Abstract

In recent years there has been an increasing respect for green issues, which has been addressed in various products/services as well. It is rare if not almost impossible to find a Web site that supports green customers’ decision process on electronic commerce (EC). A good understanding of users’ online behavior is needed in order to develop a Web site which provides necessary and usable information.

The aims of this one year project study are: (1) to develop an experiment for the study of the interaction between university students and a Web-based system in information search from their e-shopping behavior; and (2) to acquire university students' self-perceived cognition of green electronic products (GEP) information, information needs of electronic products, and personal information by using a questionnaire.

In order to make the project fit within the aims of the study, the reference reviews, related Web sites, related information, and preliminary survey with random sampling in Taiwan have been gathered for designing the experiment of this study in the first five months. Forty undergraduate students participated in the experiment. The measurements, including pre-experiment questionnaire, user-Web interaction matrix, and post-experiment questionnaire, were used to understand users’ information search process and to elicit the information needs captured by their external and mental patterns for applying to the design of a user-oriented Web site. The subsequent questionnaire survey has been designed based on the results of the experiment. The data contained 268 entries sampled from undergraduate students in Taipei.

The four levels of information based on the stages of user information needs, the needs for the Web-based functions, the suggestions of interface design, and gender differences have been addressed based on the results for developing a useful GEP Web site. Finally, 3 home page interfaces have been designed based on the results and the referenced Web sites.

Keywords: User-Web interaction; information needs; user-centered design; green consumer electronic products.