



THE ROLE OF ARTIFICIAL INTELLIGENCE IN PROMOTING THE FIVE LAWS OF LIBRARY SCIENCE

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Abstract

The five principles of library science proposed by S.R. Ranganathan are gaining importance in the 21st century. When you see that the theoretical basis he established is still applied today, when libraries have become technologically advanced, you can understand how strong a foundation he laid for library science. These five principles of library science are being applied to modern libraries today, along with traditional libraries. Mainly, through artificial intelligence, researchers, authors, students, and teachers are able to get the information they need at home without visiting physical libraries. They are able to get location services and documentary services at home. These days, the librarian has become friendly. Artificial intelligence is reducing the consumption of books.

The five principles of library science were proposed by S.R. Ranganathan in 1931. These five principles of library science describe the management of a library. The five principles of library science serve as guidelines for today's traditional and modern libraries. They inspire the library profession, governments, and the education community. Many librarians around the world consider them to be the foundations of the philosophy of libraries. Dr. S.R. Ranganathan formulated the five principles of library science in 1924.

Books for use or books for all, Books for use or books for all

Every reader has his/her own book, Every book has its own reader

Save the reader's time The library is a growing and evolving organism

The five principles proposed by S.R. Ranganathan are already influencing artificial intelligence. These principles have laid strong foundations for library science. They are laying a strong foundation. Applications of artificial intelligence in libraries are changing the nature of libraries. In the 21st century, artificial intelligence will cause radical changes in many fields, and libraries are no exception to it. With the applications of artificial intelligence, the importance of traditional libraries will decrease. These five principles serve as guidelines for librarians, governments, policymakers, and readers. Due to the applications of artificial intelligence in libraries, the role of the bookkeeper is changing. Today, the librarian is only a facilitator. Today, libraries and librarians are becoming user-friendly due to artificial intelligence. We are witnessing a world of information without borders due to artificial intelligence. Library hours are irrelevant. Services are available 24/7. Artificial intelligence has made it easier for today's librarians to meet the information needs of readers.

Introduction

The Five Laws of Library Science were developed in 1931 by S.R. Ranganathan, an Indian librarian. Even today, librarians have tried to update and reinterpret these five laws from time to time to provide library services.

These five laws of library science are the "fundamental laws" of library science. They are the guidelines for solving any problems related to library services and library practice in library science. There is no doubt that these Five LAWS of Library Science have given a scientific approach to the subject. These five laws of library science proposed by S.R. Ranganathan make the services provided by artificial intelligence more readily available than traditional libraries. These principles form a strong theoretical basis for library science. These five laws of library science remain valid as libraries become more technologically advanced. The reason is that

library management is tied to the five principles. Even in the digital age, these five principles provide a strong theoretical foundation for library services.

Role of artificial Intelligence

Books for Use (First Principle)

Books for Use (First Principle) Historically, in the past, libraries were institutions that stored books. At that time, it only served the needs of the majority of readers in the society. Today's modern concept of library came into existence from the industrial era. The library is now considered an institution that fulfills social needs. Ranganathan does not reject the concept of libraries as the preservation and storage of books. This is because libraries play an important role in passing on our cultural heritage to future generations. Libraries act as information conduits. But today, the very nature of libraries is changing due to modern technology. With the advent of artificial intelligence, the need for physical libraries will decrease. The reason is that library services will meet the information needs of everyone on an artificial basis. Using precise prompts, AI-generated models explore the information needs of students, teachers, scientists, doctors and subject matter experts, policymakers, lawyers, librarians, and politicians, analyze the information collected from various information sources, and provide them with the information they need in the desired form.

Artificial intelligence that meets the information needs of all Unlike physical and traditional libraries, AI is not related to access issues such as location, building, library hours, book selection, and library staff use of books. With the help of AI, we can find solutions to our problems from any remote place. We can increase the use of books from any remote area. In a way, we can get information directly from our homes. In a way, AI improves the skills of librarians. It further emphasizes their need. The reason is that there is a complete understanding of information sources and universal knowledge. The reader can immediately provide the information he wants. Therefore, the first principle proposed by Ranganathan is that artificial intelligence meets the needs of humanity and society.

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2nd law

According to the second law of library science introduced by Dr. S. R. Ranganathan, it is the duty of the librarian to provide his book to every reader. This is famous as the 2nd Law of Library Science. But in traditional libraries, providing each reader with his book is associated with cost and effort.

If this principle is applied by Artificial Intelligence, each reader can get the information he wants. Through this artificial intelligence, the librarian can provide each reader with information that suits his needs. Similarly, the reader can get the information he wants in the desired form and in the desired manner. "Every reader can easily and at the right time get the information or data that suits his needs through AI."

Personalized Information:

AI can understand the needs of each reader and provide him with the data/information he wants.

Understanding the user's goal:

Know what kind of information the reader (or user) wants and use the right prompts accordingly.

Timely Response:

Artificial intelligence has become more popular by providing the necessary information in the shortest possible time by providing the information at the right time, in the right form.

When using artificial intelligence, this timeless principle of "every reader his own book" is fully applicable even in the data-driven era.

The third law of library science, formulated by S.R. Ranganathan, states: "Every reader has his book. Every book has its reader."

This law emphasizes that every person should have access to the books or information they need and that every book should find its right reader. In the context of AI applications in libraries or information science, this law can be adopted to suggest that AI should be used to match users with the most relevant content or knowledge. The game can provide the right skills by providing the right book to the users. To achieve this, the librarian should conduct a library orientation program for new users. Bibliographic instruction should be introduced to students.

If we want every person to have access to the books or information they need and every book should find its right reader, then we must be lifelong learners. Only then can we use artificial intelligence to find the information we need using appropriate prompts.

How AI applications apply this

Personalized content discovery: AI-powered, personalized content discovery in the form of prompts helps to suggest the right information or book for each user.

Smart Search: Identifying the needs of users through smart search tools and providing the right information instantly.

Question-answering systems: AI filters and provides the right answers to the questions asked by users. Artificial intelligence is available 24/7 to provide information according to their needs.

Self-discovery: Artificial intelligence not only understands the reading habits or thinking patterns of users but also provides new content, books or articles that they want.

This concept of "saving reading time" is a key element of the "4th Law of Library Science". According to this principle, books and other library resources should save users' time and provide them with the information they seek immediately. This has also become very important for digital information and services.

How can "saving reading time" be used in AI applications?

AI applications, especially technologies such as social systems, smart search tools, and response templates, work in a way that saves users' time. In traditional libraries, information provided through documentary and non-documentary resources takes a lot of time. But information provided by artificial intelligence analyzes and synthesizes information through inductive syntactic methods. Provides all the information we want in the shortest time

Important ways to save time through AI applications:

Personalized Recommendations: Through AI, users can suggest books, articles, or documents that are relevant to their needs based on their past searches. This helps users get the right information in less time. Saving time through AI applications can help users get accurate information in less time.

Smart Search: Powerful search engines through AI applications understand user queries and instantly show the right results.

Automated Response: AI-powered chatbots, commercial services, and notifications save time by providing instant answers to user questions.

Analytics & Trends: AI-based analytics tools can examine data on user interests and make suggestions for new information, books, or other resources.

Automated Document Review: AI optimizes and understands documents, and suggests important points to users, saving time.

AI saves time:

Good product: AI tools help users use their time more efficiently by providing systems that enable them to access information easily and quickly.

Continuous development: AI tools constantly improve themselves by keeping in mind the interests and needs of users. Accordingly, generator tools are developed accordingly.

In this way, the principle of "save time by studying" is implemented more effectively with AI-based solutions.

The principle of "Library should be constantly evolving" is the main point of the 5th Law of Library Science. According to this, a library or information center should be constantly evolving, as well as acquiring new knowledge, technology, and services. That is.

This includes new technologies, innovative services, observations, digitization, and development of equipment.

Implementation of the 5th in AI applications:

AI applications and technologies are playing a key role in the development of libraries in the 21st century. In order for libraries to function more efficiently, it is essential to embrace modern technologies such as artificial intelligence, big data, big analytics, smart tools, and machine learning.

Some of the ways for AI-based development:

Digitization:

Digitalization of books, archive documents, research papers or other resources through AI tools. This helps in quick access to information.

Personalized services:

AI-based systems can easily provide users with books that are relevant to their interests or needs.

Smart search engines:

Systems like Google and Bing can provide efficient and accurate search results with the help of AI, especially in the deep web, which is constantly changing information.

Information and service adoption:

AI-based chatbots, commercial services or customer support, can help users in real time to understand their needs and help them. Not only that, artificial intelligence can also help in providing community services.

Information augmentation:

Libraries provide various resources, new books, modern information sources, and incorporate their comprehensive information into AI-based systems. That is, they fully meet the needs of users.

Innovation/Technology:

AI-based technologies such as interactive digital documents, augmented reality or virtual reality provide information to users through a new model, meeting the needs of all groups and sectors. In a way, they are at the forefront of providing better and more efficient services than traditional libraries. .

5th Law and the Future of Libraries with AI:

Information delivery: As libraries constantly evolve, libraries will be able to reach visitors through AI-based social media.

Saving users' time: Libraries can instantly provide users with the latest, most valuable information through AI.

In this way, the principle of "libraries should constantly evolve" is implemented more effectively by adopting AI-based technologies.

Role of Librarian in the Age of Artificial Intelligence (AI):

Currently, the role of librarians in the 21st century is governed by the Five LAWS of Library Science guidelines proposed by S.R. Ranganath. By implementing these principles, libraries are constantly adopting modern technology. By implementing artificial intelligence applications in libraries, libraries can provide better services than traditional libraries in implementing the five principles of library science, meeting the needs of readers, saving time, providing each reader with his book, and providing each book with his reader. Artificial Intelligence Applications

By adopting modern technologies in libraries from time to time, both libraries and librarians should constantly improve their skills. Due to the impact of artificial intelligence applications in libraries, there will be major changes in the appearance of libraries. The following artificial intelligence applications will help us understand how the Five Laws of Library Science proposed by S.R. Ranganath will impact artificial intelligence.

In this era where the world is rapidly changing based on AI, the role of the librarian is also undergoing a major change. While in the past the main task of the librarian was to organize, collect, and easily provide many books to the users, now AI, digitization, and modern technologies are giving them new responsibilities.

1. Adopting a change in technology:

The new direction of the librarian is to adopt AI-based tools and technologies. This is to provide more efficient services to the users by adopting things like smart search engines, personalized recommendations, and chatbot services.

2. Information Digitization:

Through AI and Machine Learning, librarians help digitize all types of information, from books to data sources. Due to this digitization, many old books, research papers, and archive documents will be made available.

3. Instant access to information:

Based on AI, the role of a librarian is now to process information efficiently and provide it to users quickly. Through AI tools, smart search, and recommendations, librarians will be able to provide comprehensive information instantly according to the needs of users.

4. Personalization:

Personalizing search patterns for books and other information resources with AI. Librarians will analyze the interests of users and suggest information or books that are relevant to them.

5. Information security:

AI-based technologies will make the role of librarians more crucial in keeping information confidential and secure. AI systems will be used to prevent information loss, hacking, and cyber crises.

6. Data management:

Through AI and big data analytics, librarians will help in effectively categorizing information, eliminating redundant information, and providing users with the right information faster.

7. Increasing engagement with users:

With AI-powered tools, librarians can provide a more personalized experience to users. Whether it's providing them with information easily through chatbots or engaging with them through social media.

8. Responsibility to innovate:

With AI, librarians are responsible for choosing new innovative approaches. Using technologies like Augmented Reality (AR) or Virtual Reality (VR), they can provide new experiences to users through digital interactions.

9. Meeting challenges:

While AI, big data, and digitalization are powerful tools, the privacy laws, cybersecurity issues, and regulatory responsibilities associated with them pose new challenges for librarians. To effectively meet these challenges, they need to constantly learn new skills.

Conclusion

Library management has become modern in the 21st century. If we include the functions of library management in the five principles of library science, we can understand how strong the theoretical foundations laid by SR Ranganathan are. In today's modern libraries, these five principles of library science are the guidelines for library management and librarians. Today, libraries have become modern.

And they are called digital libraries, electronic libraries, virtual libraries and e-libraries. With the advent of artificial intelligence, the very form of libraries is changing. Today, we are seeing the emergence of E-Books, E Journals, E Theses, E Dissertations in digital form instead of traditional books. Moreover, we are able to get the information we want within minutes through search engines. But today the role of search engines has become limited. Due to today's modern technology, information literates need information literacy skills to extract the information we need from the flood of information. Only then can we get the information we need. But today, through Chat GPT Open AI, Deep Search and Google Bird, we can find the exact information we need in any form. Modern technology is available that can get information in minutes. That is artificial intelligence. Having continuous information literacy skills will help us become lifelong learners in the coming days by developing information literacy. Artificial intelligence can help us in that. With the help of artificial intelligence, we are at the forefront of extracting the information we need from infinite information. These five principles of library science will be helpful for librarians and all sections of society in meeting the information needs of the people by providing information available on the dark web.

Artificial intelligence will play a key role in the development of libraries in the present and future. Libraries will not only play a key role in the balanced and sustainable development of the country but will also take steps towards a knowledge society. In this way, we will be the inheritors of cultural heritage through libraries for future generations.

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