

# Civic Literacy Reinforcement to Cope with the Age of Free Flow of Information: Lesson Learned from Students in Boarding School Environment

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**Abstract:** The free flow of information occurs along with the rapid development of information technology in the industrial era 4.0. Reinforcing students' civic literacy is an effort to prevent negative impacts arising from the phenomenon of free flow of information such as hate speech, hoax news, and understanding radicalism. Civic literacy provides students an overview and considerate accessing and transmitting information on internet. Reinforcing students' civic literacy requires an effective strategy, which is integrated into all students' structured and systematic learning activities. This research aims to explore strategies used to reinforce students' civic literacy in boarding school to cope with the free flow of information. This research is designed with qualitative method and used purposive sampling technique to obtain the data. The subjects of this research are Civic Education subject teachers, head of boarding school, and students. The data collection was carried out by document study techniques, interviews, and observations. Data analysis techniques are carried out by data reduction, data presentation, drawing conclusions, and verification. The results of this study indicate that reinforcing students' civic literacy to cope with the free flow of information covers three aspects, among others data literacy, technology literacy, and human literacy carried out in the two domains, learning at school and boarding school.

**Keywords:** civic literacy, free flow of information, boarding school

## INTRODUCTION

The free flow of information comes into existence along with the rapid development of information technology in the era of industrial revolution 4.0. What is essentially Industrial Revolution (IR) 4.0? Shwab (2016) explains "an example that helps to understand how the industrial revolutions changed across time. During the 1st IR, the water and steam were used to mechanize production. During the 2nd IR, electric power was used to create mass production. During the 3rd IR, electronics and information technology were used to automate production. The 4th IR is the 3rd IR, in which the advancement of new technologies is between the physical, digital and biological worlds lines.

In the 4.0 industrial revolution, approximately 75% of jobs require people with mastery qualifications of science, technology, engineering and mathematics, internet of things, lifelong learning (Zimmerman, cited in Kemenristekdikti, 2018). IoT (Internet of Things) demands all industrial activities be carried out through an online system and thus connected to each other. The ease of internet access is a trigger to the presence of the varied forms of social media primarily that facilitate people to easily interact, communicate, exchange information, and transact freely without limited space and time.

Gatewood (2008) notes that "Podcasts contain information on almost any topic, delivered via the internet in audio or video form. They allow learners to access information at anytime from anywhere, with no constraints - just the free flow of information ". Everyone shares the same opportunity to obtain information, due to that reason; it will expand one's knowledge and have them think globally in addressing various problems in this era of globalization. In the field of

education, everyone may obtain academic literature from various fields and countries, which consequently broaden individuals' knowledge and insight. On the other hand, if all those advancements are not balanced with a good level of literacy, the free flow of information would rather lead the users to involve into a variety of negative impacts, including the number of hoaxes, hate speech, cyber bullying, widespread radical ideologies, pornography, and the spread of propaganda, all of which is meant to disharmonize among people.

Based on the Indonesian Ministry of Communication and Information data in 2018, Indonesia was ranked in the 6th largest world internet users, where this data was broken down by the Indonesian Internet Service Providers Association (APJII), which reaches 171.17 million people or covers 64.8% of Indonesia's total population of 264.16 million people. The internet use penetration in Indonesia majorly engaged people around 10 to 39 years old, of which the largest is contributed by citizens aged 15-19 years. Here is the detail:

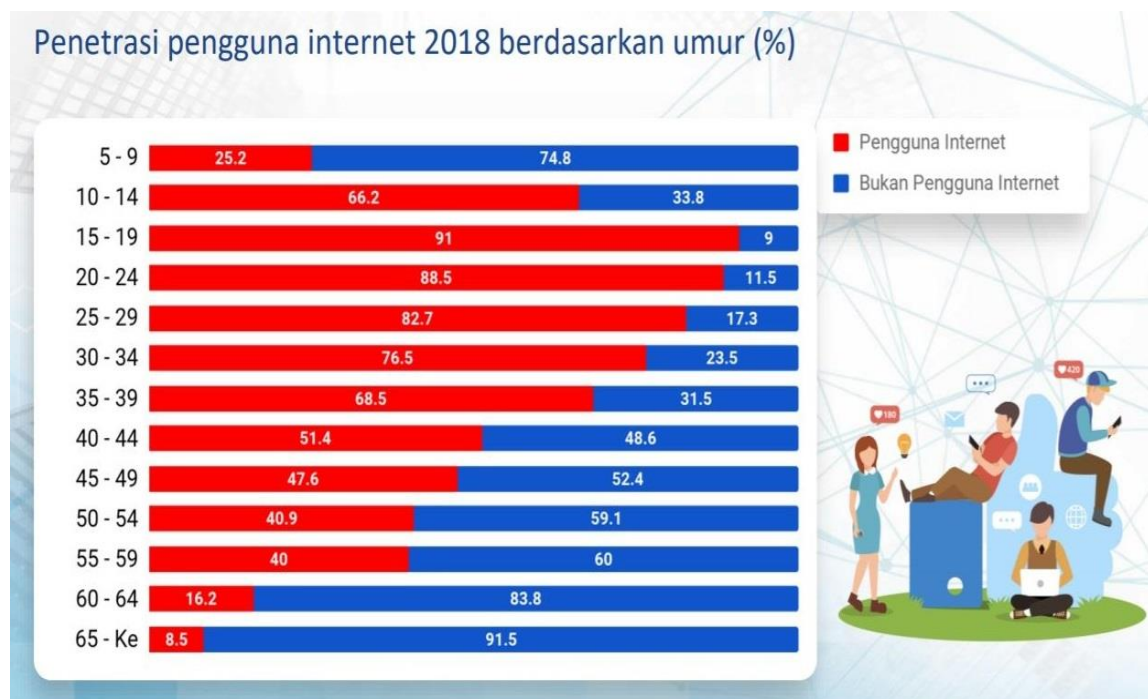


Figure 1. APJII Internet User penetration data for 2018

The problem is that many Indonesian internet users incline to trust all information circulating on the internet without having clarified them beforehand. According to the survey results of the Center for International Governance Innovation (CIGI) in collaboration with Ipsos in 2016, 65% of 132 million Indonesian internet users believe in the truth of information in cyberspace without checking and re-checking them first, by 15% direct trust and 50% believe that those information are trustworthy. Even though not all information on the Internet can be justified and does not rule out the possibility that information spread on the internet relates conflict of interest.

This actually occurs because many of the internet users in Indonesia have a low literacy rate. The data of Program for International Student Assessment (PISA) in 2016 proves that Indonesia was ranked in 62nd with a score of 397 out of a total of 70 state participants in the literacy category (<https://www.oecd.org>). Furthermore, Indonesia's literacy rate data in 2016 according to Central Connecticut State University was ranked in 60th out of a total of 61 countries being researched (<http://www.ccsu.edu/wmln/rank.html>).

The low level of literacy leads any citizens into suffering negative impact of the free flow of information. Due to such reason, the effective and strategic efforts become urgently needed to improve the people's literacy, more importantly the civic literacy, in order that people of citizens may be able to act on and respond to various problems ruining the nation and state's lives balance.

Milner (2002) explains that "... the most likely method of improving the levels of civic literacy is civic education". Condorcet further in *A History of Education for Citizenship* (2004: 43) argues that: Specific recommendations for civics education fall into two requirements. One is that, although the Constitution and the Declaration of Rights should be realized, as the sets of texts, the appreciation of their estimated quality should not be as the result of indoctrination: they are to be taught as the outcome of employment of reason, the path to eternal truth. The second requirement for lifelong civic education not linked to leaving school. This is reinforced Finkel's opinion (2000) that "Civics education is a formal and informal training to develop knowledge, uphold positive values and skills as the effective contributions to engage citizens in political processes and civil society.

In boarding school, civics education is carried out formally and informally throughout the day. Several studies have shown students' civics social life, among others: 1) Florian Pohl's study entitled "Islamic Education and Civil Society: Reflections on the" Pesantren" Tradition in Contemporary Indonesia" which shows that education in modern Pesantren, which determine Islamic religion a part of progressive politics and empowering civil society. 2) A study by Andrew Martin, Brad Papworth, Paul Ginns and Gregory Arief D. Liem entitled "Boarding School, Academic Motivation and Engagement, and Psychological Well-Being: A Large-Scale Investigation" which shows the level of motivation and involvement of boarding school students in social lives are higher than students who do not. 3) Andrew Martin, Brad Papworth, Paul Ginns and Lars-Erik Malmberg's study entitled "Motivation, Engagement, and Social Climate: An International Study of Boarding Schools", shows that the Educational atmosphere in boarding schools is quite productively good for students' character building, among which related to their motivation and involvement in social life.

Boarding school can be an alternative option to conduct civic education both formally and informally. Formally, civic education as usual is carried out during the learning time at school, while informally it is carried out along with various students' activities in boarding school. This paper discusses what strategies are required to strengthen students' civic literacy in dealing with the free flow of information phenomenon in their boarding school.

## METHOD

This research was conducted in Junior High School of *Majelis Tafsir Al-Qur'an* (MTA) Gemolong. The method used in this research is descriptive qualitative research method. Moleong (2016: 6) explains that descriptive qualitative research concerns to understand phenomena about what is experienced by research subjects holistically, and describes them descriptively in the form of words and language in a specific context. In this research, the researcher seeks to describe the results of the process of strengthening civic literacy in dealing with the free flow of information phenomenon in boarding school. The research used a purposive sampling technique to the subjects including the Civic Education Subject, Head of Boarding School and Students of MTA Junior High School of Gemolong. The data collection was carried out by applying the techniques of document study, interview, and observation. The techniques used in analyzing the data cover the data reduction, data presentation, drawing conclusion, and verification.

## RESULTS AND DISCUSSION

The results of this research indicate that information has become one of the today's most important commodities that have a huge impact on individual, social and political lives. The international flow of information is defined as information and / or messages transmission across the boundaries between two or more cultural systems (that is groups or collectivities with different cultures) oration states (Bornman, 2017). Bornman further explained that "The information can take multitude of forms such as news, films, radio and television programs, the multitude forms of information closely related to internet, data flow which includes the flow of money, and so forth. The free flow of information allows learners to access information at anytime from anywhere, with no constraints (Gatewood 2008).

International flow of information has been a highly controversial issue and a variety of views are held on the nature and impact of various forms of information flows. According to Still (2010) the positive impact out of "the free flow of information that is prerequisite for innovative capacity of society, for preserving cultural diversity, increasing democracy and productivity in the information society and further innovation and productivity.

The negative impact of such influence that the rapid flow of information on the internet and social media has been the first trigger for the emergence of news hoaxes, radical understandings; black propaganda, where all of those will easily affect individuals who do not have good literacy. Jeanna and Paul (2013), however, commented that "social media are not really problematic by nature; the problem lies in how individual use the social media ". Any activity of using social media, such as posting statuses, uploading images without having good literacy will not be able to wisely filter out the information and spread.

Strengthening civic literacy is highly significant to cope with the free flow of information. Civic literacy is a valuable skill for students to learn as it provides a foundation for a better understanding of the complexities of governance and political world (Fudge, et al). Furthermore Civic literacy is interpreted as "the knowledge and skills to participate effectively in life through knowing how to know, understanding governmental processes, and knowing how to exercise rights and obligations of citizenship at local, state, national, and global levels. Individuals also have an understanding of local and global implications of civic decisions" (Partnership for 21st Century Skills, 2009). To refer the above opinion, the researcher concludes that civic literacy concerns either individual or citizen's attitudes towards knowledge and skills to cope with the national and state life in their environment.

What kinds of literacy are needed to cope with the free flow of information in the current era of industrial revolution 4.0? Aoun (2017) suggests new literacy in dealing with the industrial revolution 4.0, among others are; 1) data literacy; 2) technology literacy; 3) human literacy, as explained in the following table

**Table 1.** Aoun's New literacy Model (2017)

No	Literacy	Expiation
1	Data literacy	The ability to read, to analyze, to use information (Big Data) in the digital world.
2	Technology literacy	The ability to understand mechanical (system) work, to use the application of technology
3	Human literacy	Humanities, Communication and Design

The above literacy reinforcing strategy focuses on increasing students' capacity to use information and technology, in addition to increasing students' capability to interact each others. This is in line with Russin's findings (2018) in his paper entitled "Education 4.0 Made Simple:

Ideas For Teaching" indicates that the success of education is strongly influenced by significant factors of both technological integration in learning, and learning design which sustain socio-emotional learning of the students. Morgan (2016) in his paper "Developing Civic Literacy and Efficacy: Insights Gleaned Through the Implementation of Project Citizens", explains that to develop civic literacy, students should be actively involved in learning activities, not only in classroom, but also to show the citizens participation in their environment. The underlying reason for why the author examines the development of civic literacy in boarding schools is because it does not only take place in schools but also in boarding school.

Based on the results of observations and civic literacy reinforcement interviews in boarding schools conducted through two strategies, namely:

#### 1. By having Students do their School's Learning Activities

Aoun suggests that new literacy includes digital literacy, technology literacy and human literacy. The development of the three literatures was carried out through the use of digital-based teaching materials in addition to 4C learning (Critical Thinking, Collaboration, Communication, and Creativity). In the context of Civics, Milner (2002) maintains that digital literacy skills are one of the civic literacy's competencies.

Based on the results of observations and interviews conducted to teachers of Civics education subject, the use of digital-based teaching materials which includes using internet to enrich teaching materials, Youtube learning videos, e-books, the making of instructional videos, in addition to blogs for both teacher and students to upload their assignments or teaching materials. The table below explains students' Civics reinforcing strategy.

**Table 2.** Strategies used to Reinforce Students' civic literacy through digital-based teaching materials

No	Literacy	Digital-based teaching materials
1	Data Literacy	Internet for learning, learning videos and using e-book as book of reference
2	Technology Literacy	Making learning videos, using learning blogs
3	Human Literacy	Students communicatively interact each other in discussion, question and answer session, and work division assignments in study groups.

Furthermore, on the basis of the research results, the students were tested according the 4C learning activities (Critical Thinking, Collaboration, Communication, and Creativity) as explain in the following syntax:

- Problem statement: students do critical thinking by identifying as many questions as possible related to the lesson being learned beginning from factual questions to hypothetical questions to develop creativity, curiosity, the ability to form questions to form critical thoughts that need to live smart and lifelong learning.
- Data collection: students do collaboration by forming groups to discuss, gather information, present, and exchange information about the material being discussed
- Data processing: students do collaboration and critical thinking by discussing with group of observations.
- Verification: students do critical thinking by discussing the results of their observations and verifying the results based on the data or theory explained in the textbooks.
- Generalization: students hold a communication in conveying the results of group discussions in a presentation. Students should creatively conclude the important points within the learning activities that have just been done.

Students reinforcing Civic literacy activities follow the 4C learning model (Critical Thinking, Collaboration, Communication, and Creativity), as explained in the following table:

**Table 3.** Reinforcing Students' Civic Literacy through 4C learning method (Critical Thinking, Collaboration, Communication, and Creativity)

No	Literacy	4C Learning Method
1	Data Literacy	Holding Critical thinking, collaboration, communication activities in learning syntax.
2	Technology Literacy	Doing creative activities such as using the internet to gather information, and using power points to present results of the discussion
3	Human Literacy	Holding discussion, the process of exchanging information, presentation, and question and answer section.

## 2. By having students do their activities in the boarding school

The school which was chosen as the research object was an Islamic school, or Islamic Boarding School (IBS). Based on Masyhud, (2002), "the aim of Islamic boarding school is; to create and develop Islamic personality, which is a personality that has faith and piety to Allah SWT, good behaviour, helpful for society, independent, and firm in personality, disseminate the religion, standing for Islam in society (Izzul Islam wal Islamic in) and knowledge seeking for improving Indonesian personality"(MPP, 2003: 92-93). These goals are in line with the notion of civic literacy, the idea of acquiring knowledge and skills to participate effectively in civic life through knowledge, understanding the governmental processes, and knowing how to exercise the rights and obligations of citizens at local, state, national, and global levels. Individuals should also have the understanding of both global and civic decisions"(Partnership for 21st Century Skills, 2009), by which knowledge, skills, and students' participation are the main concerns.

Based on observations and interviews conducted to the head of boarding school, the first and most of students' routine activities emphasizes human relations with the Almighty Allah (*Habluminallah*) and doing activities related to maintaining a good relationship with fellow human beings (*Habluminannas*). The first is *Habluminallah* which is performing the worship the recommended or *sunnah* and the obligatory, as well as holding learning Islamic routine activities among others *Tahsin* (Qur'anic reading refinement), *Tafsir* (the Qur'anic interpretation), *Tahfidz* (memorizing the Qur'an) in addition to sermons and brief speech. Those students' activities indicate data literacy reinforcement strategy application.

Secondly, *Habluminannas* covers believers' daily activities related to humanity, such as distributing cleaning picket schedules, pick-up pick-up schedules, *adhan* schedule, study group, Arabic and English language practices, talent development activities, in addition to nature contemplation activities (*tadabbur*).

Other findings found during observation were the Qur'anic writing training using a computer, the screening of the prophet's story and the companions or *sahabats* routinely held in every Saturday night and using media such as camera recording assistance and headphone on holding *tahsin* session (Qur'anic reading refinement). Those technology uses help students to clearly comprehend the Quranic recitation in detail, as far as the researcher concerns; this is a typical use of technology literacy applied in boarding school environment.

In addition, the boarding school physical environment closely located with the church, where this circumstance partly helps students fostering their sense of religious tolerance. One of the tolerance attitudes can be seen in the boarding house activity, in each Friday and Christian holidays, the evening learning activities held in boarding school, this was meant to honour the church worshipers. As far as the researcher concerns, students do their best in terms of human literacy. Students' civic literacy reinforcement is describable in the following table.

**Table 4.** Civic literacy reinforcement within students' activities in the boarding school

No	Literacy	boarding school activities
1	Data Literacy	<i>Tahfidz, tahsin, tafsir</i> , holding the learning activities, sermons and brief religious speech in both Arabic and English language version.
2	Technology Literacy	Holding computer-based Al-Qur'an writing training, using video recording assistance and headphone in holding the Tahsin session activity, and watching movies about the story of the prophet and the companions.
3	Human Literacy	Students hold interaction with among fellow students, learning tutors and head of the boarding school, and students hold interaction with people of residents around the boarding school.

Students reinforcing strategies of Civic literacy covers data literacy, technology literacy, and human literacy which happen in both school and in boarding school, and provides students with knowledge and skills in order they are able to respond to the impact the free flow of information, whether that has happened now, or as a form of anticipation of the problems of the life of the nation and state in the future.

## CONCLUSION

In today's era of industrial revolution 4.0, it takes a shift in literacy paradigm from old literacy which only emphasizes the reading aspect and writes towards more comprehensive literacy. Reinforcing students' Civic literacy to cope with the impacts brought by free flow of information in boarding school covers the attitudes of internalizing three main aspects of literacy, among others; data literacy, technology literacy, and human literacy. In realizing those three aspects of literacy, they were carried out in two strategies: *First*, by holding learning activities at school by applying the 4C learning model (Critical Thinking, Collaboration, Communication, and Creativity) in addition to presenting digital-based teaching materials, applied to students' activities both in the boarding school the so called *diniyah* (religious) and students interacting with other fellow students, boarding school teachers, and students with residents living around the boarding school.

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