Results of DLESE User Survey

Tim Weston  
University of Colorado, Boulder  
UCB_320, Boulder, C0 80309  
303-735-2687  
westont@colorado.edu

Lecia Barker  
University of Colorado, Boulder  
UCB_320, Boulder, C0 80309  
303-735-5578  
Lecia.Barker@colorado.edu

Kathy Garvin-Doxas  
University of Colorado, Boulder  
UCB_320, Boulder, C0 80309  
303-735-3148  
garvindo@colorado.edu

ABSTRACT
This paper describes the results of the 2004-2005 user and booth surveys conducted by The Digital Library for Earth System Education (DLESE). The survey asked users of the DLESE site about their background and reasons for using the site. Four-hundred and twenty-five (425) people answered the user survey. The highest proportion were K-12 science teachers whose main reason for use was materials acquisition. Other users included university faculty, students and curriculum developers. Students primarily used the site to find information for assignments.

Categories and Subject Descriptors
K.3.0 [Computers in Education]: General

General Terms
Human Factors

Keywords
Digital Libraries, Usability,

1. INTRODUCTION

The Digital Library for Earth System Education (DLESE) is a NSF funded collection of online resources for K-12 and post-secondary educators and others. Digital resources in the collection include informational websites, lesson plans, student activities/exercises and other materials such as datasets. These resources are accessed through the DLESE Discovery System, an interactive resource identification system. One of DLESE’s central goals is to broaden the user base as well as ensure that it is serving the needs of users. In order to better serve users, it is important to understand first whether the groups of potential users are even aware of DLESE. While the number of users for the website can be tracked, this information does not provide DLESE program personnel with substantive information about who is using the website and why.

2. RESEARCH QUESTIONS AND METHODS

2.1 Research Questions

To learn who uses DLESE and why, the DLESE evaluation service center formulated three basic research questions.

1) Who are the current users accessing the DLESE discovery system? What are the proportions of users in each group?
2) What is their purpose in using the discovery system?
3) Are there differences across groups in terms of why the users access the DLESE discovery system?

2.2 Method: Survey

The DLESE User Survey is a short online survey that seeks to be non-intrusive and easy to complete. Linked to the DLESE site, the survey contains two multiple choice questions with open-ended “other” options and a text box for additional comments. Additionally, users are asked to provide their zip code. The questions include the following:

1) Right now I am searching for…
Options include: a) Something for teaching my students b) Something for my students to use on their own, c) Something for doing an assignment, d) Something for my own learning (but not for school), e) Information/Resources for developing a curriculum, f) A collaborator for a project, g) General information about what resources are in the library and h) Other

2) My perspective in today's search is as a:
Options include: a) Faculty member, b) Teacher (K-12), c) Student (college or university), d) Student (K-12), e) Parent, f) Librarian, g) Developer of curriculum, h) Developer of library services, i) other.

2.3 Method: Analysis

All quantitative data was analyzed for basic descriptive statistics using the statistical software SPSS. Other analyses procedures included cross tabular analysis of the two multiple-choice questions. Qualitative analysis, conducted using the software Nvivo, included categorization of “other” answers and added comments. A map was also constructed with the zip codes of all respondents.
3. RESULTS

3.1 Who Uses the DLESE Discovery System?

As of January 30, 2005, 425 visitors to the DLESE site had completed the survey. Of these, 31% are K-12 science teachers and 13% are college/university faculty members. Other groups represented include K-12 students (11%), college students (13%) as well as developers of educational materials (8%). Smaller percentages of parents (4%), librarians (2%) and developers of curriculum (2%) answered the survey. The remaining respondents include teachers in other disciplines (e.g., English and Health), outreach coordinators, and professional development experts.

3.2 Purposes for Using the Discovery System

Searching for materials for students (25%) is the most frequently cited purpose for those answering the user survey. Other purposes include finding something for an assignment (18%), learning general information about the resources in the library (13%), and finding information for developing a curriculum (7%).

Smaller percentages were looking for information for their own learning (6%), collaborators for a project (5%) or something for students to use on their own (5%).

3.3 Group Differences for Purposes

Fifty-five percent of K-12 teachers and 35% of college/university faculty members answering the short survey looked for materials for their students. 11% of K-12 and 23% and higher education faculty looked for general information about DLESE. Finding information for an assignment was the most frequently cited reason by K-12 and undergrad students for visiting the site (43% and 34%, respectively).

4. DISCUSSION

For the most part results of the DLESE User Survey conformed to the expectations of DLESE personnel. While the majority of users are K-12 science teachers searching for materials for their students, others such as university faculty and students are also represented. One under-represented purpose identified by evaluators were searches for materials to be used directly by students.

Further surveys and other evaluation studies will focus on learning if the volunteer nature of the survey incorporates some form of constant bias (e.g., under/over representation of one group).