus they contribute to selfless society as the core of the rational action of neoclassical economists. Many consumers of popular culture are also identified as writers, producers, and talents that they see working for them. As a result, many want to contribute in producing content.

Information content that is sometimes difficult to control can be duplicated autonomously without consent. To what extent do the news spreaders benefit from what has been disseminated, but get information without the value reflected to the content producer. *Online*, it is very easy to do. Various blogs are available for free, giving rise to contributors to articles that can be easily accessed by anyone, who can adapt without rewards or provide adequate exchange rates.

Gandy (2011) argues about the valuation and price of intangible products that customers tend to not realize workers are exchanging labor for wages. Much information based on transactions regarding the consumer community must be treated not only as labor without compensation, but perhaps even

because something valuable is taken without warning or compensation. This is not to deny that there is a substantial amount of valuable information about consumer citizens who are freely provided to business organizations and the government. This information is often obtained from surveys.

To understand the value of information, *Total Information Awareness* is needed to know not only what must be delivered but also when delivering it to potential customers. The survey results as Gandy's opinion, are data that when asked are not just ordinary data that can be answered by customers. The content will be very valuable for those who need it for purposes such as and especially marketing.

Consumption of Customer Information

Information about customers is very important for the operation of a market that is active at high speed on the Internet. Marketers want to understand the relationships that are constantly changing between customers and their products and their competitors' products. Ironically, many consumers repeatedly pay high prices for the commodities they are involved in developing. Their support to make the commodity different and become a valuable product, makes the price of the product high to differentiate from other goods (Arvidsson, 2005). Today's market has a very high need for information technology in the form of gadgets and other communication tools. For example, the well-known brands of mobile phones based on Android, which continuously update their version of the phone based on complaints, input, comments, and the wishes of its customers that were delivered intentionally to the manufacturer. Increasingly new, mobile phones offered are increasingly expensive, and not a few consumers are hunting for the latest version of these cellphones. In the news reported by the Jogja Tribunnews by Mahrizal (2018), in just 2 minutes Dashing Blue Special Package was priced at Rp. 4,499,000,- sold out immediately. The buyers do not realize that their inputs are used by producers to make the latest version more sophisticated and in accordance with the wishes of their users. In the news, it was also reported that distributors in the network that sell out in 2 minutes implement a marketing strategy that makes it easier for their customers to shop. To provide the best online shopping experience, features and facilities Cash on Delivery, 100% original and g ratis postage throughout Indonesia with the purchase and the nominal amount and specific, applied including the types of mobile phones.

The estimation of the value of a brand depends very much on the unreliable forecast of revenue flows based on the positive profit that the branded commodity hopes to realize on the market. Future revenue streams cannot be predicted. It is indeed unpredictable as what was reported by Haryanto (2018) in detikINET.

The latest of Samsung product, with prices exorbitant, Samsung claims the Galaxy Note 9 sales record of its own, as an infinity smartphone displays, exceeds sales of the previous version. In the pre-order period, the Note 9 sold 1.5 times more than its predecessor. Unfortunately, regarding the number, the South Korean vendor did not mention it in detail. "The Note 9 sells 1.5 times more and is twice as fast as the Note 8," said Jaehoon Kwon, President of Samsung Electronics Indonesia in Jakarta.

Individual Market Information

The main problem in the formation of individual information markets is the difficulty of strengthening intellectual property rights of *intangible* products such as information. In addition, it is increasingly difficult to recognize property rights of individual information because each individual produces information through behavior that is rarely thought of as a worker, and is not always based on a work contract. Most of the individual information is recorded automatically because of the routine without stealing attention, notice, or approval from the concerned. Intellectual property rights from individual information have little value for customers who in the corporate industry have certain provisions for that information. An example that cannot be avoided is when an individual uses a

cellphone that continuously turns on location features and has a Google email account. Automatically, the movements of these individuals will be recorded by certain platforms that are provided openly by Google. Not only online, but offline can also produce fast information to pay attention to. Everyday time someone does his routine recorded by his neighbors who can explain to anyone who asks about that person.

Companies often get access to individual information whose data is taken by the government. The data in question is data that each individual is difficult to refuse to give, even tends to be difficult to file a complaint to provide that information.

The user information system generates all types of transactions that can be issued or Transaction Generated Information (TGI) according to user usage, easily through search engines like Google (Andrejevic, 2007). The fact that Google continues to increase the number of variations of systems that can store personal information only adds value to the use collected by the data that represents it (Zimmer, 2008). The author investigates the Google site, and encounters various features which are additional features of search engines only on websites, among others, users can send input to Google about what they experienced, a 'tool' feature that makes it easier for users to only search for sites that speak certain, and when uploading content, even the safe search feature can be set by the user. However, it is all recorded by Google, so that user habits can be seen only by entering into one of the Google sites. For example, the Google *Map Timeline* site can record the route to which we are within a certain period of time, and is reflected on a google map. Every day, hour, minute and seconds are recorded in detail by Google. Google records the movement of users when email is installed on a mobile phone and turns on location features. Many users are not aware of the recording, but Google has recorded and used personal data for each individual company for sure.

A military computer security specialist, Conti (2006), reminds us that internet services are not free. They are financed by *micropayments* in the form of personal information recorded from each transaction or request. For example, micropayments are available services such as Flattr, M-Coin, PayPal, SatoshiPay, and so on. To find out what micropayments are, the following two examples can be understood. Paypal is a MicroPayments with a micro payment system that charges payments to a user's PayPal account and allows transactions of less than US \$ 12 to be done. In 2013, this service was offered only in certain currencies. Meanwhile, SatoshiPay is a micropayment processing platform for online media. This service allows websites to monetize content through one-click or automatic payments and remove friction associated with existing paywall solutions by operating without registration or downloading software for end users. The number of transactions dropped to less than US \$ 0.01, which the company called "nanopayments", was activated by the use of smart contracts and block chain technology based on the Stellar network.

Gandy (2011) discussed the widespread use of *spyware* as another example of the limited ability of most individuals to avoid recording and using personal information. Consumers value their own privacy and are concerned about how business information and TGI are recorded. It is important to understand that recording and selling TGI results in losses by supporting discrimination in the market in a way that captures consumer surplus. Unfortunately, understanding the value of consumers to their own information needs to be championed given the tendency of courts to reject reasonable expectations of privacy or control over information that they "voluntarily" share with third parties (Solove and Hoofnagle, 2006 in Gandy, 2011). The fact that it is almost impossible to engage in electronically mediated transactions without relying on third-party intermediaries is not accounted for by the authorities. This fact occurs in Indonesia with regard to social media owned and managed by foreigners, such as those that are very often used by Indonesian citizens, namely Facebook, Yahoo, Instagram, and others. Reported in detikNews by Pane (2018),

Scandal has leaked three billion leaks of Yahoo service user data that the New York Times proclaimed (October 3, 2017). The Yahoo scandal made data leakage of over 87 million Facebook users

feel small. Presumably, that made Mark Zuckerberg apologize, and admitted that the data leaked massively in March 2018. In fact, from the background information shared by Facebook at the House of Representatives Commission I meeting on April 17 it was seen that they had learned of Kogan's violation on December 17, 2015. It seems, the situation changed after a former Cambridge Analytica employee named Christopher Wylie "blew a whistle".

Pane also added that although the Indonesian Government issued Minister of Communication and Information Regulation Number 20 of 2016 concerning Protection of Personal Data in Electronic Systems, as a derivative of Government Regulation Number 82 of 2012 concerning the Implementation of Electronic Transactions and Systems, the regulation could not determine criminal sanctions. Thus, the expected deterrent effect on giant multinational foreign corporations such as Facebook, cannot be caused, because sanctions that can be imposed are only in the form of administrative sanctions.

Result and Conclusion

The observation of the author, very few individuals realize that every time they do a search on any search engine in a group managed by Marc Zuckenbergr, namely Facebook, Whatsapp, Instagram and others. Then, the person's gadget will send search information that is done so that every time you open social media, both Facebook and Instagram, information appears that matches the user's attention. There is no privacy that can be enjoyed by individuals. For now, regulations need to be enforced. The role of stakeholders in policy makers is very important to protect citizens, both Indonesia and other countries. It is always hope that the Indonesian people can hope. The Indonesian government considers the importance of abuse in the cyber world that needs to be regulated and begins to take preventive measures, with the establishment of the State Cyber and Code Body (BSSN) which is directly under the President of the Republic of Indonesia.

The government is aware that cyber security has become a priority issue in various countries in the world, especially with the development of information and communication technology which has been widely used to support various community needs. These requirements cover the fields of social, economic, legal, organizational, health, education, culture, government, security, defense, and so forth. As explained in the BSSN website, its job is to implement cyber security effectively and efficiently by utilizing, developing and consolidating all elements related to cyber security. In carrying out the duties, BSSN performs functions to establish technical policy, its monitoring and evaluation, coordination of functional activity in implementation of BSSN tasks and as a coordination forum for all stakeholders, coaching and the provision of administrative support to all organizational units in BSSN environment, monitoring in the tasks implementation, the implementation of a substantial support to all elements of the organization in BSSN environment; and implementation of national, regional and international cooperation in cyber security matters.

References

- Andrejevic, M. (2007) *iSpy: Surveillance and Power in the Interactive Era*. University Press of Kansas.
- Arvidsson, A. (2005). Brands: A critical perspective. *Journal of Consumer Culture*, 5(2), 235–258. <https://doi.org/10.1177/1469540505053093>

Badan Siber dan Sandi Negara Republik Indonesia. Profil, Tentang BSSN. <https://bssn.go.id/> diakses pada tanggal 5 September 2018.

Gandy, O.H. (2011). Personal Information. *The Handbook of Political Economy of Communications*. Editor: Wasko, Murdock, Sousa. Blackwell Publishing, Ltd.

Haryanto, A.T. 24 Agustus 2018. Penjualan Galaxy Note 9 Diklaim Pecahkan Rekor. <https://inet.detik.com/consumer/d-4180098/penjualan-galaxy-note-9-diklaim-pecahkan-rekor>

Lipursari, A. (2013). Peran Sistem Informasi Manajemen (Sim) dalam Pengambilan Keputusan. *JURNAL STIE SEMARANG*, VOL 5, NO 1, Edisi Februari 2013 (ISSN: 2252-7826)

Mahrizal, V. 31 Januari 2018. Hadir Eksklusif di Lazada, OPPO F5 Sold Out Dalam 2 Menit!, <http://jogja.tribunnews.com/2018/01/31/hadir-eksklusif-di-lazada-oppo-f5-sold-out-dalam-2-menit>.

Pane, F.A. P.23 April 2018. Perlindungan Data Pribadi Elektronik <https://news.detik.com/kolom/d-3985934/perlindungan-data-pribadi-elektronik>

Puspita, S. 17 April 2018. Terbongkarnya Bisnis Jual Beli Data Nasabah Bank via Situs Web. <https://megapolitan.kompas.com/read/2018/04/17/10511881/terbongkarnya-bisnis-jual-beli-data-nasabah-bank-via-situs-web>

Puspita, S. 17 April 2018. Pemilik Situs Temanmarketing.com yang Jual Data Nasabah Bank Berdalih untuk Bantu Pemasaran Produk. Editor :Dian Maharani. <https://megapolitan.kompas.com/read/2018/04/17/05000091/pemilik-situs-temanmarketingcom-yang-jual-data-nasabah-bank-berdalih>.

Sumawilaga, R.D. 20 Juni 2018. Jual 'Data Pengguna', Facebook Dapat Duit Berapa? <https://inet.detik.com/business/d-4075118/jual-data-pengguna-facebook-dapat-duit-berapa>

Zaenudin, A. 25 Agustus 2017. Mudahnya Data-data Pribadi Dijual di Dunia Maya. <https://tirto.id/mudahnya-data-data-pribadi-dijual-di-dunia-maya-cviZ>

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