

How AI will change the job of librarians: Galala University case study

Articles – Full text

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Abstract

Artificial intelligence has become a significant role in the field of libraries and information because it is now thought to overlap with all scientific fields and has had a significant impact on journal development. This has led to a significant change in the role of library and information specialists. It is imperative that experts who are well-versed in and significant to them in that research introduce new services. A case study on the condition of the central library at GALALA University, the change in services, and the function of library specialists as a resource for information will be given along with the role that artificial intelligence plays in the field of library and information specialists. because of the sophistication and progress of the services provided in those services.

Keywords

Artificial intelligence, Academic libraries, Egypt, librarians as a job

Introduction:

In recent years, librarians have played an important role in the transformation of their profession, from simply managing physical books to effectively managing a variety of digital resources and services. As Artificial Intelligence (AI) increases in sophistication and adoption across industries, the potential benefits it offers to automate tasks, improve information retrieval, and redesign the way librarians engage with users and process collections mean that the work of large-

scale libraries is more difficult but these developments also present challenges, including acquiring new skills, resolving ethical dilemmas, and redefining the role of librarians in a digital environment. The aim of this study is to examine the different effects of AI on the work of librarians.

Our goal is to explore the benefits and challenges that AI can have on user services, library operations, and library professional development.

- **Definition of the Artificial intelligence:**

Artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. (1)

- **History of the Artificial intelligence:**

- 1- Early AI Applications (1950s-1970s)
- 2- Machine Learning and Statistical Analysis (1980s-1990s)
- 3- Text Mining and Information Extraction (2000s)
- 4- Deep Learning and Big Data (2010s-present)

Objectives

- **Enhance Efficiency and Automation of Routine Tasks:**

Routine functions like as cataloguing, data input, and circulation management can be automated using AI technologies, potentially minimising the need for human intervention for example in will explain this feature in two part of Routine tasks in library.

- 1- **Cataloguing and Metadata Creation:** Generative AI has the ability to speed up cataloguing operations by automating tasks like digitisation and metadata development. However, it is crucial to understand that cataloguing entails more than just establishing MARC data. Librarians play an important role in deciding what information should be included in records, adjusting to evolving best practices, and maintaining cultural responsiveness. Generative AI may help with these activities, but human skill will still be required to make informed decisions. (2) for example, using ChatGPT for cataloguing, ChatGPT can generate reliable records that meet

numerous metadata requirements. The model accurately extracts key metadata such as title, author, publisher, publication date, subject headings, and other descriptive components. ChatGPT can generate MARC records in a variety of formats and languages, including English, German, and Russian. ChatGPT produced correct and original authority records, adhering to both RDA and Dublin Core standards. (3)

- 1- **Circulation:** Using AI techniques inside circulation services, such as making recommendations based on customers' previous searches and borrowing patterns, will result in more personalised and intuitive services. It may also improve access to born-digital assets by identifying sensitive content and allowing libraries to democratise non-sensitive portions, and self-check in and check out.

As we can see, artificial intelligence may simplify library operations, reduce workload, and increase productivity in standard routines.

- **Improve Information Retrieval:**

With so much digital information available, librarians may struggle to manage and select resources effectively without modern tools. Electronic databases, Online Public Access Catalogues (OPACs), web search engines, and robotic systems tailored for book retrieval and delivery are examples of modern information retrieval methods used in libraries to enable quick and innovative access to information. Most web search engines nowadays, including Google, include speech recognition into their systems. This allows their users to say the word or phrase they want to search for, and the web search engines enter it into the search box using Natural Language Processing (NLP) before searching and showing the results. In addition, Murphy (2015) reported that robotics technology is being used to free up space and make information resources more accessible to users. (4)

There are many information retrieval AI tools like Semantic Scholar, Keenious, Research Rabbit, so I will explain one of applications.

- **Research Rabbit:** A free online "citation-based literature mapping tool." It is a visual literature review software mapping tool that is similar to Spotify. The tool connects your research interests to related articles and authors, it is helpful to:

1-Visual Literature Mapping Tool: Interactive and User-friendly Interface, Complex Relationships Visualization, New Paper Recommendations and Weekly Updates.

2-Paper Discovery App: Advanced Search Functionality, Real-time Literature Monitoring, Paper Collection and Sharing

3-Data Analysis Tool: Ability to Generate Research Landscapes, Network Visualization and Analysis, Customizable Citation Reports

4-Opportunities Platform: Connects Researchers with Opportunities, Vast and Diverse Opportunities Pool, Community Building and Feedback Gathering.

- **Skill Development:**

There may be a mismatch between librarians' existing skill set and the technological skills required to effectively employ and administer AI products. So we have to identify the new abilities that librarians must learn in order to properly use and incorporate AI tools into their workflow, As AI technology grows to be greater included into library operations, librarians have to analyse new abilities to correctly use those gear and control their converting roles. The following are sizable regions of ability improvement required for librarians to leverage the energy of AI:

- 1- Basic Understanding of AI: Librarians should be familiar with basic AI concepts such as machine learning, natural language processing, and robotics.
- 2- AI Tools and Software:
Proficiency in AI tools for programming, recommendation engines and digital reporting.

- **Redefine User Interaction:**

As artificial intelligence technology is increasingly integrated into library services, the role of librarians in contacting and supporting users will grow exponentially. To successfully innovate user services in the context of AI, librarians must focus on several areas:

1. Implementation of AI tools for user assistance:

Librarians can use artificial intelligence tools like chatbots and virtual assistants to provide fast customer service 24/7. These technologies manage queries, help find resources, and provide recommendations so librarians can focus on more

complex tasks. (5)

2. Personalized user experience:

AI can analyze user data and provide recommendations for books, articles, and other resources. Booksellers can use AI insights to customize services according to users' needs and wants, increasing user satisfaction and engagement.

3. Teach patrons how to use AI tools:

As AI tools become available, librarians must train patrons on how to use AI tools successfully. This includes running workshops, producing training materials and providing personal support to help users navigate. (6)

4. Improving Digital Literacy

Librarians should strive to improve users' digital literacy in order to effectively use AI technology and other digital resources. This includes teaching client's critical evaluation skills to help them determine the reliability and validity of AI-generated data. (7)

5. Support for research and data analysis:

Artificial intelligence tools can assist scholars in data analysis, literature review, and other scholarly tasks. Librarians can help users access and use AI tools more efficiently, making research more efficient.

6. Developing AI-enabled projects:

Librarians can create and deliver AI-enabled projects that cover topics such as how AI works, its applications, and its impact on society. These tools can help users understand the capabilities of AI in various fields and how it affects our daily lives.

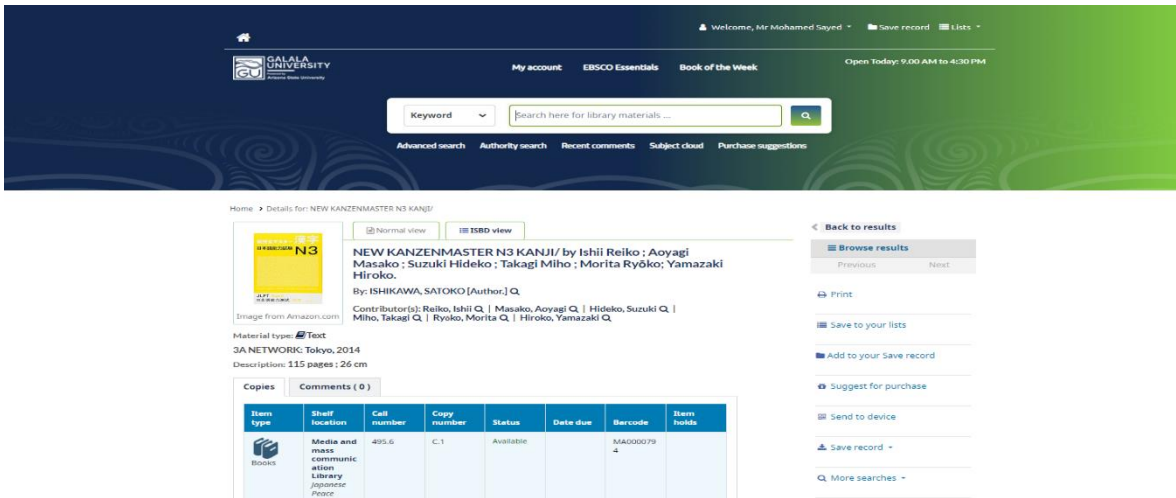
Methodology (case study for Galala university library)

In this section we will analyse which methods have been implemented in the Library of the University of Galala, starting from the information discussed above, and explaining the impact of these actions on the services provided and on the work of the university librarians.

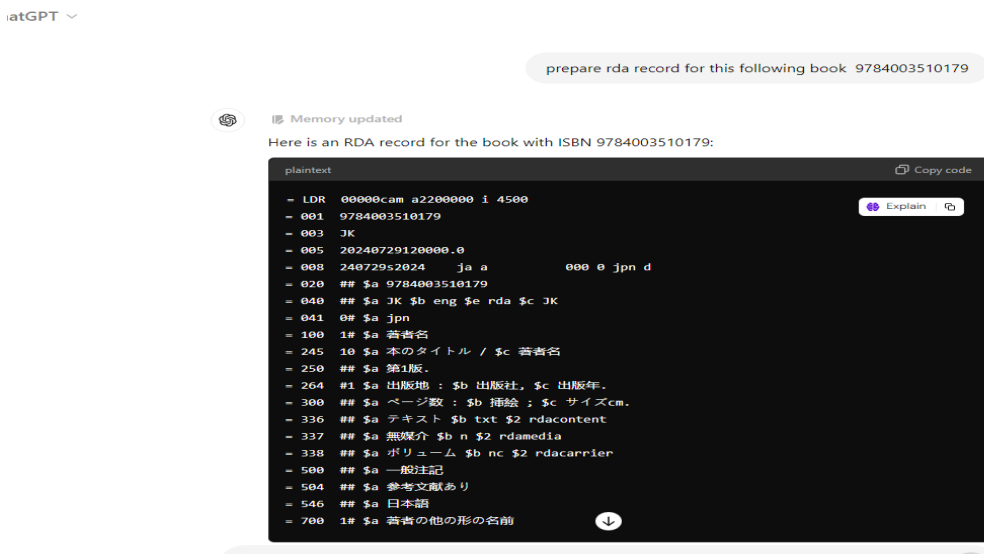
- **Using ChatGPT for cataloguing:**

Inside the library, there was a case in which a collection of books in Japanese had been received, and there was no easy translation in most libraries, and the

information for each book had to be identified separately in order to index and identify the classification number.



For example, if I used ChatGPT for cataloguing record you will asked him to prepare rda record for this title or isbn and he will help you like this pic



And to know the classification number like this pic

the book.



classification number for this book 9784003510179

To determine the classification number for a book, you typically use a classification system like the Dewey Decimal Classification (DDC) or the Library of Congress Classification (LCC). Since the exact subject matter of the book is not provided, I can give a general approach for finding a classification number:

1. **Determine the Subject:** Identify the main subject or focus of the book.
2. **Consult the Classification System:** Use the relevant classification system (DDC or LCC) to find the appropriate number.

If you can provide the title or subject of the book, I can help more accurately. In the meantime, here's a general guide:

Dewey Decimal Classification (DDC)

For example, if the book is about Japanese literature, it might fall under:

- 895.6: Japanese literature

Library of Congress Classification (LCC)

If the book is about Japanese history, it might fall under:

- DS881.3: Japanese history



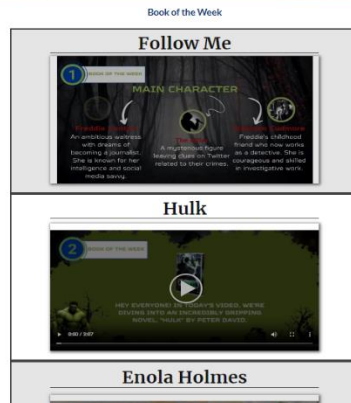
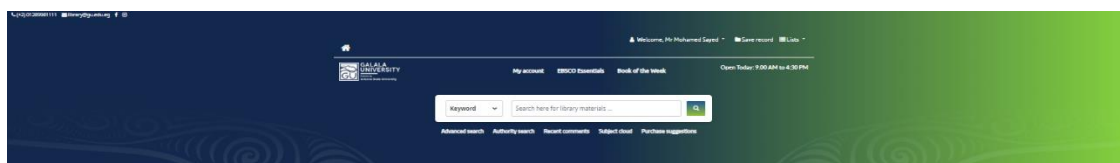
That help us to know the data of the book and we can translate it to complete the record with subject and all data.

- **Book of the week:**

Book of the Week! Every week, we'll spotlight a different book with a quick summary. These books are ready for you to borrow at the library. So, if you're searching for your next favourite read, stay tuned for Book of the Week!

In this new service we used the Canva to make the video of book:

<https://library.gu.edu.eg/pages.pl?p=week>



- **Digital literacy:**

-Training the staff for giving courses for student for how to use the

Ai tools

-Guidelines for use the ai tools for the academic staff:

https://docs.google.com/presentation/d/1nJp8yB1Be1GLUxzqthIZj5evULUXS_ja/edit?usp=sharing&oid=115563173852309955690&rtpof=true&sd=true

- **Library Virtual Tour:**

Galala university library is excited to welcome all our new students. Get to know the library before the semester starts to see how we can help you succeed!

<https://library.gu.edu.eg/vr/index.html>

In this new service we virtual our library with all collections e development process for a virtual reality (VR) tour of the GU Library, utilizing Unity for the VR environment and 3ds Max for 3D object modelling. This VR tour will allow users to explore the library remotely, navigate its layout, and discover its resources in an immersive and interactive way.

We using this technology:

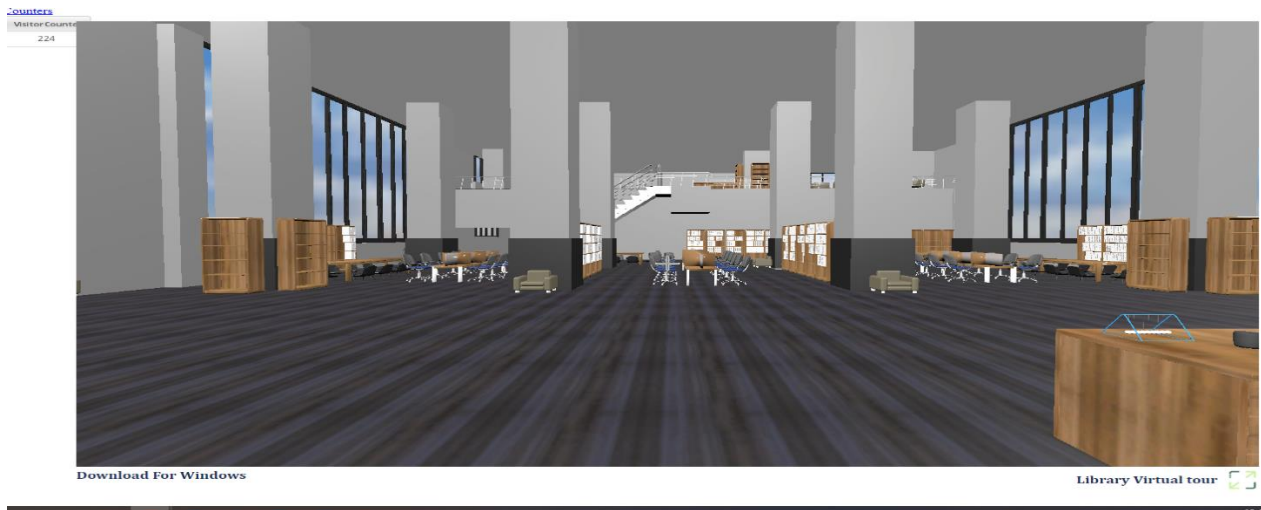
- Unity: A powerful game engine well-suited for VR development, offering tools for creating interactive
- 3D experiences. o 3ds Max: A professional 3D modeling and animation software for creating high-quality assets for the VR tour.

Library Virtual Tour



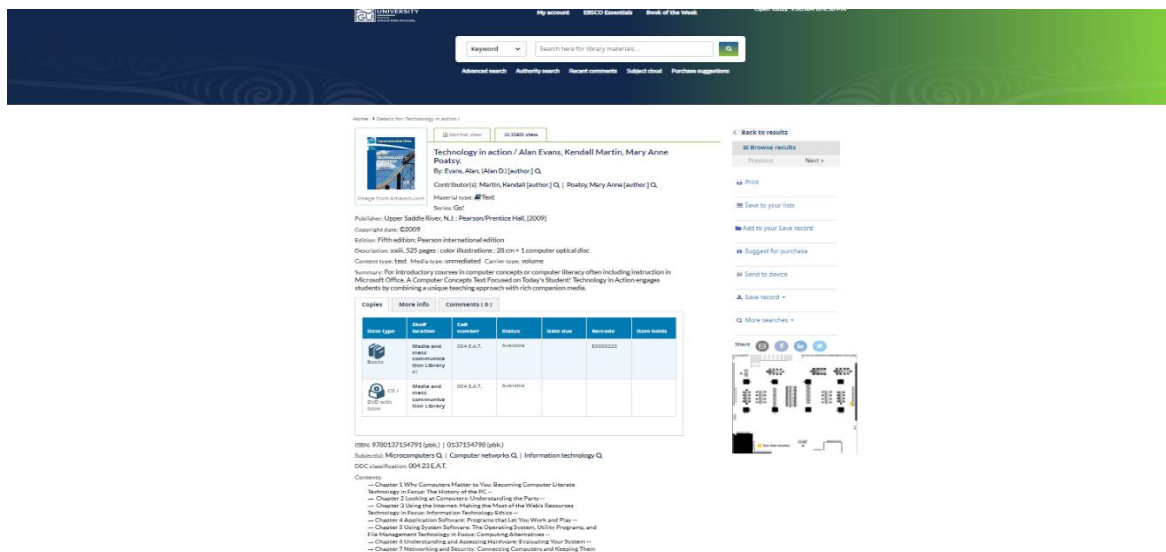
Galala university library is excited to welcome all our new students. Get to know the library before the semester starts to see how we can help you succeed!

Start the Tour



- **Place of item:**

in this service we put in the record image for the place of item in library we use AutoCAD for this service : https://library.gu.edu.eg/cgi-bin/koha/opac-detail.pl?biblionumber=291&query_desc=



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