

The effect of digital technology on students' reading behavior

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Abstract

Rapid advances in telecommunications technology, media and information technologies, and the widespread development of global information infrastructure transform learning patterns into global paradigms. The purpose of this study is to seek whether technology has a major impact on students' reading behavior. Using qualitative method, this study attempts to provided comprehensive and clear picture of 12 respondents' behavior, habits, and perceptions of how technology affects their reading habits. The results of this study indicate that technology has positive impact on the interest in reading of students, but most students prefer reading nonfiction rather than reading lessons.

Keywords: technology, reading comprehension.

INTRODUCTION

Rapid advance of technology, media, and information sets the expansion of global information transforming the science and information into a global paradigm. It was this paradigm that became dominant and effectively became involved in the revolution of information networks, which would later determine the future of national welfare.

In French, a *telematica* term is the meeting of a communication network system with information technology. The term information technology itself refers to the development of information tooling technologies. According to those telematics practitioners, they stand for "telecommunication and informatics" which is a composite concept of computing and communication. The term telematics is also known as "the new hybrid technology" born with

the development of digital technology. These developments have made communication and information technology increasingly integrated or popular with the term "convergence." The mainstream media was not yet an integral part of the information and communication technology convergence issues.¹

In today's modern world there are wide range of sophisticated technologies, such as telephone communication devices, social media, transportation, and so forth. The internet becomes a worldwide community, including students. The intensified term is called home to thousands upon thousands of programs used to obtain various information as well as for learners to read learning materials.

Reading is one of activities in the process of acquiring knowledge. Through the student's literature, information that is presented in a book can be gleaned which they can apply in their daily life. Students can thus improve their quality by becoming interested in reading. A desire to read is a strong desire along with efforts-the one's striving to read. Interest in reading is embodied in the elements of mindfulness, willingness, encouragement and pleasure to read. All of this is an activity of perseverance and a sedentary nature. (Farida Rahim).

However, reading activity among students is waning. The researchers' hypothesis focuses on current technological developments that led to students' interest in reading, especially interest in reading the text in print media. This is a live survey by Nielsen consumer and media view (CMV) in the second quarter of 2016.

Executive director, head of watch business Nielsen Indonesia, Hellen Katherina claims that only nine percent of the Z generation are currently reading newspapers, magazines or tabloids in print. The selections select information from television and the Internet. (Mayapada Tower, Central Jakarta. Wednesday, 19/10/2016).

These six years were conducted with 17,000 surveys aged 10 to 19. Nielsen then divided them into two groups. The first group is 10-14 years of children. And the second group is 15-19, the teen category. And as a result, only 4 percent of children still read the printing press, 98 percent chose to watch television, 13 percent chose to play the Internet, 10 percent used pay-per-view television, and 7 percent listened to the radio. As for the youth, only 9 percent still read in print, starting with newspapers, magazines, and tabloids, while 97 percent chose TV viewing, and 81 percent chose the Internet.

¹ Hamzah B. Uno dan Nina Lamatenggo, *Teknologi Komunikasi dan Informasi Pembelajaran*, (Jakarta:BumiAksara 2014) hal. 186-187

Regarding this finding, the researchers focused on the high percentage of technological use of information towards the students' reading behavior.

METHODS

The study is qualitative work with a descriptive method. Data was collected from observation, interviews, and distribution of questionnaire. According to Sugiono qualitative research is better used for a type of research that understands social phenomena from the perspective of participants. The work of qualitative methods is aimed at revealing whether technological progress is good or bad for interest in reading based on the interviews and questionnaire.

According to Sharan B. and Merriam in the book *qualitative research; A guide to design and design*, says that: "Qualitative research is an inquiry approach useful for exploring and understanding a central phenomenon. Qualitative researchers are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences. The overall purpose of qualitative research are to achieve an understanding of how people make sense out of their lives, delineate the process (rather than the outcome or product), of meaning-making and describe how people interpret what they experiences".²

Hence, researchers describe the effects of technological advances on the reading of students in modern globalization, as today, by looking at the facts and results.

RESULTS AND DISCUSSION

Results

a. Technology in the age of globalization

Highly modern technological developments have a huge impact on communities, especially students. Anyone can access anything from anywhere. With the various media features available, students can also access media that can help them complete a task, one of which is internet media. The internet media can help learners find information and can increase their interest in reading. But do learners feel the effects of current technological progress and make the most of it?

² Sugiono, *Metode Penelitian Kualitatif Untuk Penelitian yang bersifat: eksploratif, enterpretif, interaktif dan konstruktif*", Bandung: 2017, hal. 4

Tomlinson voices globalization on two sides. First, globalization can bring benefits to a country because it has made the world seem very close. The gap between one country and another is lifted. The development of communication technology tools such as radio, television, videos, the Internet has made it so easy for individuals to reach the territory of others. Second, it can bring evil to one country, as it will bring about a new imperative to the culture of nations.

b. Technological progress is affecting students' interest in reading

Here are the excerpts about the effect technology has on learners in the globalization era:

1. Did students enjoy reading?

One of the language skills that students must master is reading. Through reading, students will become better acquainted with the world, and more and more students can develop other language skills. It is in line with the Hodgson's opinion (in Tarigan, 2013:7) stating that "reading is a process for gaining messages." Reading also broadens our knowledge of previously acquired information.³ Reading brings great benefit to the readers that every reading has a meaning and a message, and they can get a message from the reading only if they truly understand what it means.

Of the 12 respondents who filled the questionnaire on the effects of technological advances on student reading, it was found that 58.3% answered "yes," 47.7% said "sometimes". This indicates that most students today enjoy reading and 0% answered "no."

2. Did learners read print or e-book?

The print press in 2017 is growing low, not only on the national scene, but also the international scene began to rumble. The printing media business was abandoned by owners as a result of the development of information technology. In reality a printing media has begun to abandon its readers, young ones now prefer to use mobile phones, computers, or other digital devices, and online media. The results of the study include 66.6% who still enjoy reading print books.

Based on what the researchers observed, today's students do read more texts through e-books. Previously, students used print media, but along with the development of technology, reading texts such as novels, textbooks, and even news media have gone through the internet.

³ Delia Delviani et all, *Penerapan Model Kooperatif Tipe Circ (Cooperative Integrated Reading And Composition) Berbantuan Media Puzzle Kalimat Untuk Meningkatkan Kemampuan Membaca Anak Dalam Menentukan Pikiran Pokok*, Jurnal Pena Ilmiah, hal.2

3. *The growth in rapid technology had a positive effect on student reading?*

⁴According to Umi Fathimah on the "corporate frame" blog the beginning of technology was created in the middle of human life to make it easier for any human activity. Today, however, technology has proliferated more and more as the age progresses. And so it adds technologies that increasingly coddled human life. An example of today's advanced luggage is a cell phone/smartphone.

Technology is indeed very helpful and makes it easier for students, especially when Covid-19 is spreading almost all over the world. For approximately 2 years the learning was carried out online using the internet. However, it turns out that it also spoils students and there are also errors in its use.

Globalization has fueled a downward trend in the world of education from conventional face-to-face education toward more open-air education. Technology can improve quality and reach when used wisely for education and practice. The educational technology has evolved considerably as Finn, A well-known pioneer of educational technology, tried to connect the word "technology" with "education" by saying that people (in North America, then) would change a lot because of technological progress, it would gradually affect the educational world as well as in the reading of learners. What positive effect has technology had on the student's interest in reading? Studies show that 41.7% who chose "yes," 41.7% who answered hesitantly, and 16.7% said "no" affected the positive interest in their read. And so, as Fatimah's comments on his blog suggest that more and more technology functions are spoiling human life.

4. *What media do learners use to supplement reading on the Internet?*

The medium word is the plural form of the medium word. Medium may be defined as the medium or introduction of communication from the carrier to the recipient (Heinich et.; Ibrahim; Ibrahim et. Al.,2021) The media has been one of the communication components that send messages from communicators to the community (criticos,). Assuming that definition, it can be said that learning is a communication process.

As technology progresses, reading media has become increasingly available through the Internet. Beginning with article fiction, non-fiction, article collection, and the news. So in this study, the researchers gained results that among the choice of applications for students to increase their reading, 58.3% read *wattpad*, 16.7 read *noveltoon*, 0.0% use *cabaca*, 8.3% use

⁴ Accessed from: <https://anfieldvillage.wordpress.com/2015/10/04/pengaruh-kemajuan-teknologi-terhadap-minat-baca-siswa/>

Microsoft edge, 16.7% use Google book, and 8.3% use *webtoon*. There are 41.7% of students reading study articles, 59% reading fiction, and 33.3% reading the news via the Internet. (source: research questionnaire).

From this point on, researchers conclude that some students prefer the fictional literature found in the current internet media to reading literature that will enhance their science and knowledge. It was obvious that there was interest in reading students, but their reading material was turned into fiction.

5. Are students using technological advances to practice their reading skills?

Technology is a tool that makes it easier for learners to improve knowledge. But do students use such technology? Based on research, 75% of students stating "yes", 8.3% answering "no," 8.3% answering "hesitantly" and 8.3% also answering "sometimes."

Thus, it is concluded that some students have not yet taken advantage of technological advances to practice their reading skills. And only about 33.3% of the students who chose to read the English text.

6. Did students enjoy reading books prior to their introduction to technology?

One of benefits of reading according to Suyitno (1985: 37-38) is obtaining a reductions of consciousness for the sake of reading as a means of obtaining information. Prior to technological progress, learners loved to read and receive information or material from a press. However, as technology comes with various information media, learners have a decline in interest in reading because they are distracted by technology. In fact, 75% of students read books before they become familiar with technology, 16.7% answers "sometimes", and 8.3% answers "no." Meanwhile, 50% of students are distracted by technology and 50% sometimes distracted from reading.

In an article examining the effects of information technology on students' reading, it was found that of the 30 students who visited the library, only about 10 children actually liked books because borrowed books were interesting and the student liked to read. Another 20 say that they do not like to read books because they are too lazy to look at the material in them. They borrow books because they only want to follow other friends who borrow books in the library. And when it got home the book was not read at all and some were not even opened. When asked why the book was not read? Their excuses abound, some saying that they are lazy, short - lived, mobile toys, play with friends, tired, and so forth. And when asked would you prefer a book or an article with electronic media? with this question, almost all students claim

that they would rather read an article using such media as phones, computers, and tablets as much as possible because they are more interested in the features available on the device. As for reading books they had lost interest.⁵

c. Information Technology and Communication Technology

Information technology in education can improve quality when used wisely. But if it did not, it would be bad for the user. Here is the trend toward education in Indonesia for the future, namely 1) promoting open education with a distance learning mode, convenience for open-air education and long distance should be included as a key strategy; 2) sharing resource with educational institutions/exercises in a library and other educational instruments (laboratory teachers) refundable into information rather than just bookshelves; 3) the use of interactive information technology tools, such as multimedia CD-ROMs, in education gradually supersedes television and videos. With the development of the information technology in education, students are being able at this time to be held for long distance study by using Internet media to link students to their teachers, to see the students online, to check the accounts, to see the schedules, to send out the paperwork the professors have given them and so on, it's all been possible.

In the journal "the effects of technology on education in the 21st century" it is explained that in the 21st century, the effects of technology were largely felt. Variations in learning media up to the latest learning models make technology indispensable. Researchers looking at the technological developments of the 21st century were indeed needed. Internet use and gadgets help learners in the process of learning to teach online. However, as today's technology is misused and lessens the interest of reading learners in learning.⁶

From what is presented above, it can be concluded that information technology in the field of education of student can perform the study using Internet media even if done remotely. This is due to a lack of interaction between teachers and students and is possible for online media interactions whether it is in real time or not. If done in real time forms for example in a class group that uses the WhatsApp and classroom applications, or direct interaction with real audio and real video, and online meetings such as zoom and Google meet. If it cannot take place

⁵ Antuk Putri Idhamani, *Dampak Teknologi informasi Terhadap Minat Baca Siswa*, Jurnal Perpustakaan, hal.3

⁶ Galang Sansaka Megahantara, *Pengaruh Teknologi Terhadap Pendidikan Di Abad 21*, Yogyakarta: Universitas Negeri Yogyakarta, hal.5

in real time, then it can be done through mailing lists, discussion groups, newsgroup, and bulletin boards, then by way of interactions between teachers and students can be much better.

d. Utilizing IT in education

In the Communication Technology Book and Learning Information, (Hamzah, Nina: 2014) it is suggested that rapid growth of technology, particularly the Internet, makes it possible to develop better information services in an educational institution. At the university's environment, another use of it is made possible by a system called electronic university (e-university). The development of the e-university aims to promote education, so that colleges can provide better information services to their communities, inside, and outside of the college via the Internet. Another educational service that can be implemented via the Internet means that by providing online lecture materials and these are accessible to anyone who needs them.

The covid-19 pandemic that has emerged over the past two years has resulted in all activities that require online meetings. Education included. The study in the class was transferred to the zoom room or Google meet. Thus, the Internet makes it easier for students and teachers to receive and inform others of assignments, Deuteronomy, and so forth. One of the applications used to send out assignments is the e-learning application which also contains a teacher's assignment.

And since most people do so at home, there are many applications presented to entertain learners, including a *wattpad* application that contains nonfiction literature. It is through one of these applications that the student performs a lengthy reading activity. It is of considerable interest to the student. Of the 12 students, there are 58.3% using *wattpad*.

In Indonesia's academic education that has knowledge about the implications of it in education is that it is UI and ITB. Example, UI. Almost every faculty has access to a network that people can use, providing information that even those who have difficulty obtaining it because of space and space. It would also be very helpful for prospective students or students or even alumni to need information about tuition, curriculum, tutors, or many others. Another example is that Bina Nusantara's private university also has a highly developed Internet network, which makes it the most likely to get Indonesian academy of education award. Services provided on their website can be referenced with services provided by foreign educational sites such as the California institute of education, or the Virginia institute of education and so forth.

At a high school level of education, the implication has also begun, although it has not been able to withstand its implications on advanced education. At this high school, the average use of the Internet is just a supplement and it is not yet a primary curriculum taught for students. It has not been the primary media database for values, curriculum, students, teachers or otherwise, but the prospects for the future, the use of it in high school is pretty bright.

⁷In an article *Pemanfaatan Teknologi Informasi Dalam Bidang Pendidikan (E-Education)*, it said that to harness information technology in the education process, there are some development steps to take as follows: 1) Designing and creating application databases, which store and process data and academic information, both the college system, the assessment system, curriculum information, education management, and learning materials; 2) Designing and creating bait-based learning applications, web, multimedia interactive, which are composed of tutorial applications and learning devices; 3) Optimizing TV use as enrichment materials in order to promote improved education; and 4) Implementing systems gradually from smaller ranges to wider, thus facilitating IT management in the process of education

Technology conditions the brain to pay attention to information very differently than reading. The metaphor that Nicholas Carr uses is the difference between scuba diving and jet skiing. Book reading is like scuba diving in which the diver is submerged in a quiet, visually restricted, slow-paced setting with few distractions and, as a result, is required to focus narrowly and think deeply on the limited information that is available to them. In contrast, using the internet is like jet skiing, in which the jet skier is skimming along the surface of the water at high speed, exposed to a broad vista, surrounded by many distractions, and only able to focus fleetingly on any one thing.

e. Information Management System

An organizational information system that supports management is the management information system (driver's license). A good driver's license is helpful in the efficiency of time and material organizational transactions and supports operating functions, management, and decision making. The use of information technology to run the information system enables the flow of information to run fast and accurately. Online databases conducted by the education and college services make it easier to exchange information and data quickly. This convenience means the efficiency of implementation of education in all things. The academic information

⁷ M. Husaini, *Pemanfaatan Teknologi Informasi Dalam Bidang Pendidikan (E-Education)*, Jurnal Mikrotik. Hal. 3-4

system with the online base data at the institute is very helpful to parents with students development information at all times. Online base data provides at-ease information for learners, parents and communities alike. The existence of interactive educational institutions facilitates communication between educational institutions and customer communities. The vision, mission and profile of the institution can easily be known to the public in general, so it will impact the growing interest of the people in the institution. The academic web provides the ease of learners, professors, employees, parents, and communities, such as the academic advances of learners, daily developments, administrative obligations, freshman registrations and so forth.

f. E-Learning

E-learning according to Onno W. Purbo is an information technology applied to education in a virtual form. Using e - learning, we can learn anywhere and at any time without the space and time barrier. Learning independent creativity through e-learning encourages learners to analyze and synthesize knowledge, explore, process, and exploit information, produce written, information and knowledge on their own. The possessed protege is engaged in scientific exploration. E-learning is through the Internet, so learning is a learning resource not only of teachers but of those around the world. Facilities that learners can use to learn through e-learning: e-book, e-library, expert interaction, email, matour list, news group, broadwide web (www.), and others. The sites that provide e-learning, some of which are: networked, computer science, plas.com, media savvy, and many other sites. Implementation of e-learning can be done by various parties. College is expected to be able to hold their own e-learning. Simply put, learning can be performed by a teacher by creating a home site or a college website linked to a website related to the lesson. The site can be filled with visualized lesson materials, tasks and evaluations.

g. Learning Media

The learning media is one of the products of technology as a medium in communicating information. It is hoped that using this medium will stimulate the minds, feelings, interests and attention of learners in such a way that the learning process can take place. Furthermore, the learning process will be more effective because the use of learning media allows for the inclusion of obstacles in the communication processes of learners such as physiological, psychological, cultural, and environmental barriers. Researchers have found that there are various ways that participants process learning information that is unique. Some students have

it easier to process visual learning information, others have it easier to process information through auditorials, and others have it easier to process learning information through direct or kinesthetic touch or kinesthetic (Bobby Deporter & Mike Hernacki).

Based on this explanation, it can be concluded that a general application of information technology in education is the information system that expands the process of quickly and accurately transmitting data or information. Learners and teachers can also use e-learning that can be used anywhere. And the facilities it provides are conducive to a student's creativity. Among them are e-library, e-book, mailing groups, and others. And there is also the learning medium as a material medium given by a teacher.

h. Student Social Behavior Factor

Factors that affect reading interest can be both personal and institutional. Personal factors include intelligence of age, gender, reading ability, attitude, and psychological needs. Institutional factors include appropriate reading, social status background, and ethnic groups and the influence of peers, parents, teachers, television, and movies (Haris and Sipay).

Among the factors that contribute to students' lack of interest in reading are:

1. Environment

The environment is a major factor in the shaping of one's personality, the ward can be distinguished into two that is, the family environment and the community environment.

2. Family Circle

The first ward we know is the family circle. Thus the family environment is a major factor in one's personal influence. A mother is a vital role in instilling the character of her child.

Our grandmother passed on to her grandchildren a poor habit of giving information through the spoken word like storytelling. So do parents now. They prefer to watch television, listen to the radio and chat in information. So as not to model the habit of reading to her child. Important examples are employed in the implanting of nationalistic values for young children. Children tend to model their behavior, and each individual behavior that is modeled on a child will be endured and may gradually follow a child's daily behavior.

3. Community Environment

Humans interact more in society, so the community environment became one that had a role in the people around him. If a friend spends too much time on gadgets rather than reading book, then the assignment of a friend is as a reminder

i. Increasingly sophisticated technology

The rapid development of information technologies does not make up for proper use and supervision especially towards the student who is the most technologically user. Entertainment media such as TVS, computers, hand phone, and so forth have pervades the student's life. It even unwittingly indulges its user to lose his identity as a studious and well-read student.

j. The positive and negative effects of technology on learners

⁸The positive effects of their use of technology include the Internet as a communication medium makes it much easier for learners, as a medium to access lessons and information of any kind, can facilitate lessons through online applications such as zoom and Google meet especially since the lesson has to be done online because of the covid-19 pandemic, and students do not rigidly apply technology in everyday life.

While not only does it bring positive effects from communication technologies it also brings negative effects, such as reducing learners' social traits as they tend to prefer to communicate through the Internet at face to face. This anti-social trait can also lead to changes in social patterns. It also can interrupt study time. A student may go too far with regard to the Internet, for example, during our study sessions, messages from social media (messenger, WhatsApp, Instagram) and finally focused on the phone's screen. In addition, it curbed interest in reading of learners. With technological advancement, it makes it easier for students to search out learning materials that their teachers have not given them, and that leads students to read books because everything is already available online.

CONCLUSIONS

From discussions above the researchers conclude that this research is suitable to use qualitative research method. Qualitative research is an inquiry approach useful for exploring and understanding a central phenomenon. Qualitative researchers are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences. By using this method, researchers can find that the problem that occurs today is the reading behavior of students which has decreased since the rapid development of technology. And technology really has a big impact on students' reading behavior. The positive impact is that students can easily access lessons and reading

⁸ Accessed from: <http://kayiskay.blogspot.com/>

texts in various features. But it can have a negative impact if the facility is misused to access things outside of school lessons in excess.

Technology will be more advanced with various sophistications produced. However, it should not make students lazy in reading and studying. Students can use technology as well as possible and in moderation. If excessive in its use it will be very bad for students.

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