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Ade Abdul Hak

Universitas Islam Negeri Syarif Hidayatullah Jakarta, ade71@uinjkt.ac.id

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Effect of e-Literacy Maturity Level on Lecturers' Information Use Behavior at Islamic University, Indonesia

Ade Abdul Hak

Library and Information Science Department
Universitas Islam Negeri Syarif Hidayatullah Jakarta
ade71@uinjkt.ac.id

Abstract

This study investigated the effect of e-literacy maturity level (Information Literacy, Media Literacy, Moral Literacy, and Learning & Thinking Skills) on the lecturers' information use behavior at UIN Syarif Hidayatullah Jakarta, Indonesia. The research based on Social Cognitive Theory (SCT) and Uses and Gratification Theory (UGT) had been exploring the relations and effects of the e-literacy maturity level to the information use behavior as a communication process in electronic media. A questioner survey based on a cluster sample of 91 lecturers at 11 faculties had been taken for this explanatory research. The result showed that the mean score for all of the constructs was 4 (high) out of maximum score obtainable of 5 (very high). Simultaneously, the effects of e-literacy maturity level, as a characteristic factor in SCT and as an antecedent in UGT, to the information use behavior are significant, $f\text{-value} (39,04) > f\text{-table} (2,70)$. Partially, the effect of Information Literacy and Learning & Thinking Skill on the information use behavior are significant, $t\text{-value} (2,486; 4,237) > t\text{-table} (1,985)$, but the Media Literacy and Moral Literacy are not. Meanwhile, there are significant relationships between all sub-variable in e-Literacy affecting Information Use Behavior. Therefore, it's recommended that the entire sub-variables of e-literacy as one that is important in the formation of a motivation training for using of electronic media for the lecturers.

Keywords: *e-literacy; information literacy; media literacy; moral literacy; learning & thinking skill; information use behavior.*

Introduction

The development of information technology and computer networks has encouraged the change in the field of communication. It's mainly in human information behavior (Williamson et al. 2007). One of its indicator is already emerging the information needs in accordance with the motivation, the environmental and psychological atmosphere of every person. Bearings are the demands on the use of electronic communication media to meet these needs cannot be avoided. Having the technology, audiences tend to be free to choose the mediated communication. It's to satisfy or to meet their information needs; even once the public must be involved more actively as a producer of the information itself (Dimaggio et al. 2016; Mitra 2010; Nasrullah 2016).

The magnitude of the potential information technology and the freedom of the communication usage are supposed to be a challenge for the academic community in the

Islamic University. Where it's said by Minister of Religious Affairs Lukman Hakim Saifuddin, that the number of Islamic universities in Indonesia, which is about 6,000 Islamic religious institutions, is the highest in the world (Sasongko 2015). For the reason of making them more aware of the challenges and responsibilities of the values of religious ethics in communication, they must be supported in the passage of the moral responsibility of the mission and vision of the institution.

On the other side, the convenience of using electronic communication media has raised several ethical violations in spreading the unconfirmed news. One sample is the case of the persistence of the spread of fake news (hoaxes) in the electronic communications network (digital) among lecturers of UIN Syarif Hidayatullah Jakarta. A sequence of analysis of documentation of January 1, 2016, to June 31, 2019, in a social media group of the lectures, showed that the high spread of hoax; it was mainly related to the political situation in the Jakarta gubernur elections in 2017 ago until now. According to the result of interviews, admins illustrated that some of the professors had resigned from the group. To keep reconnect communication between the lecturers, the admins had formed a new group respectively concerning faculty information.

By way of a colleague based in Islamic institutions, these problems should be avoided. Even though, these problems are still common in the education community. As revealed by UGM sociologist, Widhyharto, that the phenomenon of hoaxes is unstoppable. Based on the wishes of the people who tend to the euphoria of the modern technology, even the educated people, height intention utilizes his knowledge to produce not valid additional information. It issues only based on opinion. Meanwhile, the No. 11 of the Constitution, 2008, on Information and Electronic Transactions (ITE), was impressed not been able to target the news disseminator without having an identity (Sihaloho 2016).

The easiness process through the exalted information technology (such as a smartphone), sometimes having less control of ethics, psychology, science, social, political, etc. to this process, is unavoidable, either as the part of intent or ignorance. Tubbs and Moss (2005) that this mediated communication has the potential data sensed more limited recipient, and the receiver has inadequate control his sources define it.

Of course, for the academic community who knows and accustomed to utilizing digital devices easily, the problem not caused by the digital divide in accessing to information infrastructure (such as internet access via a smartphone). However, this is more likely to view as different digital divide due to the low of "e-literacy". For that reason, the research was to investigate how e-Literacy influenced to the information use behavior at UIN Syarif

Hidayatullah Jakarta. This study was to provide a practical literacy programs that will be the most priority in the development of potential lecturers. In addition, it also could provide the advantage of communication and library science.

Review of Literature

E-Literacy has been defined by Martin as computer literacy integrated with information literacy, moral literacy, media literacy, and learning & thinking skills (Secker and Price 2008). This term described as the ability of individuals or institutions that is very important to make knowledgeable judgement and to succeed in aiding in the electronic era (Bilawar et al. 2016; Secker and Price 2008). It is principally ethical and moral issues in the use of electronic information sources. In this case, Tubbs and Moss (2005) quoted, that the main problem was a fundamental moral principle, the principle of respect for the [other].

Overview of the use of communications media with the e-literacy maturity level would indicate a person's information behavior and ultimately will form the model of information behavior. It should be understood as all efforts regarding a person's behavior associated with the communication resources of the person (Wilson 2000).

The previous studies have described the importance of the values of responsibility to optimize the role of technology and networking as a communication medium (Akser 2014; Bilawar et al. 2016; Saidu 2014). Therefore, the case study conducted by O'Neil (2013) and Ahmad, Ahmad, & Hamasaeed (2015) illustrates how social media has really become an important means of movement of the fighters. It became a significant tool for the demonstrators to exchange information and send their message to the outside world in encouraging the public to revolt against the deterioration of the political situation. Bilawar et al. (2016) have concluded that the e-information literacy empowers the university to enhance e-information search skills effectively and independently for taking informed decision.

The other study by Leung showed that there was a meaningful relationship between the internet connectivity and information literacy; there was a strong relationship between information literacy and quality of life. The findings encourage further that the use of communication media has a positive impact on the quality of life for the media used with good intention (Aljenaibi 2015; Gifary and Kurnia 2014; Ogwo 2011; Seechaliao 2014).

These studies have shown how the Social Cognitive Theory (SCT) and the Uses and Gratification Theory (UGT) used in the study of the use of communication media. These theories describe how the audiens' behavior affected by his personal characteristics. The characteristic factor, in Bandura's cognitive social theory, will affect one's behavior in the use

of electronic media in accordance with the demands of the environment and society. In this case, it's assumed that the e-Literacy maturity level will affect the information use behavior in an electronic media. Bryant and Thompson disclose social cognitive theory to provide a framework of thought that makes it possible to analyze human knowledge (mental function) that will produce certain behaviors (Morissan 2016).

The SCT assumes that the mass media is the main agent of socialization in addition to other sources, such as family, school, and community environments. It was instrumental in studying the effects of mass media content in media audiences at the individual level. The media can provide distinct roles, such as teaching reading and writing, the transfer of knowledge, technology, ethical values and moral (Severin and Tankard 2014).

Furthermore, in accordance with the basic assumptions of the theory of Uses and Gratifications (UGT), Kats, Blumler and Gurevitch illustrate that media content can only be judged by the audience itself, so the media try to compete with other forms of communication because the audience aware of the media to be used (Morissan 2016). In this case, Schramm stated that someone will assess the level of appreciation (gratification) they expect from a medium or message was given to how much effort they have to make (West and Turner 2007).

Objective of Study

1. To examine the information literacy (X_1), media literacy (X_2), moral literacy (X_3), and learning and thinking skills (X_4) simultaneously influence on the information use behavior (Y);
2. To identify how much the information literacy (X_1) partially influences on the information use behavior (Y);
3. To identify how much the media literacy (X_2) partially influences on the information use behavior (Y);
4. To identify how much the moral literacy (X_3) partially influences on the information use behavior (Y);
5. To identify how much the learning and thinking skills (X_4) partially influences on the information use behavior (Y).

Research Method

The primary data of the research are 91 questionnaires of the lecturers at 11 Faculties as stated in table 1, UIN Syarif Hidayatullah Jakarta. The sample was selected by stratified random sampling technique with the aim of making homogeneous properties of the population considered heterogeneous (Cochran 1977; Kriyantono 2014). The sample size was obtained by Taro Yamane formula of the known population size (Riduan and Kuncoro 2011), 989 lecturers with 10% precision and 95% confidence level.

Table 1
The Size of Faculty Population

Faculty	N _i	N	n	n _i
Education	176	989	91	16
Law	114	989	91	11
Religius	97	989	91	9
Dakwa	98	989	91	9
Economy and Bussines	87	989	91	8
Saints	109	989	91	10
Dirrasat	22	989	91	2
Politic	43	989	91	4
Psychology	33	989	91	3
Medecine and Nurse	108	989	91	10
Humaniora	98	989	91	9
TOTAL	989			91

Source: UIN Syarif Hidayatullah Jakarta

The validation test of the questionnaire shows that all items of the question have significant value 0.000 (smaller than) $< \alpha = 0.05$, and the cancel of r-test 0.579 is above r-table 0.206. It means that the instrument has been valid. Likewise, the results of reliability tests (table 2) show the value of Cronbach's Alpha 0.872 – 0.948 (greater than) > 0.7 , it means that the instrument is reliable.

Table 2
Reliability Test

Variabel	Alpha Cronbach's	Conclusion
Information Literacy	,913	Reliabel
Media Literacy	,895	Reliabel
Moral Literacy	,872	Reliabel
Learning & Thinking Skills	,948	Reliabel
Information Use Behavior	,939	Reliabel

Source: Primary Data, 2019

Results and Discussion

Data had been analyzed by SPSS 22 regarding normality and structural equation model test as a description of the direct influence of the variable of e-Literacy maturity level on the information use behavior.

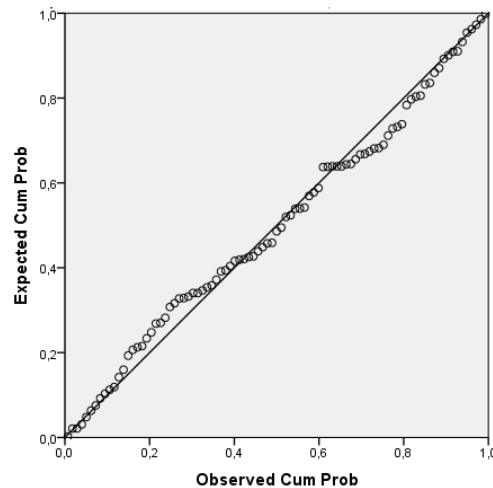


Fig. 1

Normality P-P Plot Test: The Relationship between the Information Literacy, Media Literacy, Moral Literacy, Learning and Thinking Skills to Information Use Behavior.
(Source: Primary Data, 2019)

Based on the results of the normality P-P Plot Test in fig. 1, it has showed that the relationship between sub-variable information literacy, media literacy, moral literacy, and learning and thinking skills to the information use behavior having a normal distribution pattern in which the data spread around the diagonal line. It showed that the regression model must meet the assumptions of normality. Furthermore, the results of statistical hypothesis testing with the formula: $H_0: \rho_{yx_1} = \rho_{yx_2} = \rho_{yx_3} = \rho_{yx_4} = 0$; $H_1: \rho_{yx_1} \neq \rho_{yx_2} \neq \rho_{yx_3} \neq \rho_{yx_4} \neq 0$, was produced some of the following tables:

Table 3
Anova for the Maturity Level of Information Literacy, Media Literacy, Moral Literacy and Learning & Thinking Skills to Information Use Behavior

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4402,636	4	1100,659	39,04	,000 ^b
	Residual	2424,353	86	28,190	4	

Total	6826,989	90
a. Dependent Variable: Information Use Behavior		
b. Predictors: (Constant), Information Literacy, Media Literacy, Moral Literacy and Learning & Thinking Skills		

Source: Primary Data, 2019

Based on table 3, it has obtained the F-value of 39.044 and the probability-value (Sig.) of 0.000. In accordance with the provisions, if the probability-value (Sig.) < 0.05, then the decision is H₀ is rejected and H₁ is accepted. Therefore, it can be concluded simultaneously that the information literacy, media literacy, moral literacy, and learning and thinking skills influence the information use behavior.

Table 4
Model Summary for the Information Literacy, Media Literacy, Moral Literacy and Learning & Thinking Skills to Information Use Behavior

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,803 ^a	,645	,628	5,309

a. Predictors: (Constant), of Information Literacy, Media Literacy, Moral Literacy and Learning & Thinking Skills

Source: Primary Data, 2019

Based on table 4, the value of R square (r²) was 0.645. These values can be simultaneously used to see the effect of the maturity level of information literacy, media literacy, moral literacy, and learning and thinking skills on the behavior of the use of information by calculating the coefficient terminated (KD) using the following formula:

$$KD = r^2 \times 100\%, \quad KD = 0.645 \times 100\% = 64.5\%.$$

These values are simultaneously intentions that the effect of the information literacy, media literacy, moral literacy, and learning and thinking skills on the information use behavior is 64.5%. As for the rest of 35.5% (100% - 64.5%), it has been influenced by other factors. In other words, the information use behavior should be defined by using a maturity level of information literacy, media literacy, moral literacy, and learning and thinking skills for 64.5%, while 35.5% is due to the influence of other factors outside of this model.

Table 5
Coefficients^a for the Information Literacy, Media Literacy, Moral Literacy and Learning & Thinking Skills to Information Use Behavior

Model	Unstandardized Coefficients	Standardized Coefficient	t	Sig.
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		B	Std. Error	Beta	s	
1	(Constant)	2,032	4,512		,450	,654
	Information Literacy	,391	,157	,280	2,48	,015
	Media Literacy	-,050	,131	-,040	-	,706
	Moral Literacy	,284	,163	,154	,378	,085
	Learnig & Thinking Skills	,530	,125	,488	4,23	,000
					7	

a. Dependent Variable: Information Use Behavior
Source: Primary Data, 2019

Partially, to see the effect of the maturity level of information literacy, media literacy, literacy moral, and learning and thinking skills to the information use behavior, in Table 5, has been described the results of the Standardized Coefficient or Beta value for each variable. Information literacy influences the information use behavior, the formulation of statistical hypotheses: $H_0: \beta_{yx1} = 0$; $H_1: \beta_{yx1} \neq 0$, views (sig.) 0.015, where the value is less than the probability of 0.05, or $0.015 < 0.05$; so that H_0 is rejected and H_1 is accepted. It means that the path coefficients are significant. Thus, information literacy is a considerable influence on the information use behavior by 0.280.

Furthermore, the impacts of media literacy on the information use behavior, the formulation of statistical hypotheses: $H_0: \beta_{yx2} = 0$; $H_1: \beta_{yx2} \neq 0$, was viewed at 0.706. The value is greater than the probability of 0.05, or $0.706 > 0.05$; so that, H_0 is received and H_1 is rejected. It means that the path coefficient is not significant. Media literacy is not a considerable influence on the information use behavior. The value remains only -0.040.

As well as the media literacy, moral literacy influence on the information use behavior, the formulation of statistical hypotheses: $H_0: \beta_{yx3} = 0$; $H_1: \beta_{yx3} \neq 0$, had been shown 0.085. The value is greater than the probability of 0.05, or $0.085 > 0.05$; so that H_0 is received and H_1 is rejected. It means that the path coefficient is not significant. Thus, moral literacy not significantly affects the information use behavior.

The last, the effect of the learning and thinking skills to the information use behavior, the formulation of statistical hypotheses: $H_0: \beta_{yx4} = 0$; $H_1: \beta_{yx4} \neq 0$, had been viewed 0.000. The value is less than the probability of 0.05, or $0.000 < 0.05$; so that H_0 is rejected and H_1 is accepted. It means that the path coefficients are significant. Thus, literacy is the ability to learn and think a considerable influence on the information use behavior amounted to 0.488.

Furthermore, the correlation test of sub-variabel of e-literacy maturity level to the information use behavior can be viewed in table 6. Based on the table, it's obtained the

correlation between the sub-variable of information literacy, media literacy, literacy moral, learning and thinking skills and the information use behavior. To provide an interpretation of the coefficient, it's used the following guidelines: 0.800 to 1.000 = very strong; 0.600 to 0.799 = strong; 0.400 to 0.599 = strong enough; 0.200 to 0.399 = low; 0.000 to 0.199 = very low.

Table 6
Correlations of Information Literacy, Media Literacy, Moral Literacy and Learning & Thinking Skills to Information Use Behavior

		Information Literacy	Media Literacy	Moral Literacy	Learning & Thinking Skills
Media Literacy	Pearson	,699**			
	Correlation				
	Sig. (2-tailed)	,000			
	N	91			
Moral Literacy	Pearson	,649**	,614**		
	Correlation				
	Sig. (2-tailed)	,000	,000		
	N	91	91		
Learning & Thinking Skills	Pearson	,778**	,750**	,580**	
	Correlation				
	Sig. (2-tailed)	,000	,000	,000	
	N	91	91	91	
Informati on Use Behavior	Pearson	,732**	,616**	,594**	,765**
	Correlation				
	Sig. (2-tailed)	,000	,000	,000	,000
	N	91	91	91	91

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data, 2019

The correlation between information literacy and media literacy has been reached at 0.699. It has a strong and direct correlation. It means that if the value of information literacy is higher, the value of media literacy is also higher. The two sub-variable correlations are significant with the sig. $0.000 < 0.05$. Principally, based on the table, the correlation among each sub-variable has a strong and direct correlation. It means that if one's literacy is higher; the other is also higher. Except for the correlation between moral literacy and learning and thinking skills, it has a strong enough correlation.

The overall picture of the relationship and the effect of e-literacy maturity level (information literacy, media literacy, moral literacy, and learning and thinking skills) and the information use behavior can be viewed in Fig. 2. Based on the model, it noticed that the relationship between the sub-variables has a strong correlation. The relationship between the

sub-variables makes up the e-literacy maturity level; they should not to be separated from each other in their influence on the information use behavior for Lecturers of UIN Syarif Hidayatullah Jakarta. The result of statistical test proves that simultaneous the e-literacy maturity level has the effect of 64.5% and 35.5% has been influenced by other factors not examined in this model.

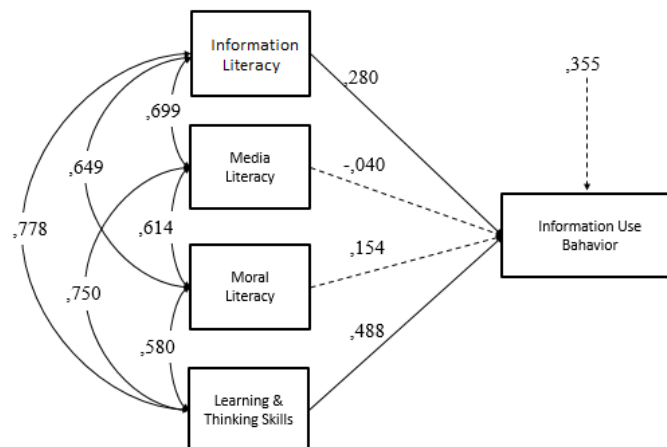


Fig. 2

The Model of Empirical Causal Effect of Maturity Level of e-Literacy on Information Use Behavior
(Source: Primary Data, 2019)

Based on the model, it can be viewed that there is an inclination of the negative influence of media literacy if it's done individually. It means that there is a tendency of decreasing influence on the information use behavior of 0.4 while the media literacy is not coupled with the information literacy, moral literacy, and learning and thinking skills. In this case, Cappello (2017) asserts that developments in the understanding of literacy, particularly with regard to the problem of development of information technology in society. He has led to the incorporation of some of the terms of literacy (such as audiovisual literacy, media literacy, media literacy education, digital literacy, information literacy, and other literacy) which basically requires people to think more critically to the problems of social, economic, cultural and other life issues.

Having significance values greater than 0.05, then the effect is still considered to be insignificant. It is not the same when compared with the maturity level of moral literacy. Although the influence of linear, moral literacy to the information use behavior is

individually not meaningful with a significance value of more than 0.05 and the value of the effect of just 0,154.

In accordance with the framework of the concept of Personal Capability Maturity Model (P-CMM) which has been given by Indrajit (2005), the e-literacy maturity level of UIN Syarif Hidayatullah Jakarta lecturers, in general, is 73.6% (located in the fourth stage). At this stage of the lecturers have been deemed able to increase significantly (can be expressed quantitatively) the performance of activities of daily life using information and technology. At this stage, the ability of the faculty, in general, has gone through the previous stages. They have involved the information and communication technology to find information as to the 1st stage; have a recurrence pattern in the use of information and communication technology as the second stage; and, standards mastery and understanding of the information and technology needs, and consistently use these standards as a reference implementation of daily activities as third stage.

From the description above, there are still about 26.4% of lecturers of UIN Syarif Hidayatullah Jakarta in category 3. At this stage, they are still not able to increase the quantity of performance in daily life using of information and communication technology. And, it still takes two steps to reach the stage of the 5th as individuals who have considered the information and technology as an integral part of daily activities, and directly has colored the attitudes and cultural life (part of the information society or the human cultured information) (Indrajit 2005).

The information use behavior of UIN Syarif Hidayatullah Jakarta lecturers in this study describes the use of electronic communication media by destination or a motive and the correlation with the maturity level of e-literacy. Tolman suggested that many behaviors are directed by purpose (King 2016). In this case, being exemplified when a teacher has the aim to find out information about the promotion of functional regulation will make use of electronic media to search for such information. The use of electronic media, in this case, is only to meet the increase in functional positions. Lecturers do not always use the electronic media because it is driven to search for information by using the electronic media. Thus, the focus of concern here is on what goals they want to achieve the use of electronic media.

The overview of information use behavior of UIN Syarif Hidayatullah Jakarta lecturers is a description of several reasons for the use of media as disclosed McQuail and colleagues. McQuail and colleagues point out the reasons why audiences are consuming media, namely: to escape from the daily routing (diversion), to establish a personal relationship, to strengthen individual values, and to help individuals achieve something (Morissan 2016). In general,

human needs are divided into several categories of basic needs. Maslow tries to create a hierarchy of needs ranging needs of dialogic or physical, safety, social, self-respect, and self-actualization. Relating to the communication, one can act in communication to achieve one level of need and will seek to achieve a higher level again in accordance with the model's hierarchy of needs (Sumadiria 2014).

Broadly, the average behavior of the use of information UIN Syarif Hidayatullah Jakarta lecturers is 3.93 (see Table 7) in the scale level 5. Thus, the picture of information use behavior for the UIN Syarif Hidayatullah Jakarta lecturers is high. That is, the use of electronic media by the lecturers have been made to meet the objectives mentioned above.

Tabel 7
The Description of e-Literacy Maturity Level and Information Use Behavior for UIN Syarif Hidayatullah Jakarta Lecturers

	N	Minimum	Maximum	Mean	Std. Deviation
Information Literacy	91	3	5	3,97	,722
Media Literacy	91	2	5	3,70	,850
Moral Literacy	91	3	5	4,14	,754
Learning & Thinking Skills	91	3	5	4,15	,714
Information Use Behavior	91	2	5	3,93	,742
Valid N (listwise)	91				

Source: Primary Data, 2019

One of the important aspects to meet these goals is the motivation or incentive to seek information needed by utilizing electronic media. In the model, the behavior of the second Wilson described information about "activating mechanism" as one step activation individual to know how to look and what information he would need (Case 2002). One of these self-activating steps is how self-efficacy can motivate information seeking behavior (from passive attention, passive search, active search, ongoing search, to the "processing and use of information" stage), and the "processing" stage and the use of information". This is another important step in information behavior that tries to evaluate information and its effects on information needs according to predetermined goals.

Case (2002) concludes that an "activating mechanism" as the form of confidence influenced by several intervening factors, such as psychological influence, demographic background, environmental variables, and characteristics of information sources. In this context, the theory of Uses and Gratifications developed by Katz, Blumler, and Guveritch illustrates that self-awareness of an interest and self-motive will continue with the use of the

media (Spark 2012). An individual actively and consciously chooses certain media to use. In this case, Marisson explains that individual differences cause the public to seek, use and respond to media content differently depending on the various social and psychological factors in each individual. The audiences are considered to know their needs and are responsible for the use of media in meeting the needs. Therefore, this theory is considered as an idea that views the media as having limited effect to audiences, in other words, it assures the individual's ability to exercise control over the media they consume (Morissan 2014).

The above description that is inspected that the confidence and individual motives to use this media are influenced by antecedent factors as individual and environmental variables. As Rosengren confirmed that "individuals are affected by the social environment and their individual characteristics, generating their basic needs" (Chiu and Huang 2015).

One of the individual factors often discussed in the electronic communication environment is the maturity level of e-literacy (Indrajit 2005; Morris 2007). The empirical picture of e-literacy maturity level of the lecturers of UIN Syarif Hidayatullah Jakarta and its influence on the information use behavior can explain the significance of the influence of individual factors in using mass media as an electronic information system in supporting communication process. The result of the statistical test shows that the variable of the e-literacy maturity level simultaneously affects the information use behavior with the influence value of 64,5%.

According to Wilson, the information use behavior involving the information system can be a communication activity separate from general communication activities (Pendit 2008). In this case, the use of information systems constituting the whole of equipment, products or systems created specifically for storing, maintaining, rediscovering, or repackaging information is one form of information source in the behavior of electronic communications.

The lecturers, as a communicator, who choose what source of information will be used in the communication, will ultimately be influenced by each individual's e-literacy level. In the context of the theories of uses and gratifications, the level is included in the psychological source of the need that spawned hopes from the mass media (Sumadiria 2014).

As illustrated in the findings of this study, the e-literacy maturity level, consisting of sub-variables of information literacy, media literacy, moral literacy, and learning & thinking skills have a simultaneous influence on information use behavior for the lecturers. The higher level of the life problems and information technology is the higher the demands of e-literacy maturity level.

Partially, the result of the analysis shows that only information literacy and learning & thinking skills that significantly directly affect the behavior of the use of information.

However, from the description of the correlation test of the four sub-variables (table 4) shows a strong and significant relationship between the four sub-variables. And, just one relationship that shows strong enough, moral literacy and learning & thinking skills.

The most influential of the sub-variables to the information use behavior is proved by the sub-variable of learning & thinking skills. The influence of learning & thinking skills contributes the influence of (0, 4882) or 24% from other factors (see Fig. 2).

As explained in Bandura theory, learning and thinking skills can be one of the human characteristics factors of three other reciprocal causation (triadic reciprocal causation) (Bandura 2001). This ability is one of the human capabilities associated with the social cognitive theory that describes that one's behavior will be influenced by the characteristics of the person, one of which is the ability to learn and think critically from the use of media.

In the book "Personal Learning and Thinking Skills (PLTS) Mapping Guidelines" published by the ProQual Awarding Body, the learning and thinking skills is described as the ability to evaluate and manage the strengths and weaknesses of its potential for realistic goals as a criterion for its success; the ability to generate, explore and connect ideas originally (Inggris. Lembaga Penghargaan Proqual 2013).

The skills will be one of the determining factors for the lecturers in the activity of using information system as part of communication behavior. Budd reveals that when a person reacts in communication, it is unconsciously that the person will engage further and have long-term consequences. The information processed in his involvement will cognitively develop interpretation and representation of the results of his internalization of the world which allows him to think and understand what he experiences. Thus, the learning and thinking skills will make a person to bring up these representations when communicating with the environment (Ruben and Stewart 2014).

The awareness of this ability is a potential source of motivation and satisfaction in the use of information for cognitive development. Gradually engagement with the information system in the behavior of the use of this information by itself will also develop the learning and thinking skills. In this case Ruben & Stewart (2014) explain that one will choose, interpret and store information, and learn about the physical and social environments that also provide the message sources for itself as the person grows. Furthermore, Littlejohn and Foss (2009) assert that, in communication situations, one depends not only on the form of stimulus and response alone, but the mental ability to acquire, store, and process information will direct the way of output behavior in its communication.

Based on the explanation, the learning and thinking skills will relate to the ability of information literacy he has. The term can simply be defined as the ability of a person to be aware of when information is needed while being able to locate and use the required information effectively (American Library Association 1989). Thus the understanding of this literacy has implications that one should be able to identify a need, and what information it needs, why information is needed, what and how much, what information is really appropriate for the right time, and its accessibility in various formats media available (Ilogho and Nkiko 2014). As an illustration of the importance of this information literacy, the results of this study indicate that the average of information literacy maturity for lecturers of UIN Syarif Hidayatullah Jakarta is 3.97 on a scale of 5, or at a high level of maturity (see table 5).

Meanwhile, the relationship between information literacy with learning and thinking skills showed a high correlation rate with a value of 0.788. In addition, the effect of information literacy maturity on information use behavior showed a positive and significant influence, with an influence value of $(0.28)^2$ or about 7.8%. That is, when there is an increase in the information literacy, then the information use behavior will increase 7.8%.

Gunawan et al. (2008) disclose some of the benefits of this information literacy among others is to be able to learn continuously and communicate with others effectively and ethically. In terms of effectiveness, it relates to the ability to use media or media literacy, and from the ethical side is related to the ability to apply the moral values prevailing in society or moral literacy. For this reason, Martin stated that the concept of e-literacy is an attempt to combine elements of that literacy (Secker and Price 2008).

Media literacy is described as one of the ability to access, analyze, evaluate, and communicate information in various formats both printed and non-printed messages (Martin and Grudziecki 2016). Referring to Bertelsmann & AOL Time-Warner, media literacy is one component of the ability to enrich human knowledge and critical thinking skills by integrating social, professional and technological developments. More simply can be regarded as one of the individual capacities that evolve wherever to create and disseminate content on a variety of audiences (Iriantara 2009).

Furthermore, from the ethical side associated with the ability to apply the moral values prevailing in the community in communicating. This capability relates to the responsibility to account for the social consequences of online publications (Iriantara 2009). Clifford (2011) affirms this ability relates to the ability to make judgments about whether or not decisions are of the most diverse.

The moral literacy shown by lecturers of UIN Syarif Hidayatullah is 4.14 on scale 5. Although it doesn't individually and directly affect one's motivation in the use of communication media, moral literacy has a correlation which is high with sub-variable literacy information and quite high with the learning & thinking skills. This means that the moral literacy indirectly has an indirect effect on the information literacy, learning & thinking skills, and information use behavior.

Clonclusionion

This study proves that the e-literacy maturity level (which consists of information literacy, media literacy, moral literacy, and learning & thinking skills) influences the information use behavior in electronic media. This is evidenced by the strong relationship between the four sub-variables; simultaneously and significantly, the variables influence on the information use behavior. Although, partially, only the maturity level of information literacy and learning & thinking skills have a significant effect.

This conclusion illustrates that the e-literacy maturity level has important implications in the development of a person's confidence level in the information use behavior as one of the personal factors to communicate effectively. Simultaneously, the e-literacy maturity level will have a role in raising awareness of one's communication behavior in the use of electronic media. Thus, the freedom of choosing the communication media will be in harmony with the ethical and moral values.

The results of the study contributed in strengthening the social theory of cognition and the theory of uses and gratification. Besides that, this research is also expected to give recommendation for librarian making program of e-literacy in college environment by looking at whole aspects be given in the activity.

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