ABSTRACT

The digital divide refers to the differences between people who use technology on a regular basis (technology-enabled) and those who do not use technology regularly (technology-disabled). Van Dijk describes three mechanisms that affect the use of technological resources. These are social exclusion, exploitation, and control. In addition to these three mechanisms, the technology itself may exclude potential users through the application design process. The design method used most frequently relies on convenience sampling of current users. The choices that these technology familiar users make in testing lead development teams to interaction design decisions that may exclude novice users. Several theories of technology adoption are reviewed as well as past and potential ways to address the digital divide.

INTRODUCTION

This chapter reviews the literature on the concept of the digital divide from several different viewpoints. Then, the chapter discusses how the digital divide has been affected by industry usability practices when creating technology and applications. The second set of viewpoints are gleaned from leaders in user experience and the experience of the author educating students to enter practice. The chapter synthesizes past approaches to narrow the digital divide from a practical and usability perspective.
After reading this chapter, the reader will have a better understanding of the concept of a digital divide, how it is influenced by the application development process, its past and future.

BACKGROUND

The digital divide is a broad term which refers to the differences between people who use technology on a regular basis (Technology Enabled or TE) and those who do not use technology regularly (Technology Disabled or TD). These differences can be in many areas, such as information gained, knowledge, skills, abilities, and opportunities. Technology access refers to having access to a mobile phone that will access the internet through a data plan and/or access to a computer which will access the internet with a browser application. Technology in the digital divide sense refers to the use or non-use of the internet as an information and communications technology. At this point in time, using the internet and technology demands a certain level of proficiency. This proficiency must be learned through using the device(s) over time. Initial use of the device(s) must support a person’s current knowledge base and expectations. Therefore, people who use a mobile phone with a data plan for the first time, or connect to the internet for the first time, should encounter a device that minimizes frustrations, is simple for them to use, maximizes their motivation to use and meets with their expectations. We refer to this as having high usability.

Usability refers to the intangible property of an application or device. This property is thought to help or hinder a person’s ability to use and learn the application or device. The property of usability is inherent to the application or device through the design choices that the development team makes on behalf of the users. The choices in functionality, features, physical design, and interaction design enables the user to interact with the functional side of the application.

THE DIGITAL DIVIDE

In the previous fifteen years, scholars, educators, social justice advocates, and government officials have become increasingly concerned about the Digital Divide. Van Dijk refines it in terms of their concerns:

*The metaphor digital divide suggests a simple divide between two clearly divided groups with a yawning gap between them. Secondly, it suggests that the gap is difficult to bridge. A third misunderstanding might be the impression that the divide is about absolute inequalities, that is between those included and those excluded. A*
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