Record and Library Journal
https://e-journal.unair.ac.id/index.php/RLJ

Volume 10, No. 1, 2024
e-ISSN: 2442-5168

Information experience of undergraduate students when optimizing google search for their study

Yanuar Yoga Prasetyawan, Heriyanto, Mecca Arfa

Library Science, Diponegoro University, Semarang, Indonesia

Paper Type:

Research Paper

Submitted: 19 December 2023
Revised: 7 February 2024
Accepted: 12 June 2024
Online: 22 June 2024

* Correspondence:
Heriyanto

E-mail:
heriyanto@live.undip.ac.id

Abstract

Background of the study: Google has become the most popular search engine worldwide and its name has its own merit within information search, as such when people are searching for information they would most often say 'google it' rather than 'look for it'.

Purpose: The present research employs information experience perspective that investigates students of Universitas Diponegoro when they are using Google search to help complete their assignments.

Method: The research method used to capture the information experience of Universitas Diponegoro students when using Google to look for information associated with their studies was the qualitative research method. Semi-structured interviews were used in this study to explore further information experience of students in exploring information using the Google search engine

Findings: The findings revealed that undergraduate students have their own techniques when using Google search. They are well familiar with formulating search queries; the majority being able to take on this stage of task easily. However, students found it challenging when they have to start evaluating which of the search results would give the most relevant information to help with their assignments.

Conclusions: Students' prior knowledge appeared to be the governing factor of how well they are able to determine which of the compiled information sources are best for their study. Every student has their own best approach and experience to optimize Google. Generally, it was found that the students within this study had similar ways in formulating keywords to search for information on Google and were only different in certain details of experiences.

Keywords*: Information experience; Google search; Undergraduate students; Information search*

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

Introduction

Google has become the most popular search engine worldwide and its name has its own merit within information search, as such when people are searching for information they would most often say 'google it' rather than 'look for it' (Tan, 2022). The Google search engine is highly integrated into both the academic and daily lives of students, making it recognizably an unparalleled object to study within the scope of library and information science research. The Google search engine has simple interface that many, especially for students, find easy to learn how to use and operate (Alotaibi, Johnson, & Rowley 2023; Alotaibi & Johnson 2020). Google is, thus, much preferred by undergraduate students when they would want to extract and compile information sources especially when completing assignments (Heriyanto & Hariyati, 2020; Sin, 2015)

With the degree of difficulties in concepts that has to be learned and understood in university, students have obvious need for information with their studies. To satisfy that need, universities typically provided sources of information through libraries. However, it is now the case that library service and collections are less used by students. This is more or less influenced by the predominance of digital technology in recent generations. Students that are raised within the recent era are largely familiar with information and communication technologies. Among these technologies is Google, in which they use to retrieve information.

Despite the high standard of quality of information required inherent to the academia within university, it does not make students be more reluctant in using Google as the first media to search for information. This is further facilitated by the Google Scholar feature devised in 2004 that is able to find and filter scientific information. Students now have access to an easy-to-use, comprehensive and highly effective search tool. They consider Google Scholar as a one stop shopping place for their research needs (Alotaibi & Johnson 2020).

We now come to an era of the undeniable fact that library is no longer the only place that sources of information can be retrieved from. The rapid development of the Google search engine is able to disrupt the existence of libraries as a place to access sources of information. Sources of information are now available online and can readily be accessed through the easily operated search engine. This provides the large incentive for students to use them. Todorinova (2015) and Bloom & Deyrup (2015) suggested that Google has a great influence – and even shapes – how students search for information associated with their assignments and research activities. In 2018, researchers also conducted a similar study under a different context, whereby students of the Faculty of Humanities, Diponegoro University were the objects of study. The results of the study show that Google was the primary tool that is used by Diponegoro University students to search for information (Prasetyawan & Krismayani 2019).

The choice of students in using Google to browse for information cannot completely be said fallacious. The previous research had succeeded in revealing the preferences and reasons as to why students use Google to search for information. This research explores information experience of undergraduate students when they use Google search for their study. Information Experience is understood as a phenomenon where a person experiences or obtains meaning when they interact with information within aspects of their daily lives (Bruce et al., 2014). By employing information experience lens, the researchers are brought to the existence of students' thinking and feeling when interacting with Google search and the information resources available in it (Bruce et al. 2014; Prasetyawan 2019; Miller, Davis, & Partridge 2019)

Since the release date of Google Scholar to the public in 2004, several studies have emerged to compare Google Scholar's information retrieval capabilities with other open access search tools and scientific databases subscribed by libraries. The studies indicated that although Google Scholar was able to retrieve high number of information, the relevance and scientific weight of the information compiled tended to be low when compared to scientific databases

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

subscribed by libraries (Cho & Hwang 2019; Singh et al. 2023). However, there were researches that challenges such findings. One of the examples is the research conducted by Duffin. He compared information search results performance between Google Scholar and 5 other open acces search tools using spesific search method. The results of this study indicated that Google Scholar was outperformed specialty open access search tools (Duffin, 2020).

There was also a study that compared student perceptions of the Google Scholar interface with the Library Information Retrieval System. The results of this study indicated that the Google Scholar interface was simpler and easier to use than the Library Information Retrieval System (Wu & Chen 2014; Golub et al. 2023). Thus, it is not surprising that Google is still the favorite of students when finding information resources. This finding was also reinforced by the results of (Bloom & Deyrup, 2015; Perruso, 2016; Prasetyawan & Krismayani, 2019; Todorinova, 2015). The finding confirms why students are inclines to use Google as their primary information search tool. It is not an easy matter to force students to change their preferences or habits of searching for information through Google. Instead of forcing change, the more strategic step is to approach and understand the behavior or experiences of students when interacting with Google as well as the information resources contained there.

The study of information experience is essentially a study of human experience that focuses on the subjectivity of a person over certain aspects of their life. As a study that focuses on the subjectivity of each individual, specifically on how people seek, evaluate, use and share information, it can provide more complex and in-depth insights compared to when examining the stages in seeking information or using and sharing information that are more mechanical in practice (Bruce et al., 2014).

A study that observed information experience was conducted by Yates & Partridge (2014), exploring people's experience in using information to learn about health. Prior to that, Demasson (2014) investigated how people engage in serious leisure activities by using information. Sayyad Abdi, Partridge, & Bruce (2016) researched web designers and developers encounters related to their information experiences. More recently, Heriyanto & Anggitia (2021) explored how village library staff experience information resources when managing library services.

Seeing these facts, it is equally important, if not more, to get a comprehension of the student information experience when using Google. Therefore, the purpose of this study is to reveal the way students experience information, how they engage with information, what they experience from information, and how they think and feel regarding their information experience (Miller et al., 2019).

Method

Research type

The research method used to capture the information experience of Diponegoro University students when using Google to look for information associated with their studies is qualitative research method. The qualitative research method according to Bogdan and Taylor in Khoiri, (2018) explains that qualitative research is one of the research procedures that produces descriptive data in the form of speech or writing and the behavior of the people being observed.

Population and sample

Interviews were conducted with 8 Diponegoro University students from various study programs, including: naval engineering, electrical engineering, environmental engineering, business administration, physics, general medicine, and law.

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

Data collection

Semi-structured interviews were used in this study to explore further information experience of students in searching information using the Google search engine. Through these interviews, students were asked to recall their experiences using Google to search for information to help complete certain tasks or assignment. This technique was used with the aim to stimulate the memory of certain and specific experiences and not general memories (Fitzgerald, 2018). Through this the authors would be able to depict students' experiences when using Google in a coherent and systematic manner.

Data analysis

The collected data was analyzed using Thematic Analysis. The approach identifies and analyzes patterns or themes in the data that are considered important to describe the phenomenon being studied (Braun and Clarke 2006). The analysis process consists of three stages which were data introduction, code generation, and theme identification. Individually and collaboratively, the researchers read the interview transcripts repeatedly as part of the first stage, i.e., data introduction. After all interview transcripts were read, a summary that reflected the authors thought on the the data contained in the transcript was made. In the second stage, the authors generated the code, the code was identified based on the data relevant to the phenomenon that is the focus of this study. Any code that appeared in this study was documented and discussed during the data analysis process. The theme search was carried out on all collected data. In searching for these themes, in addition to paying attention to the relationship between codes, attention is also paid to the relationship between the emerging themes.

Result and Discussion

The results and discussion of this research are presented in 3 interrelated sub-chapters. The first sub-chapter describes the various works that students must take on during their time in university. Said works would give rise to the need for information. The tasks that students must take on would determine the information needed and thus how they would approach in searching for that information. Therefore, in the second sub-chapter, research findings were presented on how students identify their information needs. Finally, discussion is made on the student's information experience when searching for information. The information experience discussed in the present paper specifically is the student experience of searching for information through Google.

University tasks undertaken by students

In this sub-chapter, the tasks that are undertaken by the samples of students involved in this study is explained. The first type is preparation of essays or scientific papers generally done by students when taking certain courses. Assignments could be in the forms of reports and analysis of observational activities of a case or written ideas taken from various scientific sources. The second variety of task is the final project or thesis, generally undertaken by final year students who had completed all credits of courses required by the study program. In composing a thesis, students do not normally do it alone, i.e., students are guided by one or two lecturers who have expertise in the subject of the study being written.

The third type of task is only carried out by general medical students who have completed their undergraduate programs and are continuing onto their professional education level, popularly known as co-assisting (residency). In this level of the students' education, they are tasked to provide assistance to a patient or group of patients with a diagnosis of a certain

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal, 10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

disease in which they have to observe every action taken by an assigned doctor. After the observations are made, the students are required to make a written report along with scientific analysis based on the latest research. Later, the work will be presented in front of the supervising doctors.

Information needs and how students identify them

The discussion in the sub-chapter on the types of tasks that students must complete depicted the variety of those tasks. Each type of task will, of course, have its specific information needs. This need for information factors the information seeking behaviour of the student (Savolainen, 2017). Needs of information raises as triggered by certain situations such as the rising of problems or trivial conditions to be solved/ fulfilled and this is also with respect to the individual's cognitive and emotional conditions. Such situation will be influenced by the cultural and social context in which individuals act and interact (Borlund & Dreier 2014). Based on the factors that bring about need for information, the actions taken by students will also vary.

As described in the previous paragraph regarding the cognitive and emotional effects on information needs, Ingwersen classified information needs into 3 types. The 3 types of information needs include: verificative information need (VIN), conscious topical information need (CIN), and muddled topical information need (MIN). These three types of information needs are distinguished on the basis of how well an information need is identified in an individual's consciousness at a given point in time (Borlund and Dreier 2014). It was further explained that a high motivation and curiosity of an individual is a positive influence on the success of information search (Borlund & Dreier 2014; Amani et al. 2023).

Many students tend to possess conscious topical information need (CIN). Individuals who have this type of information need are characterized by their ability to identify their information needs quite well. On the one hand, these individuals also experience uncertainty in identifying the particular information that they need, leading them to be more exploratory in their search and will not rarely encounter uncertainty during this information search stage (Borlund & Dreier 2014). They most often shown will show the tendency to explore large scope of research topics. This characteristic was shown in the information experience of two naval engineering students, Rahmat and Intan. When determining the research theme for the thesis they were working on, they would ask and discussed research trends in their field with their seniors and lecturers. Junaeni, a general medical study program student, also showed the same disposition. Starting from his interest in studies involving experimental animals, he used search engines to explore similar studies. Additionally, pharmacology (the science of drugs) was also the object of study that he was interested in. Accordingly, Junaeni explored previous research that examined these two objects of study.

The students' success or failure in identifying their information needs designate how much the students are able to meet their information needs. There were two information behaviors identified that were generally acted out by students relating to information systems and humans. Information behavior associated with interaction with humans is manifested in questioning and discussion activities. Meanwhile, information behavior associated with interaction with information systems is manifested by searching and browsing. Searching is characterized by the use of keywords (queries) as the foundation for students to find the information they are looking for. In contrast, browsing is the information behavior characterized by activities to fulfil information needs with or without query formulations.

Student information experience using google

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

Nowadays, digital format information sources which are available online are the first choice of reference for students. This choice is not without reason. Considering that today's students are digital natives, it is not surprising identify the most instant and easily available scientific sources accessing media would be their main preference in conjuring information. The abundance of access to information resources, further pushed by the hassle that comes with the complexity of information retrieval tools provided in libraries, encourages students to use search engines that they are more familiar with to get information. This path of action is significantly more preferred than the use database of scientific journals subscribed by libraries (Georgas, 2014, 2015).

A recent study related to the media preferences in accessing information sources conducted at Diponegoro University determined that Google was most favored by students (Prasetyawan and Krismayani 2019). The findings of this study are in congruent with the results of this study. Not few of the Diponegoro University students who had been working on scientific papers used Google as an accessing media to retrieve information sources. Some used Google Scholar to find references in the form of scientific articles and others used regular Google search engine to find references in the form of web pages.

Taufiq, an electrical engineering student, shared his experience in using Google to find scientific references associated with his academic tasks. The way he generally approaches information searching was no different with other students who used Google, i.e., by entering keywords in the search field. However, what was interesting was the way in which information was selected. He found the information needed by opening all the findings (recalls/results) that appeared on the first page, without exception. According to him, even though the search results he found were in the form of a blog page, for example, he would still consider using it by examining the scientific content in the blog page. Taufiq measures the integrity of the article that he would access by looking at the scientific references used.

Another experience was recounted by Tifa, a student of the environmental engineering study program, when working on an assignment. The approach taken by Tifa in using Google mostly involved Google Scholar to compile information sources. Tifa would use the search column within Google Scholar as people would using the conventional Google search engine. However, what was slightly different was that Tifa used the advanced search tools available on the left side of the Google Scholar page. Through this tool, Tifa could determine the time span of certain publications for the scientific articles she wanted to find.

Taufiq and Tifa's search method was no different, they applied a simple search (basic search). With a simple search they managed to find the information they needed. This finding was in accordance with a study conducted by Pulikowski and Matysek which stated that compared to other databases, Google was able to retrieve information effectively even though it used simple queries (Pulikowski and Matysek 2021).

The same case with Nafis, a general medical study program student who was pursuing medical professional education (residency). In this education phase, medical students who have completed their study of general medical science will apply their knowledge through interactions with patients with a particular disease case. Through interaction with patients, resident students are required to find the latest solutions relevant to the patient's disease case. The solution will later during this period be presented in front of the reviewer board that acts as the supervising specialist doctor. To find this solution, a resident students will need supporting references. Nafis used Google Scholar as his first destination to look for his information needs. As a student who worked in the field of health science, Nafis always paid attention to the latest year of publication of journal articles when choosing references as well as the geographic and demographic context of the incident in the contents of the journal article. The aim was to increase the precision and suitability between the results of previous research

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

and the case being studied at hand. This findings is in line with a study conducted by Loan and Sheikh which stated that Google Scholar is able to retrieve scientific sources in the form of journals, even those of high reputation / high impact factor available for open access (Loan and Sheikh 2018). The finding provides that Google Scholar is able to offer sufficient and relevant academic information.

An intriguing reason was also imparted by Resi, a student of the business administration study program, regarding her choice in using Google Scholar to search for the information needed. This is in relation to the easy access to citations of the selected information. Through Google Scholar, Resi would look for information in the form of a thesis that was stored in the repository of a university and journal. Resi would use the thesis and journals as sources of information in order to work on the task of making research proposals. In using Google Scholar Resi was no different from other students, i.e., incorporating trial and error in formulating keywords. Through this, Resi would hope to find relevant research variables compiled in the search. What was unique about Resi's approach was the alternating use of regular Google when keyword formulation attempts entered in Google Scholar did not return the desired results. With the regular Google search engine, Resi would stick to the mission of finding information in the form of a thesis or journal. According to Resi, the alternative solution produced the information she wanted. However, this information would normally not be immediately used by Resi. She would search for the information she had found through regular Google search on Google Scholar with very specific keywords. This was done to easily access citations provided by Google Scholar but not available on regular Google.

The authors found quite interesting findings through the experience told by Intan, a naval engineering student, about her reason for using Google to find references for her thesis assignment. Even though her study program is a quite specific field of study, Intan still managed to easily find examples from previous researches that are in line with the theme she had chosen through Google. Her thesis research raised 4 research variables, meaning that there were 4 different themes and 4 keywords that she had to incorporate as queries to search for information. Intan used a fairly simple approach by entering one by one the keywords that she had formulated and added the word ".pdf" so that she would find articles in the ".pdf" file format. She would obtain 4 different groups of files of sources based on the themes relevant to her information needs. Through the articles on 4 different themes that she found, Intan would compose her research arguments.

The information experience using Google told by the student samples in this study showed that Google is an unrivalled preferred information accessing media able to meet information needs. This is noting that confidence in formulation and reformulations of queries through the search engine (Google) was facilitated by the individuals. They were able to choose from the large amount of information found, even though considerable effort might have still been needed to find the information they were looking for. This finding was in line with the study conducted by Alotaibi and Johnson which stated that Google is the main preference in terms of information searching, because users believed that they perceived themselves as very competent in using the Google search engine (Alotaibi and Johnson 2020).

Conclusion

Google search is a popular search engine among undergraduate students. Through its simple appearance and operating features Google has ability to provide high recall results for students who need information despite the fact that no particular instruction or teachings are given to students in how best to use Google. Every student has their own best approach and experience to optimize Google. Generally, it was found that the students within this study had similar ways in formulating keywords to search for information on Google and were only

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

different in certain details of experiences. Especially in terms of selecting information, each student had unique of experiences. By knowing the information experience of students when using Google, the result of this study have a practical implication by providing evidence to the library service providers about the unique experiences of the undergraduate students when looking of information so that the libraries may enhance their information services based on the students information behaviour. This study is also contribute theoretically by providing new way to describe the way students engage with information resources and how this sources have influence them in completing their assignments. However, this study is limited to undergraduate students, this study could have been developed more by investigating the postgraduate students' information experience as it may gain another insight.

Acknowledgments

We would like to acknowledge and thank all those who have given valuable contributions to this study

Authors' Contributions

All authors have contributed to the final manuscript. The contribution of all authors: conceptualization, methodology, formal analysis, writing original draft preparation, writing review and editing. All authors have read and agreed to the published version of the manuscript.

Conflict of Interest

All authors have no conflict of interest related to this study.

Funding

This study did not receive any funding.

References

Alotaibi, F. A. A., Johnson, F., & Rowley, J. (2023). Google Scholar or University Digital Libraries: A comparison of student perceptions and intention to use. *Journal of Librarianship and Information Science*, *55*(4), 906–920. https://doi.org/10.1177/09610006221111197

Alotaibi, F., & Johnson, F. (2020). Why we like Google Scholar: postgraduate students' perceptions of factors influencing their intention to use. *Aslib Journal of Information Management*, *72*(4), 587–603. https://doi.org/10.1108/AJIM-10-2019-0304

Amani, N., Hadiapurwa, A., Khaerunnisa Syafitri, N., & Nugraha, H. . (2023). The role of @literarybase X account in fulfilling information literation needs. *Record and Library Journal*, *9*(2), 187–197. https://doi.org/10.20473/rlj.V9-I2.2023.187-197

Bloom, B., & Deyrup, M. M. (2015). The SHU Research Logs: Student Online Search Behaviors Trans-scripted. *The Journal of Academic Librarianship*, *41*(5), 593–601. https://doi.org/10.1016/j.acalib.2015.07.002

Borlund, P., & Dreier, S. (2014). An investigation of the search behaviour associated with Ingwersen's three types of information needs. *Information Processing and Management*, *50*(4), 493–507. https://doi.org/10.1016/j.ipm.2014.03.001

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology Virginia. *Qualitative Research in Psychology*, *2*(3), 77–101.

Bruce, C., Davis, K., Hughes, H., Partridge, H., & Stoodley, I. (2014). Information experience: Contemporary perspectives. *Library and Information Science*, *9*, 3–15. https://doi.org/10.1108/S1876-056220140000010001

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

Cho, O.-H., & Hwang, K.-H. (2019). Effects of Simulation Education with Problem-based Learning on Information Literacy, Self-directed Learning Ability, and Academic Self-efficacy of Nursing Students. *Journal of Digital Convergence*, *17*(4), 239–247.

Demasson, A. (2014). *Information literacy and the serious leisure participant : variation in the experience of using information to learn Final Seminar PhD Candidature Principal Supervisor : Professor Helen Partridge Associate Supervisor : Professor Christine Bruce* [Queensland University of Technology]. https://eprints.qut.edu.au/78615/

Duffin, K. I. (2020). Comparing Open Access Search Tools to Improve Interlibrary Loan Fulfillment Efficiency. *Technical Services Quarterly*, *37*(4), 415–431. https://doi.org/10.1080/07317131.2020.1810442

Fitzgerald, S. R. (2018). Serving a Fragmented Field: Information Seeking in Higher Education. *Journal of Academic Librarianship*, *44*(3), 337–342. https://doi.org/10.1016/j.acalib.2018.03.007

Georgas, H. (2014). Google vs. the Library (Part II): Student Search Patterns and Behaviors when Using Google and a Federated Search Tool. *Portal: Libraries and the Academy*, *14*(4), 503–532. https://doi.org/10.1353/pla.2014.0034

Georgas, H. (2015). Google vs. the Library (Part III): Assessing the Quality of Sources Found by Undergraduates. *Portal: Libraries and the Academy*, *15*(1), 133–161. https://doi.org/10.1353/pla.2015.0012

Golub, K., Tan, X., Liu, Y. H., & Tyrkkö, J. (2023). Online subject searching of humanities PhD students at a Swedish university. *Journal of Documentation*, *79*(7), 308–329. https://doi.org/10.1108/JD-03-2023-0044

Heriyanto, & Anggitia, S. (2021). Information experience of village library staff. *Information Development*, 1–6. https://doi.org/10.1177/02666669211030600

Heriyanto, & Hariyati, M. (2020). Students' Information Resources during Their Involvement with Research Projects: Indonesia setting. *Library Philosophy and Practice*. https://digitalcommons.unl.edu/libphilprac

Loan, F. A., & Sheikh, S. (2018). Is Google scholar really scholarly ? *Library Hi Tech News*, *35*(3), 7–9. https://doi.org/10.1108/LHTN-11-2017-0078

Miller, F., Davis, K., & Partridge, H. (2019). Everyday life information experiences in Twitter: a grounded theory. *Information Research*, *24*(2), paper 824.

Perruso, C. (2016). Undergraduates Use of Google vs. Library Resources: A Four-Year Cohort Study. *College & Research Libraries*, *77*(5), 614–630. https://doi.org/10.5860/crl.77.5.614

Prasetyawan, Y. Y. (2019). Pengalaman Informasi (Information Experience) Sebuah Alternatif Perspektif Komprehensif dalam Kajian Ilmu Informasi dan Perpustakaan. *ANUVA: Jurnal Kajian Budaya Dan Ilmu Perpustakaan*, *3*(2), 101–108. https://doi.org/10.14710/anuva.3.2.101-108

Prasetyawan, Y. Y., & Krismayani, I. (2019). Kajian Perilaku Informasi Mahasiswa: Studi Kasus Mahasiswa Fakultas Ilmu Budaya Universitas Diponegoro. *Baca: Jurnal Dokumentasi Dan Informasi*, *40*(2). https://doi.org/10.14203/j.baca.v40i2.480

Pulikowski, A., & Matysek, A. (2021). The Journal of Academic Librarianship Searching for LIS scholarly publications : A comparison of search results. *The Journal of Academic Librarianship*, *47*(5), 102417. https://doi.org/10.1016/j.acalib.2021.102417

Savolainen, R. (2017). Information need as trigger and driver of information seeking: a conceptual analysis. *Aslib Journal of Information Management*, *69*(1), 2–21. https://doi.org/10.1108/AJIM-08-2016-0139

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21

Sayyad Abdi, E., Partridge, H., & Bruce, C. (2016). Web designers and developers experiences of information literacy: A phenomenographic study. *Library and Information Science Research*, *38*(4), 353–359. https://doi.org/10.1016/j.lisr.2016.11.008

Sin, S. C. J. (2015). Demographic Differences in International Students' Information Source Uses and Everyday Information Seeking Challenges. *Journal of Academic Librarianship*, *41*(4), 466–474. https://doi.org/10.1016/j.acalib.2015.04.003

Singh, V. K., Srichandan, S. S., Piryani, R., Kanaujia, A., & Bhattacharya, S. (2023). Google Scholar as a pointer to open full-text sources of research articles: A useful tool for researchers in regions with poor access to scientific literature. *African Journal of Science, Technology, Innovation and Development*, *15*(4), 450–457. https://doi.org/10.1080/20421338.2022.2124689

Tan, C. (2022). The curious case of regulating false news on Google. *Computer Law and Security Review*, *46*(October 2021), 105738. https://doi.org/10.1016/j.clsr.2022.105738

Todorinova, L. (2015). Wikipedia and undergraduate research trajectories. *New Library World*, *116*(3/4), 201–212. https://doi.org/10.1108/NLW-07-2014-0086

Wu, M. Der, & Chen, S. C. (2014). Graduate students appreciate Google Scholar, but still find use for libraries. *Electronic Library*, *32*(3), 375–389. https://doi.org/10.1108/EL-08-2012-0102

Yates, C., & Partridge, H. (2014). Exploring information literacy during a natural disaster: The 2011 Brisbane flood. *Library and Information Science*, *9*, 119–134. https://doi.org/10.1108/S1876-056220140000010006

To cite this document:
Presetyawan, Y. Y., Heriyanto, & Arfa, M. (2024). Information Experience of Undergraduate Students When Optimizing Google Search for Their Study. *Record and Library Journal*, *10*(1), 12-21.
DOI: 10.20473/rlj.V10-I1.2024.12-21