Chapter 3

Research Methods, Data, and Analytics: Examining Service Design and User Experience in TV- and Newspaper-Oriented Digital News Interfaces

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ABSTRACT

Media organizations deliver news services online employing various design techniques and technologies to make services useful, usable, and effective for news consumers. How people use news services, their perceptions of them, and how their design impacts the user experience (UX) is an important area of study. In this chapter, the authors examine service design, UX, and related research methodologies and their importance for online news. Additionally, they report on a study that examined how the type of news provider (TV versus newspaper) and associated services affected user behavior and perception of the user experience. Participants perceived news websites differently based on the type of news provider and their interactions with services differed based on type of provider. The findings have implication for the UX research, specifically UX related to online news.

DOI: 10.4018/978-1-4666-8580-2.ch003
INTRODUCTION

As more people access news online, they interact with digital interfaces. Although a somewhat imprecise term (see Murray, 2012), an interface is the visible control mechanism operated by the user that sits between the system and the human or interactor (Murray, 2012, p.10). It is a medium through which a human interacts with a system or machine where reciprocal action and effect are shared between user and system in a specific context of use (Hartson & Pyla, 2012). It is designed to support the user’s tasks so he can accomplish a goal. From motor vehicles, home appliances, the web, to mobile applications, interfaces are ubiquitous. For people who seek news online, the interface is their means of experiencing and learning about local, national and international events. It is the medium through which they engage with others about news and participate in news making. It is becoming the primary way many people become informed about the world. To them, the interaction experience supported, or in some cases afforded, by the interface comprises the system (and organization) that provides news services. Regardless of sophisticated “back-end” technologies or the breadth of possible services, the point of interaction at the interface is often the determinant for how users perceive and build trust in the system and ultimately the organization that sponsors it.

Information architecture, screen layout, functionality, system feedback, system affordances or the perceived or actual properties of an interface object that determine (intuitively tell the user) how the thing can be used (Norman, 2002; Heim, 2009) influence the interaction experience and, to a great degree, determine the extent to which it is positive or frustrating for users. All too often news interfaces and corresponding interactions are inconsistent. They change unexpectedly or they are visually or functionally complex. At the very least, such factors cause users to think about the interface, distracting them from the task they aim to accomplish. More significantly, they impede users’ ability to get news, participate in news related experiences, or engage with the news services. It should be noted that for convenience the term online is used to convey networked devices that may include desktop, laptop, smartphone, tablets and other devices through which people get news over a network.

Creating interfaces that engender positive interaction experiences is a challenging endeavor. Much research in engineering, computer science, and the humanities is devoted to studying human–computer interaction (Thuring & Mahlke, 2007). Understanding the complexity of interactions occurring within today’s interactive systems is an arduous scientific endeavor but one of much practical value (Chi, Pirolli, Chen, & Pitkow, 2001). By understanding user behaviors, developers can redesign interfaces to improve usability, more effectively accommodate user needs and tasks, help users achieve their goals more efficiently, and improve designs and services overall (Heer & Chi, 2002, p. 243; Chi, Pirolli, Chen, & Pitkow, 2001).

The potential for creating innovative and engaging interaction experiences relevant to news and information services is exciting but there are many challenges. Designing interfaces for desktop displays is no longer adequate. Computers have become far too ubiquitous. They are in appliances, offices, vehicles and even being worn by people. One of the fastest growing areas of ubiquitous person computing is mobile communications (Hartson & Pyla, 2012, p. 3). Estimated to reach 10 billion in 2020, mobile connected devices are changing many facets of society, from education to entertainment (Chen, Chiang & Storey, 2012). A survey of news use in the United States found that people actively follow news using multiple devices, with a