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**Artificial intelligence in library services**

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Libraries have always resisted change. Libraries are also viewed as an agent of change. The journey from clay tablet to e-tablet and from papyrus to paper has been made but it has not yet ended. Changing the paradigm from a traditional library setup to modern information network has enhanced the role of libraries as real services agents. These changes have stunned some scholars who wonder what else is going to be brought into consideration in order to impart quality and optimal information in minimal time.

Cutting-edge technologies have been utilised in many fields. Educational institutions worldwide accept these changes, from time to time. Libraries are hubs of research activities in academic buildings. The radical changes in the era of technology have boosted up library services; libraries are embracing these changes for many reasons.

Now we enter the age of the Industrial Revolution 4.0 and booming Artificial intelligence (AI). Artificial Intelligence is a comprehensive discipline developed by computer science, comprehensive science, cognitive science, neuroscience, psychology, linguistics, brain science and other disciplines. In AI is a computer programme that have some qualities that a human brain has, like the ability to understand language, recognise pictures and understand to solve a problem.

AI has, broadly, been divided into three types: symbolism, connectionism, and behaviourism. Symbolism is based on logical reasoning that stimulates human intelligent behaviour. The role of connectionism is based on a connecting mechanism with a learning algorithm between two neural networks. Behaviourism is cybernetic and perceptual-action control system. The most popular technical fields in AI research are broadly based on problem solving, natural language processing and deep learning.

AI has been deployed in numerous businesses worldwide. Some popular examples of AI are: manufacturing robots; virtual travel booking agent such as Uber and Careem; google smart maps; plagiarism check software such as Turnitin; social media apps like Facebook, twitter, Pinterest, snapchat, google translator etc.

Education systems will change in a broader sense if new technologies are brought under consideration in developing countries like Pakistan. Libraries are hubs of social education, learning and knowledge and will gain more momentum by deploying new technology for research works. Many libraries have enhanced their services to meet the desired needs of their researchers. Such drastic changes have improved their standards, but many librarians still contend that deployment of AI in the library field may replace the role of librarians.

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AI will enrich librarians’ knowledge exchange and interpersonal interactions. They ought to change their minds before rejecting this splendid technology. They should accept it with a positive attitude as it will contribute to the activation of library communication functions and services’ efficiency. This technology is not intended to replace librarians; it will enhance their communication skills with their patterns. Implementing this technology will not only bring power tools to the vast collection of their library but will discover, search and analyse their collection in no time.

As we embrace technological innovations in our lives, we should also grapple with its implications.

Most of the library expert systems and artificial intelligence applications that have been developed and are currently under development are essentially aids to facilitate the business of running libraries. New systems can be used for collection development, budgeting, personnel scheduling arrangement, and disaster planning and responses.

Modern libraries have incorporated many systems that help users in many fields, such as references and information retrieval.

There is some positive potentiality for launching AI in library services. Some worth mentioning ones are knowledge of users’ need and understanding of building collection. This could mean the creation of new jobs in the library field.

AI means faster searches and learning more about searchers’ behaviour, which will help them to improve their searching skills by identifying problems with metadata, reviewing how material was indexed and ensuring that it was discoverable.

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