



### **International Educators Conference**

Hosted online from Toronto, Canada

Website: econfseries.com 7<sup>th</sup> August, 2025

# PREPARING LIBRARY SPECIALISTS TO USE ARTIFICIAL INTELLIGENCE TOOLS: A METHODOLOGY FOR DEVELOPING DIGITAL COMPETENCIES

Ubaydullayeva Durdonakhan Ma'rufjon daughter tatudurdona@gmail.com (+998 91 045 65 97)

## **Abstract:**

This article explores the necessity of preparing library professionals to use artificial intelligence (AI) tools and the importance of developing their digital competencies. It discusses methodological approaches for equipping librarians with practical AI skills, including training modules and learning strategies. The integration of AI technologies into library services is also analyzed, emphasizing how these tools can enhance both service delivery and the efficiency of library staff. The study concludes that proper methodological training can lead to the successful digital transformation of library activities.

**Keywords:** library, artificial intelligence, digital competencies, AI tools, information services, training programs, librarian.

In today's digital society, libraries are no longer just repositories of information but are evolving into hubs of digital services. Artificial intelligence (AI) plays a key role in this transformation. These changes require library professionals to acquire new digital competencies, particularly in understanding and using AI tools effectively.

1. Use of AI Tools in Libraries

Currently, AI is being applied in libraries in the following areas:

- Automated cataloging and classification;
- Personalized information services for users;
- Text analysis and recommendation systems;
- 24/7 support via chatbots.

These tools not only simplify service delivery but also optimize the daily work of library professionals. However, effective use of such technologies requires proper training and methodological preparation.





### **International Educators Conference**

Hosted online from Toronto, Canada

Website: econfseries.com 7<sup>th</sup> August, 2025

# 2. The Need for Digital Competency Development

Digital competency for library professionals includes:

- Understanding and using AI tools in library tasks;
- Data analysis, digital ethics, and information management;
- Effective communication in digital environments with users.

These competencies help librarians adapt to modern work conditions and deliver innovative services.

Methodological Approaches to Training

To develop digital competencies and AI literacy, the following methodological approaches are recommended:

Modular training programs: Covering AI basics, machine learning, and their application in library science;

Practical workshops: Training on using tools like ChatGPT, Zotero, and Koha;

Online learning platforms: Utilizing resources such as Coursera, Udemy, and Google AI Tools;

Project-based learning: Creating or improving AI-based services within the library context.

Stages of Preparing Library Specialists to Use AI Tools

Assessment – Identifying current knowledge and skill levels;

Planning – Designing training modules based on competency gaps;

Instruction – Delivering theoretical and practical lessons;

Monitoring and Evaluation – Measuring growth in competencies and practical application.

Preparing library professionals to use AI tools is a key factor in the digital transformation of library services. With effective methodological approaches, libraries can equip their staff with modern digital competencies, enabling the integration of AI-powered services and improving both user satisfaction and operational efficiency.

Benefits of AI Technologies in Library Processes

AI offers a number of advantages when integrated into library workflows:

- Optimized information retrieval: AI systems generate personalized recommendations based on user queries.





### **International Educators Conference**

Hosted online from Toronto, Canada

Website: econfseries.com 7<sup>th</sup> August, 2025

- Predicting user needs: AI can analyze user behavior to anticipate future information demands.
- Efficient management of digital archives: Large volumes of digital documents can be analyzed quickly and accurately using AI tools.
- Language recognition and translation: AI tools help librarians work with documents in foreign languages through automatic translation.

Challenges and Limitations of AI in Libraries

Despite its benefits, the use of AI in libraries is not without issues:

- Lack of staff preparedness: Many library workers lack sufficient understanding of AI technologies.
- Infrastructure limitations: Some libraries do not have the technological capacity to implement AI solutions.
- Ethical and legal concerns: Ensuring the confidentiality and privacy of user data when using AI remains a significant concern.

Therefore, continuous professional development and training for library staff in AI usage is essential to avoid these risks and to maximize the potential of AI in libraries.

## References

- 1. Vanek, J. Digital Literacy. Washington, DC: U.S. Department of Education, LINCS, 2020. 7 p.
- 2. Cox, A.M.; Mazumdar, S. Defining Artificial Intelligence for Librarians. London: SAGE Publications, 2022. 12 p.
- 3. Shahzad, K.; Khan, S.A.; Iqbal, A. Readiness of Library Staff to Use AI Tools.

  Bingley: Emerald Publishing, 2024. 14 p.
- 4. Das, R.K.; Ul Islam, M.S. Application of Artificial Intelligence and Machine Learning in Libraries: A Literature Review. Ithaca, NY: arXiv.org, 2021. 16 p.
- 5. UNESCO. Digital Competencies and Artificial Intelligence in Education. Paris: UNESCO Publishing, 2022. 38 p.
- 6. OECD. Artificial Intelligence and the Digital Transformation of Learning. Paris: OECD Publishing, 2021. 55 p.





## **International Educators Conference**

Hosted online from Toronto, Canada

Website: econfseries.com 7<sup>th</sup> August, 2025

7. Goryacheva, T.A. Digital Transformation in the Library Sector: A Competency-Based Approach. — Moscow: Bibliotekovedeniye Journal, 2020. — 9 p.