Internet and learning resources: a case study of the Library and Information Science Students at Universitas Padjadjaran

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Abstract. Student learning and reading activities today cannot be separated from internet media. This study aims to determine the benefits of information retrieval systems, the positive impacts and negative impacts of internet use and learning activities, especially those related to the student reading activities in the internet era. This study uses a case study approach with purposive sampling by selecting 20 students of class 2014 from the Library and Information Science Program of the Faculty of Communication Sciences, Universitas Padjadjaran as the research informants. Data collection techniques were obtained through in-depth interviews, observation and literature review. The results showed that the internet became the primary source of information for most students of the Library and Information Science Program at the Faculty of Communication Sciences, Universitas Padjadjaran. However, they still assume that the credibility of printed information sources is stronger than online information sources. This can be seen from printed books or online and electronic sources which become the results of the form of printed books being the main reference for the college assignments which are considered to be done more seriously by the informants.

1. Introduction
The internet has brought changes to people's reading behavior[1]. With the advantages offered by the internet, such as in ease and speed, then the internet becomes the main media for many people to access information sources[2]. The development of open access and open science in various universities also has a contribution to the academic community to be more active in accessing the
online sources[3]. With these phenomena, student learning and reading activities today cannot be separated from internet media.

Learning is a process of changing individual behavior resulting from the individual's environmental order[4]. Student learning activities cannot be separated from reading. Reading is an activity that encourages a person to think about achieving his goals through understanding the text in various media and involving language skills[1]. Reading media develops along with the development of information and communication technology. Someone who reads should no longer be seen only by how much he buys books or borrows books in the library, but also what he accesses on the internet and what is done to the information he gets, etc.[1]. Internet media should be a medium that can complement the conventional reading media. The Internet provides search engines equipped with information retrieval systems. The information retrieval system is a system used to find documents as needed in a large database[5]. The information retrieval system process includes representing, storing, organizing and providing access for users to easily rediscover the existing documents according to their needs[6], [7]. Thus, an information retrieval system aims to collect and organize the information in a system so that it can be easily recovered when it is needed.

The students of the Library and Information Science (LIS) Program and the Faculty of Communication Sciences (Fikom) at Universitas Padjadjaran (Unpad) study the subject of "Information Retrieval System." Knowledge and skills about the "Information Retrieval System" are expected to help the students utilize information retrieval systems, including search engines. This study aims to determine the benefits of information retrieval systems, positive impacts and negative impacts of internet use and learning activities, especially those related to student reading activities in the internet era.

The results of this study are expected to contribute to the universities providing the learning media according to the characteristics of millennial generations who tend to be connected to the internet at any time.

2. Method
This study uses qualitative research methods with a case study approach. Case studies are empirical research about a contemporary phenomenon in the context of the real world. Case studies are relevant to answering descriptive research questions or in the form of an in-depth explanation of a phenomenon[8]. The steps in this study can be seen in figure 1.

This study used purposive sampling by selecting 20 students of class 2014 from the LIS Program of the Fikom Unpad as the research informants. The selection of informants was based on the criteria that they had followed the "Information Retrieval System" course and used online and offline sources as reading sources. Data collection techniques were obtained through in-depth interviews, observation and literature review. The research data was analyzed and interpreted. Triangulation is done by triangulating the theory.

3. Result and Discussion

3.1. The Benefits of the Global Information Retrieval System for Students
The search engines are one of the tools in the information retrieval system. According to the informants, the availability of access to the information makes the information open. With the abundance of information sources on the internet, people who initially seek the information in books or printed information sources turn to the internet.

The information retrieval system uses keywords to rediscover the existing information or documents. With the right keywords, it will produce the right document. On the one hand, the information retrieval system provides the effectiveness in finding the information by our keywords or needs, on the other hand, by exploding, too many information sources. All search results from search engines on the internet are not necessarily accurate and tested, so the search engine users must be smart in filtering information. For this reason, the informants said that users of the information
retrieval system must be smarter and more critical in choosing the information to get the information from the sources of information that are truly reliable, cheap, easy and efficient. One way to filter information is to use an application that can detect the hoaxes[9].

In the academic field, the informants said that the global information retrieval system facilitated and accelerated the information tracking, especially in the academic field. The information retrieval system makes it easy for the informants to find references to fulfill their college assignments. A respondent gave an example that he could have a good achievement index, even last semester she got a Grade Point Average of 4.00. From the highest scale of 4.00.

Another exciting thing is that according to the informants, they can trace the whereabouts of their friends on the internet so they can keep in touch with old friends.

An effective and trusted information retrieval system must be able to browse; produce up-to-date, economical and precise information; disseminate and filter information; help and facilitate interpersonal communication[10].

3.2. Positive Impact of Internet Use
The informants realized that internet use had an impact, both positive and negative impacts. According to informants, the positive impact of using search engines is that people become technologically literate and know more about the internet; digital sources become more accessible; can find the latest news and new things every day; adding insight; increase curiosity; help find information related to the task; help facilitate communication.

The informants stated that with the internet, someone could often search for various information and read it, there are new things every day, from not knowing to know so that he can add their insight. When you get one information and feel dissatisfied with the information, we can search for similar information or information that relates to the search engines, in other words; the internet also increases curiosity. For example, after reading an article, then want to read another article. Or when getting

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**Figure 1.** Steps of Research adapted from Yin [8]
information about health, for example, can immediately find out the medicine or follow the advice from the information read.

According to the informants, the advantage of internet media is that it provides the convenience, speed, efficiency, and effectiveness in accessing the information. Many sources of information can be stored and are cheaper than buying printed books. If we usually only get one source from the printed books, then by using the internet we can get many sources of information. Search engines have helped the informants to add references to fulfilling the college assignments they are working on. The informants claimed to often seek references through search engines, even though they still searched through printed books or other collections. On the internet, they can get more specific information so that they get more suitable references. Thus, the internet has helped in meeting information needs for daily work. The increasing knowledge brings informants to communicate more easily. A research result states that the internet is a good medium for learning, connected to the wider world and participates in society[11].

3.3. Negative Impact of Internet Use

Besides giving a positive impact, the informants also realized that the internet had a negative impact. The informants considered that with the development of the internet, many people were fixated on online information and a lot of misuse of information. Many people believe more in the information obtained through search engines than the actual reality. On the internet, there are billions of information, both information that has credibility, and information that has no credibility at all. A lot of information is found to have no credibility but has a lot of convincing evidence, resulting in someone being easily fooled by the information they read. If we do not have filters, we cannot distinguish the hoaxes or not; then we will get the wrong information and even tend to fool ourselves. Therefore, the informants suggested that users could better choose information that was correct and useful for themselves. If the wrong choice of information might harm ourselves, moreover there is a lot of information whose credibility is still in doubt, and there is also information about hoaxes scattered everywhere. The number of hoax news demands to search from one source to another. We only have to be smart to find information.

The ease of access to information also makes many people want to get instant information; sometimes it is making people do not fully understand a topic, authorship, and bibliography. They become lazy to find information from other sources such as books, magazines, newspapers and other sources of physical documents. Printed collections such as reading books have become less desirable and neglected. Some informants thought that reading a book was far more useful and the information was more precisely compared to reading information on the internet.

With the background of the LIS Program, the informants also highlighted the impact of the internet on the library. According to the informants, the internet makes printed libraries and collections neglected. Many people think that everything can be obtained from the internet so that the library is rarely visited. About the changes in information behavior in the digital era, libraries need to revitalize the library's functions so that they can continue to play a role as lifelong learning centers [2].

In the academic field, the internet can make it easier for people to do plagiarism. Some people just copy and paste the information without reading more carefully and did not include the source of information when it spread. Even according to the informants, it is currently difficult to find where the source of information is. We often find the same information on several websites. Also, the lack of ability in information retrieval can lead to ineffective searches on the internet. Inaccurate queries will produce the information that is not right even too broad so that it spends much time. Finally, the problem of free internet access makes adult content accessible to children.

Regarding communication, nowadays many people are busy with their gadgets, they communicate more often through their gadgets than face to face communication, on the other hand, the internet makes people communicate and get the information easily. Finally, the internet makes the students more extravagant because they must always provide a budget to buy internet quota.
The Pew Research Center's research found that the internet has a positive impact on education, personal relations, and economic growth, but has a negative impact on the development of morality in developing countries[12]. Other research results in Malaysia show that the excessive internet use can cause problems in interpersonal, behavioral, physical, psychological and occupational relationships. However, the internet users can also help to improve their skills so they can work better[13].

3.4. Internet and Student Learning Resources
Most informants mentioned that to fulfill their college assignments, they more often access the internet than reading books, magazines, newspapers or watching TV. According to them, gadgets make the internet more simple and accessible. For college assignments which according to the informants are more serious, such as to make a thesis proposal and thesis writing, they still choose the printed book. Printed books are considered to have higher credibility compared to the online sources. Another reason for using printed sources is because they did not find the right online reference sources for their college assignments. If the printed book has an electronic or online version, then they will choose the online or electronic version. Another source used by informants is by visiting the library, using online databases such as databases for online journals.

The printed version of the book is an option compared to the online or electronic version of the book for novels or comics. By reading printed novels or comics, the informants felt they could better explore the contents of the novel and the comics. Collecting printed novels and comics is also a hobby of some informants. Thus, the informants prefer printed books for entertainment purposes or relax like comics or novels.

4. Conclusion
The internet has become the main source of information for most students of the Library and Information Science Program and the Faculty of Communication Sciences, Universitas Padjadjaran. However, they still assume that the credibility of printed information sources is stronger than online information sources. This can be seen from the printed books or online and electronic sources which become the results of the form of printed books being the main reference for the college assignments which are considered to be done more seriously by the informants.

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