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HOW WOULD YOU DESCRIBE THE WORLD WIDE WEB? ANALOGIES OF THE WEB FROM USERS

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Due to the complexity of the World Wide Web, it is difficult to give novices an accurate description. It has been suggested that when learning new things, we use metaphors to link new concepts to our existing knowledge domain (Marx, 1994). Research has shown that people who were taught to use a mental model when learning to operate an unfamiliar system, had superior performance to those that did not (Fein, Olson, and Olson, 1992; Kieras and Bovair, 1984). What is an appropriate metaphor for the web? Although television has been the dominant metaphor, Nielsen (1999) suggests that the telephone is by far the best metaphor because both the telephone and the Web involve the interactive exchange of information between two parties. Shneiderman (1997) suggests that the most frequent metaphor for the Web is the presentation of information (e.g., encyclopedia with articles, television with channels). Metaphors usage is encouraged in the design of user interfaces because regardless of the experience level of the user, metaphors can incorporate both attractive and familiar elements for most users (Marx, 1992; Vaananen and Schmidt, 1994). Similarly for novice users, an analogy or metaphor for the Web might be useful in helping novice users understand the Web.

The purpose of the present study was to evaluate the analogies and explanations of the World Wide Web that current users generate.

A paper and pencil survey of 41 college-aged students ($M = 20.2$ years old) with varying levels of computer and Internet experience was conducted. The survey first assessed their level of computer experience by asking questions related to length of time of computer use and types of activities done on a computer. The Web experience section assessed Internet experience by asking questions related to length of time of Web use as well as type of activities the Web was used for. Participants were then asked explicitly what their representation or analogy of the Web was. Each participant was asked to generate up to three analogies and explain why each analogy was appropriate and how it might be inappropriate. Each analogy was coded on several dimensions that included complexity of analogy (e.g., number of ideas or objects used in analogy and whether they were interactive or independent), categorization of analogy (e.g., content analysis of the structure or function the analogy represents), and level of reasoning/quality (e.g., deep conceptual versus surface

physical). Responses for analogies varied from the simple (e.g., "library") to more complex (e.g., "imagine a spider web with a computer at each node, where two or more strands connect").

By far the most common analogy reported by all participants focused on the Web as an information repository or source. The results are informative because they highlight how users with different experience levels think about the Web and its use.

The ultimate goal will be to use the analogies generated by experienced users as part of a training program for novice Web users.

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