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## Explaining the Components of Access in Information Seeking Process in Virtual Space Based on Radical Change Theory: The Case Study of Newcomer Bachelor Degree Students of Faculty of Education and Psychology of the University of Tabriz

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### Abstract

**Purpose:** explain the components of access based on one of the dimensions of fundamental change theory in information-seeking from students in virtual space.

**Method:** The present study is a qualitative using semi-structured interviews. The population consists of University of Tabriz bachelor students in Education and Psychology Faculty, selected using snowball sampling, Finally, using the opinions of 21 students, the required data came to saturation. To analyze qualitative data and extract components from coding, the grounded theory and MaxQDA software were used.

**Findings:** To design access model and to discover a common concept of the definition of the phenomenon in question (access), considering causal conditions (context of using the knowledge; and ability of others and types of content used in virtual space), contextual variables (access tools), strategies (how to access information resources, having the necessary skills to use information resources independently, using the knowledge and abilities of others in virtual space), intervening conditions (barriers to accessing information) and consequences of access (application of virtual space for users) was explained.

**Conclusion:** The emergence of electronic resources in virtual space and the unique features of virtual space have changed the information-seeking behavior of students, and need to have necessary abilities and skills in the field of information literacy, computer literacy, Internet literacy, communication literacy, critical literacy, and culture literacy.

**Value:** The value of this research is to show one of the essential dimensions of the theory of fundamental change (access) that is affected by the virtual environment.

**Keywords:** *information-seeking behavior, access, fundamental change theory, students, virtual space*

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## Extended Abstract

### Introduction

Access is one of the main factors in the information-seeking process. Therefore, careful consideration of changes in information-seeking behavior under the influence of the digital environment in terms of access requires understanding of change in methods of access to information and ways to Use it. Because the lack of necessary knowledge regarding the nature of this subsystem of the macro system of information-seeking behavior can lead to challenges in developing appropriate information services and libraries. According to an increasing level of technology intermediation as the primary tool for access to information, technology skills are the main amplifier or obstacle in the access process, and expertise in it can facilitate the information seeking approach (Khosrojerdy, 2005)

Studies show that despite the undeniable role of access in the information-seeking process, there have been few theories about this regard. One of the most specific theories in this field is to explain the information-seeking behavior of young people and adolescents or people who have recently entered the new virtual information spaces and electronic environment based on it, is the theory of fundamental change which was presented by Elisa Dresang in 1990. The results of his research, which is manifested in the form of this theory, have shown that access, along with other factors such as interaction, communication, in new virtual information spaces, is faced with fundamental changes. In his view, the more information literacy students have, the better they can deal with the latest information space (Fisher, Mckechnie, Erdelez, 2008).

The main purpose of this research is to explain the components and concepts of access to identify the unique patterns and approaches of first-year students in the information-seeking process, especially in virtual space.

### Method

The current research approach is qualitative using semi-structured interviews; the method of data collection was done through a face-to-face interviews. The research population was newcomer bachelor-degree-students of the faculty of Education and Psychology (University of Tabriz). The sampling method was a snowball. Finally, the data was matured by points of 21 students. The data was analyzed by MaxQDA. In this study, for designing an access model, seven questions were asked. The questions have become Thematic, and each of the questions was analyzed under the main category.

### Findings

After analyzing the qualitative data and the method of coding the grounded theory, From the answers given to the questions with Thematic of application of virtual space for users, types of content used in virtual space, access tools, how to access information resources, having the necessary skills to use information resources independently, using the knowledge and abilities of others in virtual area, barriers to information access in virtual space, 19 main categories and 39 subcategories were extracted which are presented in Table 1.



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**Table 1. The main categories and subcategories extracted related to access**

Categories	Subcategories
Everyday use	<b>Required Reading Material, necessary Reading Material for life</b>
Entertainment	<b>The study of the novel, watching movies, photos, listening to music, watching Jokes</b>
Scientific	<b>Scientific videos</b>
Scientific and research	<b>Psychology, Knowledge and information science, philosophical, historical information</b>
Unlimited access tools to information	<b>Smartphone, laptop, and tablet</b>
limited access tools to information	<b>Computer, and library</b>
Easy access	<b>Access to the most required information</b>
Difficult access	<b>Challenging, challenges resulting from spiritual - emotional issues</b>
Medium access	<b>Access to the required information sometimes</b>
Information skills	<b>The experience of using</b>
Communication skills	<b>The skill of asking others</b>
Technological skills	<b>Computer skills</b>
Reference groups	<b>Skilled people, successful people, and professors</b>
Social groups	<b>Friends, anonymous users of virtual space</b>
Everyday use	<b>Solving problems, life issues</b>
Scientific-educational	<b>Concours, Scientific</b>
Disuse	<b>be independent</b>
Educational barriers	<b>Educational Challenges, Weaknesses in Internet learning skills, weaknesses in computer training skills</b>
Infrastructural and technological barriers	<b>Lack of service provider centers, lack of Internet infrastructure access, inherent challenges of Internet resources, Filter, the inefficiency of search engines, computer virus, slow- speed internet</b>
Individual barriers	<b>Weakness in volition</b>



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According to the research findings, many students use smartphones because of easy access, easy mobility, and ancillary facilities such as a dictionary and use the laptop to carry out their tasks, opening PDF files, educational videos, and even entertainment. The main reason students use personal computers, is the small size of tablets and smartphones. For reasons such as a large amount of information, extensive advertising, and lack of focus, they prefer the library. Most students, for meeting the information needs related to their discipline and carrying out research, turn to the virtual space. The multimedia feature of virtual space has attracted students to entertainment such as reading novels, watching movies, viewing photos. Also, features like the extensiveness of information and finding the required information quickly and sometimes with difficulty have invited students towards virtual space. Some of them looking for the issues that are important to them in life. Students perform the most tasks themselves for excessive use and to pass educational courses in schools, reading books and ease of use, independently, and some believe that humans need each other. On the other hand, students have considered the breadth and variety of information, dealing with lots of marginal things, being familiar with how to use the Internet and computer principles, etc., as significant barriers to accessing data in virtual space.

**Conclusion:** The emergence of electronic resources in virtual space, especially the Internet, the World Wide Web, and the unique features of virtual space such as ease of access, breadth, and

diversity of information, and its multimedia has changed the information-seeking behavior of students. Students need information literacy, computer literacy, internet literacy, communication literacy, critical literacy, and culture literacy.

**Keywords:** *information- seeking behavior, access, fundamental change theory, students, virtual space*

### Extended Abstract References

- Abdollahi, H. & Ejtehnejad Kashani, S (2015). A comparative study on the status of the study of non-grammar study among Iranians over four consecutive waves of the Indicators of General Culture in Iran (2009-2012) in Proceeding of *the National Conference on the Study of Culture in Iran*, by Ismat Momeni and Abolghasem Isa Morad, 109-125. Tehran: Librarian.
- Ahmadi, H, Yari, Sh (2015). *Essentials and Challenges of Study in Iran in the Proceeding of the National Conference on the Study of Culture in Iran*, compiled by Ismat Momeni and Abolghasem Isa Morad, 243-259. Tehran: Librarian.
- Ahmed, Y., Oiza, J. A., Omah, J. E., & Murjanatu, A. (2021). Information Seeking Behavior of Undergraduate Students in the Faculty of Arts, Ahmadu Bello University (ABU) Zaria. *Kaduna Journal of Educational Studies (KJES)*, 1(2), 34-42.
- Akarsu, O., & Dariyemez, T. (2014). The reading habits of university students studying English language and literature in the digital age. *Journal of Language and Linguistic Studies*, 10(2), 85-99.
- Chen, H.y. & Chang, C.Y. (2005). Personal Epistemological Beliefs, Critical Thinking Abilities, and Information-Seeking Behavior of College Students. In P. Kommers & G. Richards (Eds.), *Proceedings of ED-MEDIA 2005--World Conference on Educational Multimedia, Hypermedia & Telecommunications* (pp. 1836-1840). Montreal, Canada: Association for the Advancement of Computing in Education (AACE). Retrieved July 31, 2021 from <https://www.learntechlib.org/primary/p/20343/>.
- Dresang, E. T. (2005). The information-seeking behavior of youth in the digital environment. *Library Trends*, 54(2), 178-196. doi: 10.1353/lib.2006.0015
- Dresang, E. T., & K. Koh (2009). Radical Change Theory, youth information behavior, and school libraries. *Library Trends*, 58(1), 26-50.
- Famil Rouhany, S., Mousavi, F (2017). Media Literacy and Information Behavior in Cyberspace, *Depiction of Health*, 8(2), 126-133.
- Fisher, C, McKechnie, L, Erdelez, S (2008). *Theories of information behavior*. (Translators: Firoozeh Zare Farashbandi, Ghulam Heidari, Mohsen Haji zin al-Abedini and Leila Maktabifard). Tehran: Librarian (Original work published: 2005).
- Hariri, N (2006). *Principles and methods of qualitative research*. Tehran: Islamic Azad University, Science and Researches Branch.
- Harizavi, M., Zare-Deris, Z., Mahidashti, M., Aaft, N., Valipour, A., & Momtazan, M. Factors affecting information behavior behaviors of Abadan University of Medical Sciences students. *Journal of Modern Medical Information Sciences*, 6 (1) :37-43 <https://dx.doi.org/10.29252/jmis.6.1.38>
- Khosrawi, F, Mansourian, Y Alipour Hafezi, M & Ali Mohammadi, D (2008). The Effect of Electronic Resources on Study. *Book of the Months of General*, 8 (128).
- Khosrojerdi, M. (2007). Conceptualizing the "access to information" Process and Representing a combined model: some consequences of technology on access. *Journal of Academic librarianship and Information Research*, 39(44)
- Koh, K. (2011). Proposing a Theoretical Framework for Digital Age Youth Information Behavior Building upon Radical Change Theory. Retrieved from [http://purl.flvc.org/fsu/fd/FSU\\_migr\\_etd-2849](http://purl.flvc.org/fsu/fd/FSU_migr_etd-2849)
- Koh, K. (2013). Theory-to-research-to-theory strategy: A research-based expansion of radical change theory. *Library & Information Science Research*, 35(1), 33-40. doi:10.1016/J.LISR.2012.09.003
- Koh, K. (2015). Radical Change Theory: Framework for Empowering Digital Youth. Retrieved from <https://b2n.ir/d19003>



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Lincoln, V. S., & E. G. Guba (1985). Naturalistic Inquiry. Beverly Hills, CA: Sage. Literature, Technology, and Early Writing Instruction. *Language Arts*, 78(3), 207-216.

Marefat, R (2014). A Brief Look at Information Management in Virtual Social Networking Networks in the *Proceedings of the First National Conference on Human and Information Interaction*, Compiled by Nosrat Riaohinia and Yazdan Mansourian, 633-694. Tehran: Chapar Publishing.

Memarbashi, P., Zamani Miandashti, N. (2013). An Analysis of Information-Seeking Behavior Through The Internet Among Agricultural Undergraduate Students at Razi University of Kermanshah. *Iranian Agricultural Extension and Education Journal*, 9(1), 33-49.

Naseri, Z & Nouruzi, A. (2016). The Impact of the Digital Environment on Youth Adult, s Reading Habits. *Research on Information Science and Public Libraries*, 22 (2), 213-217.

Navadeh, M., Sepehr, F. (2009). Information seeking habits of managers of the Tehran Municipality Cultural and Arts Organization. *National Studies on Librarianship and Information Organization*, 20(2), 213-240.

Negahban Bonabi, T, Ansari, A. (2011). The Opinions of Students in Rafsanjan University of Medical Sciences about studying in Digital and printed Environments. *Journal of Medical Education Development Center*, 8 (2), 124-131.

Saa'id, S. A., & Abd Wahab, Z. (2014). The impact of digital-based materials on undergraduates' reading habit. *International Journal of Social Science and Humanity*, 4(3), 249. doi: 10.7763/IJSSH.2014.V4.357

Shabani, A., F. NaderiKharaji, M. R. Abedi (2012). Reading Behavior of Graduate Students in Digital Environment at University of Isfahan through 2008-2009: A Case Study. *International Journal of Information Science and Management (IJISM)*, 10(1), 1-14.

<https://doi.org/10.1108/00242531111166683>

Weber, H., Becker, D., & Hillmert, S. (2019). Information-seeking behaviour and academic success in higher education: Which search strategies matter for grade differences among university students and how does this relevance differ by field of study? *Higher Education*, 77(4), 657-678. <https://doi.org/10.1007/s10734-018-0296-4>



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