Review of a domestic scientific supervisor on three articles prepared by a 3rd year doctoral student for the degree of Doctor of Philosophy (PhD) in the educational program "8D03206 - Library and Information Systems" of the Department of World History, Historiography and Source Studies of the Faculty of History of the Kazakh National University named after Al-Farabi Martin Elihaki Kanyika on the topic "Digital Literacy Competencies Among Students of Higher Learning Institutions in Kazakhstan", "User Perspectives on Library Digitization and Its Impact on Research Capabilities" and "Adapting to New Technologies: A Systematic Literature Review on Blockchain Implementation in Academic Libraries"

## Review

Digitization of academic libraries has now become a common trend in both developed and developing countries. However, most studies have noted that students, especially in developing countries, do not fully utilize the services offered by digitized libraries due to lack of digital literacy and awareness of the latest technologies being implemented in libraries. Therefore, the doctoral student analyzed this issue by focusing on user opinions on library digitization, the level of digital literacy among students, and the implementation of blockchain technology in academic libraries.

As part of this work, the doctoral student published three research articles, namely: "Digital Literacy Competencies Among Students of Higher Learning Institutions in Kazakhstan", "User Perspectives on Library Digitization and Its Impact on Research Capabilities" and "Adapting to New Technologies: A Systematic Literature Review on Blockchain Implementation in Academic Libraries".

The first article, "User Perspectives on Library Digitization and Its Impact on Research Opportunities," provides an in-depth analysis of how library digitization improves academic research. The findings highlight users' overwhelmingly positive perceptions of the availability and accessibility of digital library resources. The ability to instantly access information and the ability for multiple users to simultaneously use a single document are notable benefits of digitization. However, the study does not ignore the challenges users face, such as licensing restrictions, subscription costs. and copyright issues. The author's recommendations, including ongoing training for students in information literacy and copyright navigation, are practical and highly relevant in today's digital landscape.

The second article, Digital Literacy Competencies among Students in Higher Learning Institutions in Kazakhstan, addresses an important aspect of digital resource use. The study effectively identifies gaps in students' digital literacy skills that may prevent them from maximizing the benefits of digital library services. The study is particularly valuable as it highlights the importance of curricula that equip students with the skills to critically evaluate online information. The candidate's doctoral student's advocacy for increased digital literacy initiatives is in line with

global trends in higher education, further demonstrating the relevance and impact of the dissertation.

The third Martin's article namely, "Adapting to New Technologies: A Systematic Literature Review of Blockchain Implementation in Academic Libraries", demonstrates the candidate's ability to interact with new technologies. The systematic literature review methodically examines how blockchain can improve security, transparency, and efficiency in academic libraries. This study not only highlights the potential of blockchain in digital resource management, but also highlights the importance of continuous innovation in the library sector.

The candidate's recommendations, three articles directly related to his dissertation topic, are well researched and offer valuable insights into key areas impacting academic libraries today. The candidate's recommendations, including increasing institutional funding for digital libraries and integrating more open access resources, are highly commendable and should be considered for implementation. The scholarly contributions made through this research will undoubtedly benefit both library professionals and academic institutions.

Based on the quality of the research, the relevance of the topics being researched, and the contribution of the findings to the field of library and information science, I strongly recommend three doctoral papers for the candidate to be eligible for the PhD without any reservations.

Candidate of Historical Sciences, Associate Professor of the Department of World History, Historiography and **Source Studies** 

\_\_\_ Sadykova R.O.

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