Chapter 3
Artificial Intelligence, Cloud Librarianship, and Infopreneurship Initiatives for Inclusiveness

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ABSTRACT

Artificial intelligence (AI) is a broad and complex area of study, which can be difficult for non-specialists to understand. Yet, its ultimate promise is to create computer systems that manifest human intelligence. This chapter coins "Machinzation" for the application of literary machine (computer) to human operations. This clearly has major implications for library and information science profession. In principle and practice, AI has penetrated virtually all walks of human life. Many authors have previously provided in-depth overviews of AI technologies. Service is the vocal point of librarianship and particularly in the era where information is the fifth and most important factor of production. Cloud computing stems from the principle of AI while when applied into the operations and routines in libraries and information center gives a brand new concept "CloudLibrarianship." The new concept is dealt with in this work. Emergence of this concept opens up the entrepreneur opportunities in the information sector of the economy-inforpreneurship. This chapter therefore examines certain key aspects of AI that determine its potential utility as a tool for enhancing and supporting library operations.

BACKGROUND

The chapter reviews the possible areas in which AI is applicable in librarianship, with a glimpse into areas like expert systems, intelligent computer-assisted instruction, and natural language applications. Also, the infopreneural opportunities are also highlighted for eventual adoption. Some of the barriers that inhibit the infopreneursip are not left out. It also gives facility to induce new applications quickly without having to focus on identifying available server space or configuration and information technology-based library services can be delivered much more quickly than when using local-based hardware or software.

INTRODUCTION

Immemorially, attempts to improve on both service and product related components of information management have witnessed reengineering and refocusing. As an interdisciplinary field, researches in librarianship have advanced so rapidly that the need to adopt computing is no mean option. Cloud computing is an emerging technology characterized by an element of novelty where the research community has recently embarked. Digitisation, automation and computing take over the revolutionary dynamics hence cloud computing has emerged to be an indispensable option for library and information profession. Invariably, computing is the product of artificial intelligence. Human intelligent components are naturally but sophisticatedly knitted. This is visible in their ability to acquire, sort and apply knowledge and skills in decision-making process. Successive revolutions in either the form of ideology or research have attempted to probe into possibility of '*machinizing*' human mental capacity. The '*machinization*' process gave bath to the development of computer which has transformed in size, processing capacity, and speed among others. Industrial revolution attempted to create machines that could replace man's physical power.

Industrialization has transformed the society totally and brought immediate crises in later development. In fact there are machines that can outperform human beings. Over the century man's working ability and thinking process have seen a sea of changes owing to the complimentary role of computing and '*machinization*' protocols. The changes have left no aspect of human endeavour out. The wave of changes is so strong that the human race and generations cannot recover from them hence unparalleled reference will be made to events that surrounded revolutions. Librarianship has had its own fair share of the unending impact of the revolution, particularly in the aspect of technology. A step further from elementary computing towards cloud computing is another giant stride that the service—focussed profession like Librarianship has greatly benefitted from. The society is becoming increasingly centered on information handling, processing, storage and dissemination, using microelectronic based technologies, today's computers can stimulate many human capabilities such as reading, grasping, calculating, speaking, remembering, comparing numbers, drawing, making judgments, and even interactive learning.

Researchers are working to expand these capabilities and, therefore the power of computers by developing hardware and software that can initiate intelligent human behaviour. The circle of information management is grossly incomplete until it attains the actionable form as illustrated in pyramid by Liebowitz (2003) and Aina (2013). It therefore implies that notwithstanding the level of advancement in 'information', such is still a raw material, always requiring further processing for decision-making. Furtherance to the reuse and subsequently, the processing of information particularly for economic gain gave rise to information-entrepreneurship, which has transformed into *infopreneurship*. This is the

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