Chapter 12
User Perceptions of Information Quality in E–Learning Systems:
A Gender and Cultural Perspective

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ABSTRACT

With the prevalent use of e-learning systems as an information exchange means, the need for quality published materials within these systems has become vital. In previous work by the authors, an information quality framework for e-learning systems was developed. The proposed framework consisted of 14 quality attributes grouped in three quality factors: intrinsic, contextual representation and accessibility. Within the proposed quality framework, the authors assigned a relative importance weight for each attribute within the main quality factors, and a relative importance weight for each factor in the overall quality score. The idea of using relative importance as a parameter for the measurement is important, since it provides the framework with the flexibility to be adopted and used in different e-learning environments and with different users. The importance weights could be updated if a quality attribute or factor appeared to have the same significant value for the quality assessment no longer. This study examines whether any significant gender and cultural related differences exist in user perceptions of the relative importance of the main quality factors within the proposed framework. Reported results are based on the collection of original questionnaire data and t-test analysis supporting the conclusions.

INTRODUCTION

Today, e-learning represents an unprecedented opportunity to provide and exchange immense quantities of information for learners at different levels of education. However, the growing number of available e-learning systems, commercialization of these systems, and sometimes, the absence of editorial controls on such systems bring about the necessity for quality evaluation of online published learning materials. It also raises the need to define clear and specified quality criteria for available information, and to develop a reliable quality measurement method (Bozula and Morgun, 2008).

Another issue that should be taken into account when talking about the quality in e-learning, is the fact that the use of the Internet as a distribution channel for e-learning may be affected by the global nature of the Internet, therefore, we should not forget that learners work in national contexts, and have differences in other aspects, such as gender and cultural identity. Moreover, the widespread use of the Internet and technology all over the world has raised key questions about the relationship between cultures and technologies (Holmes, 1998). In this context, there are a large number of cross-cultural studies of people's use and perceptions of technology (Holmes, 1998; Allwood and Wang, 1990; Brosnan and Lee, 1998; Makrakis, 1992; Whitley Jr. Bernard, 1997; Omar, 1992; Al-Harby, Qahwaji and Kamala, 2009). The summarizing of this great body of research is out of the scope of this paper, but findings seem to suggest that, in different cultures people might have different perceptions and uses of the technology and the Internet.

In a previous work (Alkhattabi, Neagu and Cullen, in press), we proposed a framework to measure the quality of the information provided by e-learning systems based on original questionnaire data and factor analysis. The proposed framework could be used to reach a comprehensive indication of information quality in the context of e-learning for system designers, providers and users. The framework consisted of 14 quality attributes grouped in three quality factors: intrinsic, contextual representation and accessibility. Within the proposed quality framework we assigned a relative importance weight for each attribute within the main quality factors, and a relative importance weight for each factor in the overall quality score, see Figure 1.

The idea of using relative importance as a parameter for the measurement is important, since it provides the framework with the flexibility to be adopted and used in different e-learning environments and with different users. This flexibility allows overcoming of the problem of the users' differences.

This study aims to shed some light on gender and cultural related differences in user perceptions of the relative importance of the main quality factors within the proposed framework. Also, it examines whether the observed differences are significant enough to be considered. The approach taken in this study is to compare user perspectives in two different geographical cultures (Middle East and Europe). Besides that, we will examine the differences between male and female perceptions of information quality in e-learning systems. In this paper we will examine two main hypotheses: first, males and females will have different perceptions of information quality in e-learning, and second, that in a comparison of Middle Eastern and European e-learning system users, there will be cultural differences in the same subject.

The rest of the paper is organized as follows: in the following section we provide a summary of the research methods used in research instruments generation and participants. Then, we summarize the statistical results, followed by extended discussion of the findings and their meaning. Finally, we conclude with details of future work.

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