

## Chapter 2

# Emerging Technologies, Information Provision, and Libraries

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### ABSTRACT

*The advent of computers and information communication technologies (ICTs) has drastically changed the acquisition, storage, and retrieval of information. Further, information can be accessed through various media as new technologies continue to spring up. Since information can be accessed anywhere as long as one has internet connectivity, this has resulted in many users not using the libraries and other information centers. The decline in the use of libraries is worrying, hence the need to understand how the emerging technologies have changed information provision in the libraries. The chapter addresses challenges that affect the provision of the needed services in the libraries. Finally, alternative services that libraries are adopting in order for them to remain relevant in this information age are outlined. This chapter provides insights on how libraries can continue to play their role as information providers and how they can fit into the present information age.*

### INTRODUCTION

Early libraries were only associated with the handwritten and later printed copy of documents and major functions of the library were to collect, organize, store and make available these documents when they were needed. However, with the

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development of technology, the representation of information has changed from printed books to electronic storage which has drastically changed how information is created, acquired, stored, disseminated and retrieved. Media such as found in online platforms, wireless networks, computers, and smartphones can now be used to access information at any time resulting in many people not using libraries and other information centers solely for their information needs (Barclay, 2016). The decline in the use of libraries has an effect on library operations, hence this chapter examines emerging technologies, how they affect information provision and how libraries can effectively harness the benefits of these technologies to provide 21<sup>st</sup> century services. Thus, the chapter examines how libraries are moving beyond traditional services to leverage on technology for information provision in order to remain relevant in this information age. The chapter also provides insights on how libraries can continue to play their role as information providers, fit into the present information age and plan for future information provision strategies.

## **BACKGROUND**

The world has gone through three main developmental stages. The first was the agrarian age. Agriculture was the cornerstone of the economy of different countries and communities as much emphasis was placed on producing and maintaining crops and farmlands for the creation of wealth. Implements that helped in making farming faster and more efficient were produced in the 18<sup>th</sup> and 19<sup>th</sup> centuries and these led to an Agricultural Revolution as there was great improvement in farming and increased crop productivity. Land owners wielded enormous power during this period.

According to Encyclopedia Britannica (2019), the second phase was the Industrial Revolution when machines were developed and used to produce goods in bulk in the early 18<sup>th</sup> century and processes that were hitherto performed manually were taken over by machines. Nations and private individuals invested heavily in machines of mass production of goods in order to boost their economy. The Industrial Revolution was a process of change from agrarian and handicraft economy to one dominated by industry and machine manufacturing as people moved from tilling the land to work in industries. Manufacturers were power brokers of the era.

The third stage is the information economy where the dominance of industrial sector of workforce seemingly ended in the 1940s with the rise of service industries. This was followed by a rapid growth in Information Communication Technologies which saw the computers moving from being locked away mainframe to personal desktop and handheld machines/devices available to all and most importantly communicating among themselves. This made information available to all who can access digital devices and the Internet. According to Rouse and Tucci (2014),

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