Chapter 4
Usability Evaluation of Social Media Web Sites and Applications via Eye-Tracking Method

Duygu Mutlu-Bayraktar
Istanbul University, Turkey

ABSTRACT

This chapter describes usability studies of website-based and mobile application-based social media sites. In the study including 10 university students, the completion time of assigned tasks were measured along with click numbers and completion situations. These measures were analyzed. Data obtained from eye tracking movements was analyzed, and the results were evaluated. According to the results, the users can complete most of the tasks, but completion time varied. The participants had difficulties completing settings menu tasks except menus previously used in social media. When eye tracking results were examined, it was revealed that they mostly focused on the left side of websites and mobile applications. The participants stated that mobile applications were more useful than websites. According to eye-tracking data obtained in the study and the users' opinions, mobile social media applications were more functional than their websites.

1. INTRODUCTION

Communication, stating an opinion, looking for a job, and sharing via social media have been among the most common uses of the Internet. There are globally about 1.96 billion social network users in the year of 2015, and it is suggested that the number of the social network audience will be total 2.44 billion as of 2018 (Statista, 2015). Social media is used to share and discuss experiences and knowledge of Internet tools and other people in electronic media (Bryer and Zavattaro, 2011; Gursakal, 2009; Ito, et al., 2008; Boyd, 2007).

DOI: 10.4018/978-1-5225-0648-5.ch004

Social media provides us ways to communicate with other individuals over the Internet, and those people can be our target market, customers, colleagues, or anyone corresponding with us through conversations (Stratten, 2012).

The Internet statistics of Turkey laid out in the report "We Are Social" are as follows: There are 37.7 million active internet users in Turkey. According to this, it seems that active Internet user penetration is 49% in Turkey, which has 76.7 million citizens. In Turkey, in which there are 40 million active social media accounts, the penetration rate of social media accounts is 52%.

In terms of mobile application usage, there are 32 million active social media accounts. According to this, it seems that 80% of 40 million active social media accounts are accessed from mobile.

When the statistics of Internet and social media users were compared with the report of 2014, it was revealed that the numbers of active Internet users, active social media users and mobile users in Turkey increased 5%, 11%, and 2%, respectively.

During the day, the Internet users in Turkey spend about their four hours 37 minutes on the Internet, two hours 51 minutes in mobile internet, and two hours 56 minutes in social media. The time users spending to watch television was determined as average two hours 17 minutes per day. When the most widely used social networks in Turkey were examined, Facebook, WhatsApp, and Facebook Messenger were in the first three places, and they were followed by Twitter, Google+ and Skype (Kemp, 2014).

Social media are different from traditional media channels in terms of putting users at the center of the content production process and providing the opportunity to share that content. Traditional media production mostly requires specialized skills and training. This is not the case for most of social media; in some cases, required skills are completely different in some cases. Namely, everyone can provide self-produced contributions to social media.

The use of social media became such a habit of virtual environment users and the communication environment that broad masses from all cultures and every walk of life have shown interest, and this massness has added a new dimension to the concept of socialization.

As smartphone use increases along with faster connectivity speeds (Mobile Marketer, 2009). The Mobile Web will be used more than the desktop-based Web in future days (MobileBeyond, 2010). The accessibility and practicality of social media increased with the uses of mobile devices and mobile apps to access social media platforms and tools (Cooke & Buckley, 2008). Moreover, it has been statistically revealed that individuals started to spend more online time (Facebook, 2011). One of the important aspects of the fast growth of the mobile Web is the use of increasing numbers of smartphone Web browsers for access to social media, mainly social networking sites (Gonsalves, 2010; MobileBeyond, 2010).

Individuals should feel safe during surfing social media, and they should be able to find solutions in the interface of the website as soon as possible during any adverse situation. The authors report that Facebook is mostly used to have fun and to share information about activities occurring in one's social network, and instant messaging (IM-ing) serves to meet the need to maintain and develop relations (Quan-Haase & Young, 2010; Pentina, et al., 2013; Lee & Moonhee, 2011).

When people interact with social media platforms, the issue of usability comes to the fore. Human-computer interaction (HCI) focuses on usable design and development of technologies used in different environments. Usability can be assessed in terms of effectiveness, productivity, and satisfaction. Usability can be measured with the data obtained from the use of system by target users. In this method called the usability test, required data is gathered following each step during test application, and the data is then evaluated.