Chapter 5
Uberization of Healthcare

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ABSTRACT

Over the years, health literacy has embodied various forms to aid healthcare decisions. For technology and health literacy to merge, the author examines and discusses how the following three elements can be applied to implement a type of technology and to what audience: 1) time, 2) cost, and 3) engagement. Through focused time, cost, and engagement efforts, healthcare can be optimized without reductions to the quality of information. Due to its rapid spread, information could to be fixed accordingly. This would positively impact the decision-making process for communities and public and private sectors. Benefits outweigh risks related to the implementation of technology and health literacy. Traditional medicine is known to have difficulties adapting to change. However, the risk is too high not to explore the use of technology and health literacy.

INTRODUCTION

Various forms of health literacy (i.e., graphic novels, comic books, brochures, and billboards) have aided in decisions related to healthcare, including health prevention (i.e., early pregnancy care, childhood immunization) and chronic illness (i.e., cancer and human immunodeficiency virus [HIV]). In the mid-1990s, healthcare researchers at the University of Southern California (USC) in Los Angeles studied health literacy. Inspired by the research, this chapter aims to creatively and unconventionally educate the public on disorders and diseases in the United States. Graphic novels and comic books served as tools to engage the target audience: monolingual, Spanish-speaking, low literate adults in Los Angeles, California. This population was being missed because of language, cultural, and educational barriers.

Evidenced-based evaluations at USC and an international collaboration with the University of Groningen, The Netherlands took place in 2017. The same concept produced positive significant results with outcomes suggesting that "a fotonovela may be a valuable health education format for adults with varying levels of literacy, even if it was developed for a target group with a different cultural background" (van Jagt et al., 2017, p. 284). This resulted in a Dutch audience that became engaged with the presentation and storytelling concept.

This chapter will examine the ability to merge technology and health literacy. The author will examine and discuss how the following elements can be applied to specific technology and audiences through: (1) time; (2) cost; and (3) engagement.

DEFINITION

According to the Collins English Dictionary, the technology and business concept definition of uberization is "to subject (an industry) to a business model in which services are offered on demand through direct contract between a customer and a supplier, usually via mobile technology" (https://www.collinsdictionary.com/us/dictionary/english/uberize). In this example, uberization conveys how the healthcare industry can benefit from a successful business model and innovative technology.

PROBLEM

Research in healthcare and technology has indicated a lack of innovation due to organizations' poor cooperation in building user applications. "Both public and private sector stakeholders, particularly government agencies and private corporations, will need to collaboratively reduce the gap between the health information 'haves' and 'have-nots'" (Eng et al., 1998, p. 1371). By fast forwarding to 2017, the aforementioned remains problematic.

Self-advocacy has become important as patients take healthcare into their own hands. Examples include social media groups for direct patient collaboration or applications developed by the private sector to manage health. Research has also noted that technology would be tailored by "developing applications for the growing diversity of users, funding research on access-related issues" (Eng et al., 1998, p. 1371). This mirrors how healthcare is being tailored through precision medicine and the human genome. Research is advancing at lightning speed.

However, it is important to address the lack of disseminated information. A study in the utilization of internet technology suggests that "significant advances in technology access and use could be sparked by developing technology interfaces that are accessible to individuals with limited literacy skills" (Jensen, King, Davis, & Guntziller, 2010, p. 804).

SOLUTION

It is widely recognized that technology and innovation regularly benefit society. These efforts improve speed and costs without compromising quality. Like most inventions, audiences and populations were left out during initial development (for example, radio and television platforms were readily accessible to higher socioeconomic groups).

Technology is already economically feasible and available. Yet, there are forgotten groups, including low literate audiences and certain cultures. To achieve potential solutions in electronic health (or e-health), we must "address disparities, several authorities have suggested the need for greater information technology research and investments" (Gibbons, 2005, para. 1). As organizations and individuals

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