Chapter XVIII

Improving the Usability of Distance Learning Through Template Modification

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Introduction

Navigating distance-learning environments can be a frustrating experience for users. Many find themselves confused about where they are, how they got there, or where they need to move next, a condition coined as “lost in cyberspace” (Webster, 2001). Even finding what they need is no guarantee that they will avoid similar disorientation at a later date when they need to perform the same or a parallel task. The question “Where was the place that I found that?” takes precedence over “What is important for me to learn?” The focus of this study is to discover if there are methods that an instructor can use to reduce user disorientation in distance learning environments.
Review of the Literature

One solution to information access problems in distance settings is good interface design. Learner-to-interface interaction is considered one of four types of critical online interactions that a learner experiences. The other three interactions are learner-to-content, learner-to-instructor, and learner-to-learner (Shelton, 2000). An interface is considered the instructional cues between a system and a user (Hackos & Redish, 1998; Marchionini, 1995). The interface in a distance learning environment is simply the cues that direct the user towards the learning goal. Those cues include signs or signals in the form of headings, buttons, and screen numbers that imply “go here to find… instructional content, the teacher’s e-mail, the unit test…” When the signals are clear, the user knows where they are and where they are going.

Unfortunately, most educators using distance authoring tools (course templates) are not aware of what an interface is, or that when they create their classes, they have the option to modify the interface (or signals) to accommodate the learner. Instructors simply use what is given to them, adding their syllabus to a designated Syllabus space, their grades to a Grade Book space, and lessons to a Course Materials space. Though limited, there are tools in template authoring environments such as eCollege™, Blackboard™, and WebCT™ that allow some degree of modification to the instructional interface. Areas designated for Course Materials, and named as such, can be renamed to more directly address the composition of the topic at hand. For example, Course Materials could be renamed to something more specific, such as Web site Links or Mini Lectures if these titles are more relevant to the instructional strategies of the course. Buttons or link names can also be rearranged to fit the course content and sequence.

Despite the opportunities, many instructors give little thought to how easy it will be for the learner to find the information and navigate the learning space. It is likely that most instructors use the prescribed spaces, regardless of whether they are easily understood or not. This practice is not unusual. Pedagogy may take the backseat in many distance learning environments (Firdyiwek, 1999).

Lohr (2000) suggests three critical roles of the instructional interface that should be accounted for in its design: (1) to provide learner orientation to instructional content, (2) to provide navigational tools to access instructional content and instructional strategies, and (3) to provide feedback. Mayer’s (1993) identification of selection, organization, and integration cognitive processes is a convenient way to emphasize the organization suggested by Lohr.

Selection is the process that takes place when the learner notices the important information and is able to isolate it from less important information. As seen in Table 1, many of the orientation features of the interface address this function. Instructional interface designers should seek to help the learner notice the most salient information when first accessing instruction. For example, a clearly identified topic is an important piece of information that can set the stage for greater understanding.

Organization is the process where the learner is able to chunk or sequence information in a way that is meaningful. In interface design, organization elements include visual cues and features similar to a table of contents that helps a learner mark where they are in the
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