Web Usability for Not-for-Profit Organisations

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INTRODUCTION

One of the common aspects of software design is to focus on building systems that are easier for people to learn and use, so as to improve their performance at work. The term "usability" has become so popular that it has been applied to many aspects of life (e.g., the usability of customer services or organisational usability (Kling & Elliott, 1994).

This paradigmatic design approach appears to be increasingly important as complex technology allows us to connect more and more devices with people, so the essential aspects of usability—*ease of learning, ease of use, useful,* and *pleasant to use*—have been widely used as a basis for design. Indeed, the four usability dimensions proposed by Gould and Lewis (1985) have been applied to many design practices, and Web portal design is similarly an application area where usability is important. Hence, portal developers for commercial organisations should be aware of usability issues in order to obtain and retain visitors to their Web site. It is very obvious that a well-designed Web site helps to generate revenue for commercial organisations via online sales or advertising.

Although much progress has been made in developing usable Web portals for corporate Web sites, less attention has been paid to the design of non-corporate Web sites such as governmental or not-for-profit Web portals. Contemplating the contextual difference between these organisations, we reviewed the extensive media coverage of the Tsunami Disaster in 2005. In fact, the Web portals of many charity organisations had an important role in the extensive charitable donations made online. Clearly, more not-for-profit organisations have been attracted to this relatively effective and cheap method of interacting with their supporters. So a simple but meaningful question is raised as to whether Web users of portals for profit organisations interact in the same way as they do with portals of not-for-profit organisations. If not, what differences are there between usability for not-for-profit and for commercial organisations? This article briefly reviews this issue and examines a possible account of usability for the not-for-profit organisation that Web portal practitioners should take into account.

BACKGROUND

Most usability characteristics of Web portal design have been significantly derived from the usability dimensions of software systems, given that an understanding of software systems use would be very similar to that of online systems use. In one of the early studies of Web portal design, Mehlenbacher (1993) concluded that Web portals should be *accessible*, *maintainable, visually consistent, comprehensive, accurate,* and *oriented around the tasks that users intend to perform*. Following on from this, many researchers (e.g., Blackmon, Polson, Kitajima, & Lewis, 2002; Chignell & Keevil, 1996; Nielsen, 2000; Omanson, Cline, Kilpatrick, & Dunkerton, 1998; Spool, Scanlon, Schroeder, Sunyder, & DeAngelo, 1998) identified the usability dimensions for Web portals, ensuring that it is easy to understand and use the information displayed on a Web site.

These quality characteristics of Web portals were originally derived from initial studies of software usability such as Gould et al.'s study (1985) that considered four crucial aspects of usability (i.e., *ease of- use, useful, pleasant to use,* and *ease of learning*). Since then, much work in human-computer interaction (HCI) has revealed a pragmatic set of properties for the various usability goals to be measured in Web usability terms (e.g., Nielsen, 1993, 2000; Spool et al., 1998). This understanding has been established by studying users' cognitive, behavioural, anthropological attitudinal characteristics and the nature of the work expected to be accomplished. These studies were centred around an individual's effective acclimation to a particular Web site, while there is less consideration on how the Web site can be effectively communicated with the potential users under the context of an organisation. Experience with a not-for-profit organisation suggests that the users of the Web site for the not-for-profit organisation differed from those who are generally assumed in a commercial Web portal. Forman (2005) also stated from his personal experience that in general most of the users of the not-for-profit portals would be very keen, self-empowered, and sufficiently motivated to access the resources online. Even though it is very difficult to locate the behavioural sources of these personal claims, it would make sense that the different attitudinal characteristics of users toward the not-for-profit organisations contribute to the different acceptance behaviour for each Web portal. Such user difference is already considered in the user-centred design process; however, we doubt that much of a user's satisfaction with a particular Web site is influenced only by the typical usability dimensions (e.g., ease-of-use, useful, pleasant-to-use, and easy-to-learning) on its contents. It not only includes, but should go beyond, the focus on the Web

Figure 1. The TAM model (Excerpted from Davis, 1986)

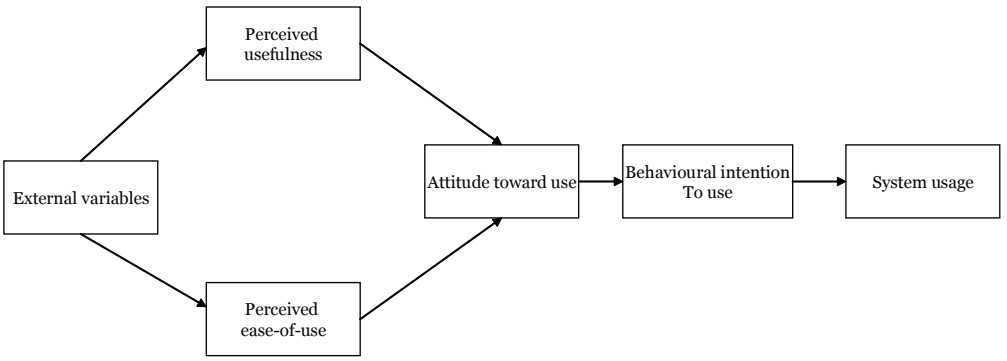
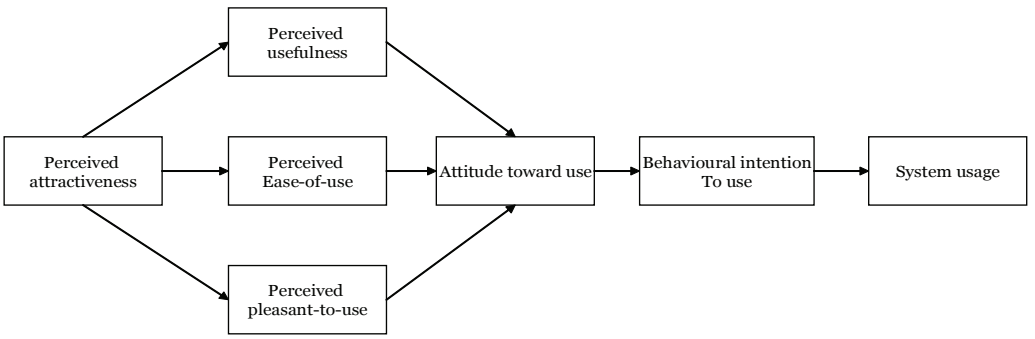


Figure 2. A revised TAM model (Excerpted from Heijden, 2003)



usability dimensions as currently understood in the HCI community.

In fact, many HCI studies aimed to explore people's attitudinal characteristics. For instance, Fogg et al. (2000, 2001, 2003a) identified that Web portals for not-for-profit organisations such as governmental portals or well-known charitable organisations, made the user think positively about the sites and change their behaviours based on trust, which in turn improved their satisfaction with the Web sites. These findings imply the user's attitude toward a particular Web site might be influenced by the knowledge of the context of the organisation that runs the Web portal.

One of the theorising activities of understanding the different attitudinal characteristics toward a particular technology use is *technology acceptance model* (TAM) (Davis, 1986, 1989). It proposed that the two usability dimensions from Gould et al.'s usability dimensions (i.e., ease-of-use and usefulness) be closely related to the user's attitude toward the application, as shown in Figure 1. That is, based on certain beliefs (perceived usefulness and ease-of-use), a person forms an attitude about a certain object on the basis of which he or she forms an intention to behave with respect to that object. Recently, Heijden (2003) applied TAM to a commercial Web portal revealing that physical attractiveness as part of the pleasant-to-use dimension, could be one of the external variables.

In contrast, Fogg et al.(2000, 2001, 2003a) suggested that Web credibility would be the most critical external variable to change user attitudes and behaviours. Interestingly, most researchers (Adams, Nelson, & Todd, 1992; Bagozzi, Davis, & Warshaw, 1992; Chau, 1996; Haynes & Thies, 1991; Hendrickson & Collins, 1996; Igbaria, Parasuraman, & Baroudi, 1996; Mathieson, 1991; Taylor & Todd, 1995) have maintained that the two usability dimensions (i.e., ease-of-use and usefulness) influence the user's attitudes in a one-directional way, while Fogg et al. (2000, 2001, 2003a) saw the possibility of effects in the opposite direction from the two usability dimensions to Web site credibility, as shown in Figure 3. Considering this line of research activities, we noted that the early HCI studies on usability mostly focused on the behavioural data based on the intention (or goal) given of how people actually behave with the portal given measuring performance and assessing goodness-of-fit to tasks considered. Yet, as TAM denotes, the intrinsic difference may come from the higher level of chains such as user's beliefs or attitudes toward use of a particular Web site.