
Chapter XVII

Usability Evaluation of Online Learning Programs: A Sociological Standpoint

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ABSTRACT

“Usability” addresses the relationship between tools and their users. Such a relationship is generally considered as independent of any contextual, social or cultural aspects: Usability criteria relate to “human factors” taken as universal. But users do not live or act in an abstract world in which they are alone with the tool they are using. Users, as human beings, live and act in a world which is at the same time social and material. This paper provides some clues on how teacher’s or trainer’s epistemological stance, learner’s motivation, organisational learning culture and environmental factors interact to produce conditions determining the use of online learning programs. As a consequence, usability has to take into account the user’s social and material environment. This is why, according to the author, usability has to be “situated.”

INTRODUCTION

In its broad sense, “usability” addresses the relationship between tools and their users. Usability depends on a number of factors measuring how well the functionality of the tool fits user needs. For software, this may include how well the flow through

the application fits user tasks, how well the response of the application fits user expectations, etc. Generally, this relationship between a human being and an artifact or an object is considered as independent of any contextual, social or cultural aspects: Usability criteria relate to “human factors” considered as universal.

From a designer’s viewpoint, usability is seen as a relationship between a human being and an artifact which measures the productivity of a user using the artifact (Nielsen, 1994). This global approach may appear confusing, since it does not distinguish between two usability-related concepts, “ease of use” and “usefulness.” Therefore, I prefer to use the extended notion of usability proposed by Notess (2001), following Norman and the “user-centred design” school of the University of California, which distinguishes clearly between these two usability-related concepts but takes them both into account into its notion of “usability.” This also responds to the questions crossing “utility” and “usability” raised by authors like Grudin (1992) or more recently Tricot and Tricot (2000) and Tricot and Lafontaine (2002).

I will make the case for a strong dependence of “usability” on social and cultural aspects, because the use of any object is a social activity, implicitly implying social relations belonging to different registers (Blandin, 2002). I will demonstrate that there are no universal “human factors” on which to build usability criteria and that, for this reason, we have to take into account contingency factors, for which we need appropriate conceptualisation.

The discussion in this chapter will focus on usability of online learning programs, but I do think that the thesis in this chapter applies more generally and there is a general issue at stake here: Usability evaluation should not be limited to consider “simply ease of use of a tool” criteria, but should also take into account all the conditions which lead a user to actually use a tool. Technology museums are full of products that people found easy to use, but which have never been used (Jennings, 2001), and many current e-learning programs seem to be good examples of such products, if we follow Quinn (2001)!

This chapter is rather theoretical and therefore targets first those who are not only looking for practical guidelines to develop usable online learning programs, but are also looking for thought-provoking discussions of the notion of usability. I will present and discuss both the narrow and extended notion of “usability” used in software design and engineering, in order to show that “usefulness” is a social issue and that evaluation of usability has to take this fact into account. I will then propose enhanced usability heuristics, illustrated by case studies. Then, I will put forward some hypothesis on social factors which impact usability of online learning programs. And finally, I will propose to develop a sociological standpoint on usability and on “user experience,” as named by Norman (1988). At the end of this chapter, the reader will understand:

- why usability should take into account social and cultural factors,
- which factors impact on usability of e-learning, besides the interface-design-related factors which are the more commonly cited,

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