

Digital Libraries Across Cultures: Design and Usability Issues
Outcomes of the “Cross-Cultural Usability for Digital Libraries” workshop at JCDL ‘03

Nadia Caidi

Faculty of Information Studies
University of Toronto
Toronto, ON M5S 3G6, Canada
caidi@fis.utoronto.ca

Anita Komlodi

Department of Information Systems
University of Maryland, Baltimore County
Baltimore, MD 21250
komlodi@umbc.edu

Digital libraries (DL) are increasingly broader in scope and reach, spanning geographical and cultural boundaries. Yet little research is available on the influence of culture as it pertains to the design and use of digital libraries. To address these considerations, a workshop was organized at Joint Conference on Digital Libraries (JCDL) 2003, the aim of which was to bring together researchers and practitioners (twelve participants altogether) from a variety of disciplines to present current projects and contribute to a collaborative research agenda. The goals of the workshop were: 1) to increase awareness about the area of cross-cultural usability in the digital library community; 2) to identify new tools, techniques and methodologies for cross-cultural study of user behavior in DLs and international user interface design; 3) to provide a forum for generating new research directions and cross-disciplinary collaboration.

The workshop started with presentations by the authors on the concept of ‘culture’, cross cultural usability issues for digital libraries, and studies of information-seeking behavior across cultures. The discussions that ensued established a roadmap for research in the area of cross-cultural design for digital libraries. Two areas were identified:

1. Digital libraries and the preservation of cultural heritage

The advent of digitization has transformed what it means to acquire, control, deliver, and use information resources in society. Individuals, institutions and communities are able to publish and disseminate information about their cultural heritage and create their own digital libraries, which increases the potential for diversity, plurality of voices and empowerment of these communities. These developments raise new and challenging issues around the re-presentation of the vast collections of human culture in digital forms:

- Who are the end-users of these DLs and what are their needs?
- Whose culture is re-presented online (e.g., biases in content selection, inclusion/exclusion of voices, self identification vs. perception by others)?
- How possible is it to digitally ‘backup’ a culture? Is it desirable? (implications and dangers of objectifying culture; representation of experiences)
- Changing culture – changing collections (how to provide for natural growth and community building?)
- Access vs. ownership issues over digital cultural heritage (licensing, intellectual property, infrastructure availability, literacy skills, etc.)

- Implications for information institutions (e.g., libraries, archives and museums) in terms of organization and management of digital content.

Culture is a complex and shifty notion that is very hard to operationalize in practice. The workshop participants called for more research to be undertaken on defining culture in the context of information processing and management, as a means to assess whether and to what extent culture can be considered a design variable in the construction of DLs.

2. Cross-Cultural Usability of Digital Libraries

Cross-cultural usability is concerned with the usability and comprehensibility of user interfaces by users from different cultural backgrounds. Cross-cultural usability issues have been explored in the area of human-computer interaction; design guidelines have been created, design and evaluation methodologies have been devised to implement cross-cultural and international user interfaces [1, 2]. The user population of DLs is often just as international as those of globally marketed software products or Websites. Designing for culturally diverse users is a challenge that deserves more attention when creating DL resources.

The workshop discussed many questions related to cross-cultural usability and participants agreed that more research is needed in the field. Especially important are behavior studies of culturally diverse user groups of information resources. These studies can form the basis for culturally sensitive design for DLs. The following research directions were identified:

- To what extent does culture (national, organizational, domain) impact information seeking and use? Do cross-cultural studies of behavior lead to design guidelines, decisions? How is 'usability' defined in this context?(i.e., performance, satisfaction)
- Culture is mediated by many factors (contextual, individual, etc.) which affect information use. How do these change the effect of cultural background on information use?
- What methods are best to use to study cross-cultural differences in information seeking? Methodological issues: combined approach of quantitative and qualitative methods; asking the appropriate questions to determine a user's cultural belonging, etc.
- What design dimensions should we consider for DLs? Do general user interface design dimensions (language, images, content organization, etc.) translate to DLs? What new dimensions (e.g., relevance, interactivity, involvement, community, novelty, etc.) do we need to consider?

One clear outcome of the workshop was the strong need for research on cross-cultural issues in the design and implementation of DLs (e.g., through case studies of user interface design for diverse user groups, comparative studies of information seekers). It is the intent of the organizers to publish the results of the workshop and invite the DL community to include cross-cultural issues and concerns into its research agenda.

For more information, visit: <http://www.fis.utoronto.ca/faculty/caidi/JCDL03.html>

References:

1. Del Galdo, Elisa; Nielsen, Jakob (eds.). (1996) International user interfaces. John Wiley & Sons, Inc. New York, NY. p. 276.
2. Fernandes, Tony. (1995) Global interface design: A guide to designing international user interfaces. AP Professional, Boston, MA. p. 191.