Library as a Bridge between Science and Society: Educational Functions and Social Impact

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Abstract

The dynamic relationship between science and society is gaining increasing importance in the context of accelerated technological development, information overload and changing educational needs. This article examines a key interrelationship between the library and education as a bridge for the transfer of scientific knowledge to society and for building an informed, critically thinking and active society. Modern libraries are analyzed as social and educational centers that provide access to scientific information, support the development of scientific and information literacy and encourage public participation in scientific and educational processes.

The theoretical framework of the study places libraries in the context of formal, informal and lifelong learning, emphasizing their educational mission and their role in bridging the gap between academic knowledge and public understanding of science. In this context, practice-oriented educational initiatives are also considered as an important tool for connecting higher education with professional realization. As an example of good practice, PROJECT BG05SFPR001-3.002-0001 "From higher education to employment" is presented, which supports the acquisition of practical skills, adaptation to a real professional environment and the application of academic knowledge in the library and information sector.

In the context of digital transformation, libraries are considered strategic participants in the development of open science, digital inclusion and equal access to educational resources. The article reflects how libraries function as a bridge between scientific communities and society, translating complex scientific knowledge into accessible forms and creating spaces for learning and social dialogue. In this context, the initiative of the National Library of Bulgaria to open literary corners of other countries and their national libraries is presented as a proven universal bridge between different libraries, cultures, countries. In addition, the article discusses challenges such as the digital divide, institutional limitations and the need for new professional competencies.

The article emphasizes that the synergy between science, education and practice, supported by practical training and professional development initiatives, is a key factor for the sustainable development of the library environment and society.

Keywords: *Science and society; Library and education; information literacy; libraries as social institutions; public access to knowledge; lifelong learning*

1. Introduction

In the context of digital transformation and open science, the modern library is establishing itself as a key institution in the processes of knowledge transfer, scientific communication and social development. Libraries are becoming key intermediaries between academic knowledge and the general public, exerting a strong influence through their educational functions and social impact. The traditional model of an institution-guardian of cultural heritage and a repository of documents is transformed into a model of a dynamic institution that provides access to information, training and social support (IFLA, 2019). [8]
The development of the information society and the need for critical thinking show that libraries play a key role in scientific research, social inclusion and the formation of active civil societies.

2. Theoretical Framework: The Library as a Mediator between Science and Society

2.1. Transformation of the Library Mission
Following the publication in 2013 of the International Federation of Library Associations and Institutions (IFLA) report on the main directions for the development of the information society (IFLA

Trend Report) and its subsequent updates in 2018 and 2019, library professionals are directing their efforts towards building the new information ecosystem. This Trend Report (2013) is a strategic analytical document of IFLA, developed through an interdisciplinary dialogue between librarians, researchers and experts from different fields of society. Its main goal is to identify macrotrends that are transforming the global information environment and the role of libraries in it. IFLA formulates five main transformation directions:

      1. New technologies will expand and limit access to information – digital inequality and control over information are becoming critical issues.

      2. Online education will democratize learning, but will change traditional educational institutions.

      3. The boundaries of privacy will be rethought – a balance between security and freedom of information.

      4. Hyperconnected societies will create new forms of civic participation and social movements.

      5. Technological transformation will impact economic models and information ecosystems.

The report describes the theoretical framework of the library mission. It affirms libraries as the infrastructure of knowledge and places emphasis on information literacy and digital access. It transforms the understanding of the library as a social mediator between science, technology and society. [8]

Subsequent updates of the IFLA Information Society Trends Report in 2018 and 2019 build on the theoretical framework for the future of libraries. They provide a critical analysis of the digital environment and a direction for a dynamic model for the development of the library sector. The future goal is to build libraries as an actively functioning microworld in a global society.

In essence, the results of the IFLA Trend Report represent a pedestal on which modern libraries build on their core functions, by:

- o   becoming bridges between scientific knowledge and public participation;
- o   developing their educational and social mission;
- o   promoting their development as centers for digital literacy, civic engagement and scholarly communication.

2.2. The Library as a Mediator of Scientific Knowledge

Our analysis shows that in the modern information ecosystem, the library plays the role of a strategic mediator between the creation of scientific knowledge and its public perception. This mediating function goes beyond the traditional understanding of the library as a passive provider of information resources and positions it as an active participant in the processes of scientific communication, knowledge transfer and public education (Lankes, 2016). [5] In the context of the knowledge society, libraries function as an infrastructure that ensures the accessibility, interpretation and social relevance of scientific information.

It is proven that libraries also have a mediating function in scientific communication. As is known, scientific communication includes the creation, publication, dissemination and use of scientific results. Libraries are actively involved in all stages of this process by managing scientific publications, digital repositories and open access services. In this way, they facilitate the transition of scientific knowledge from academia to society and various professional communities.

Modern academic libraries offer consulting services for scholarly publishing, research data management, and bibliometric analyses that support researchers and increase the visibility of their scholarly output. [2] Through these activities, libraries become mediators not only between authors and readers, but also between the scholarly community and society at large. In particular, one of the key functions of the library as a mediator is to translate complex scholarly concepts into a form that is understandable to the general public. This is realized through the promotion of scientific research (Translation and Interpretation of Scientific Knowledge), public popular science events and lectures, as well as through specialized educational programs and workshops.

Our research provides convincing evidence that modern libraries also have functions as a connecting link between the digital infrastructure and open science

The development of digital technologies transforms the intermediary function of libraries by building institutional repositories, digital libraries and platforms for scientific communication. These tools provide global access to scientific resources and support the principles of open science by removing barriers to knowledge and encouraging public participation in scientific processes. [8]

Libraries are becoming centers for the management of scientific data and digital collections, which expands their mediatory function beyond the traditional book depository and positions them as active participants in the scientific infrastructure.

3. Educational Functions of the Library

As educational institutions, libraries support the development of information, scientific and media literacy. Through training and consultations, they help users:
- o formulate specific scientific questions;
- o use academic databases;
- o evaluate scientific publications;
- o create their own research projects.

This educational function turns the library into a bridge between scientific knowledge and lifelong public learning, which is a key element of the modern library mission. [3]

3.1. Support for Formal Education

Libraries participate in the learning process through educational resources, bibliographic training and consultations.

Illustrations of good practices can be found in following project in Bulgaria: Project BG05SFPR001-3.002-0001 "From Higher Education to Employment".

The project creates opportunities for practical training and professional realization of students by connecting the academic environment with the real sector. It demonstrates a model for the integration of education, scientific knowledge and practical work, which can also be applied in the library and information field. [9]

The project is a good example of connecting educational institutions and the labor market through practical training, internships and the development of professional competencies. In the context of the library and information environment, it demonstrates a model for integrating academic knowledge with real professional practices and developing digital and information skills in students.

The so-called Student Internship Project, in its different phases, helps graduating students to get acquainted with real working conditions and to assess first-hand whether they would like to continue with this career opportunity. In addition, the students gain invaluable practical experience on the spot and get an irreplaceable chance to start working in their specialty after completing their university education. project

By participating in this project, students gain practical experience in learning a specific profession and improve the quality of their education. [7]

3.2. Supporting Scientific Research

Modern university libraries function as active partners in the scientific research process, and not only as providers of knowledge and information resources. Their role covers the entire life cycle of scientific research - from the formulation of research tasks and the development of methodology to the publication and evaluation of scientific results. In this sense, libraries become an institutional mediator between scientific knowledge and its social application:
- o one of the key areas of support is the participation of librarians in the preparation of systematic literature reviews and meta-analyses. They provide expert assistance in developing search strategies, selecting databases, defining criteria for inclusion and exclusion of publications and ensuring reproducibility of results. This role increases the scientific validity of research and supports interdisciplinary knowledge. [6]
- o a second direction is the development of bibliometric and scientometric services. Libraries support the analysis of scientific output through indicators such as citation index, impact factor and altmetrics. These analyses are important for both individual researchers and institutional strategies and science policies. Through them, the library mediates between scientific output and mechanisms for public and institutional evaluation of science. [2]
- o A third essential component is research data management (RDM). University libraries develop policies for data storage, structuring and reuse, support the creation of data management plans and promote the FAIR (Findable, Accessible, Interoperable, Reusable) principles. In this way, libraries strengthen open science and democratize access to scientific results. [6]

In the context of the "library as a bridge between knowledge and society", these functions ensure:

- o greater transparency of scientific research;
- o facilitating the transfer of knowledge to practice and policies;
- o creating sustainable scientific ecosystems.

3.3. Lifelong learning

Public libraries play a central role in building a culture of lifelong learning by providing non-formal education, digital literacy and civic competences. They function as accessible public spaces that reduce social inequalities and support the active participation of citizens in the information society.

One of the main educational functions is the development of digital skills – basic computer literacy, critical evaluation of online content, protection of personal data and use of electronic services. This training supports social inclusion and reduces the digital divide, especially among vulnerable groups such as the elderly, the unemployed and migrants. [1]

A second important direction is civic education and information literacy. Through lectures, discussions and public initiatives, libraries promote critical thinking, media literacy and participation in democratic processes. They provide a platform for public dialogue and shared knowledge, thus functioning as a mediator between scientific knowledge, institutions and citizens. [8]

- o In addition, libraries develop:
- o entrepreneurship and job skills courses;
- o STEM and science literacy training;
- o cultural and educational programs for all age groups.

These activities strengthen social capital and create sustainable communities through access to knowledge and education. [1]

4. Social Impact of the Library

In addition to their educational and technological role, libraries also perform a social function by creating spaces for public debate and interaction between scientists, citizens and institutions. Through discussions, exhibitions and public lectures, libraries help to popularize scientific results and encourage dialogue between different social groups.

This function supports democratic access to knowledge and turns the library into a platform for scientifically informed civic participation. [4]

A very good demonstration here is the so-called literary and educational corners of the National Library of Bulgaria.

The initiative to open literary and educational corners of different countries creates spaces for cultural exchange and popularization of national literatures and various social projects. These corners perform educational and social functions, encouraging intercultural dialogue and presenting science and culture of different countries to a wide audience. [10]

The initiative of the National Library "St. Cyril and Methodius" to create literary and educational corners of different countries functions as a tool for cultural diplomacy and intercultural dialogue. Through thematic spaces presenting literature and cultural heritage of different peoples, the library builds a bridge between countries, promotes intercultural understanding and expands the educational function of the library environment

5. Challenges and Prospects

The main challenges facing modern libraries include digital transformation, the development of artificial intelligence, disinformation and the need for new professional competencies.

6. Conclusion

As a synthesized conclusion from our research, it can be reasonably argued that libraries function as a strategic bridge between science and society through education, scientific communication and social initiatives. The fragmentary good practices mentioned demonstrate the potential of libraries to support cultural dialogue, education and social development.

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