Use of Images on Campus: The Visual Image User Study at Penn State (VIUS)

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Penn State University
Art Museum Image Consortium (AMICO)
User’s Meeting
May 8, 2003

Visual Image User Study
funded by the A. W. Mellon Foundation

Steering Committee

Michael Dooris
Director for Planning Research & Assessment, Center for Quality & Planning
Nancy Eaton
Dean, University Libraries (Principal Investigator)
Eric Ferrin
Senior Director, Digital Library Technology
John Harwood
Senior Director, Teaching & Learning with Technology
Henry Pisciotta
Arts & Architecture Librarian, University Libraries

Visual Image User Study
Departments participating:

University Libraries
Computing
Center for Quality and Planning
Teaching & Learning With Technology
Visual Image User Study

Scope:
Arts, Humanities, & Environmental Studies (70 depts.)
All Penn State Campuses (23)
Any form of still picture (except those in books)
  Includes “analog” and “digital”

Visual Image User Study

Internal Assessment (to date):
Survey of all faculty
  (2,134 people, 41% response rate)
Survey of random sample of students
  (2,966 people, 20.2% response)
Authentication logs on existing image databases
Focus group discussions (13 so far)
Formal & informal interviews (24 so far)
Electronic discussion list
Survey of “public” picture collections
Survey of “individual” picture collections (40+)
Transaction log analysis

Visual Image User Study

External Assessment:
Review of metadata approaches
Review of software options
Review of literature & related projects
Some Highlights

1. Enthusiasm for Image Delivery
2. Picture Use by Discipline
3. Hopes & Fears for a System
4. Teaching & Independent Learning
5. Individual Collections & Sharing

1. Enthusiasm for Image Delivery

Random encouragements
Good response rates
Currently picture users:
75.4% of responding faculty
55% of responding students

1. Enthusiasm for Image Delivery

“A system would be useful for my work”
More than 62% of faculty
More than 56% of students
76.8% of faculty who use pictures
79.2% of students who use pictures
1. Enthusiasm for Image Delivery

Use of Existing Image Databases

AP Multimedia Archive: Typical

AMICO Library: Low?
(1/3rd of the AP searches)
Less interdisciplinary?
Smaller? (1/10th of AP)
Too new to Penn State?

2. Picture Use by Discipline

Analog Images Used Per Semester by Faculty

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
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<tbody>
<tr>
<td>Arts &amp; Architecture</td>
<td>93</td>
<td>303</td>
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<td>Earth &amp; Mineral Sciences</td>
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<td>90</td>
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<tr>
<td>Communications</td>
<td>13</td>
<td>25</td>
</tr>
</tbody>
</table>

(Main campus only)

2. Picture Use by Discipline

Faculty Who Use Pictures (Headcount)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
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<tbody>
<tr>
<td>Earth &amp; Mineral Sciences</td>
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<td>96.6%</td>
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<tr>
<td>Agriculture</td>
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<tr>
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<tr>
<td>Communications</td>
<td>23</td>
<td>56.5%</td>
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<tr>
<td>Overall</td>
<td>76</td>
<td>76.9%</td>
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</table>

(Main campus only)
2. Picture Use by Discipline

% of Images Used That Were Digital

<table>
<thead>
<tr>
<th>Discipline</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth &amp; Mineral Sciences</td>
<td>60</td>
<td>65%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>156</td>
<td>63%</td>
</tr>
<tr>
<td>Communications</td>
<td>13</td>
<td>42%</td>
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<tr>
<td>Arts &amp; Architecture</td>
<td>93</td>
<td>39%</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td>199</td>
<td>33%</td>
</tr>
</tbody>
</table>

(Main campus faculty only)

2. Picture Use by Discipline

Importance Placed on Digital Uses
(scanning, digital cameras, downloading, burning to disc, altering and posting to web)

Greatest Importance: Earth & Mineral Sciences, Agriculture
Least Importance: Liberal Arts

(Main campus faculty only)

3. Hopes & Fears for a System

“Greatest Area of Doubt” (choose 3)

651 That the content of the images collected will suit my areas of interest
405 Other technical matters (access to good equipment, reliable networking, etc.) will interfere
328 Would be too hard to learn to use
292 Language used for the images won’t match my search terms
249 I will still need a separate system
206 Documentation of the images will be insufficient
212 I won’t be able to keep my notes and other data together with the images
211 Quality of the digital images will be inadequate
3. Hopes & Fears for a System

Content Is King

3. Hopes & Fears for a System

“Most Useful Aspect of a System” (choose 3)

- 339 / 203 More images than now
- 331 / 217 Reducing my labor
- 329 / 127 Copyright & permissions sorted out
- 328 / 113 It would encourage me to try digital
- 276 / 94 Accessibility for my students
- 162 / 141 Easier than checking separate sources
- 160 / 133 Images from a variety of disciplines
- 109 / 94 Easier to study for tests

(Faculty # / Student #)

3. Hopes & Fears for a System

Faculty: “A system would help my…”

- 579 Teaching
- 159 Research
- 111 Outreach
- 39 Would not help
3. Hopes & Fears for a System

Yet current use of digital is prevalent for research:

<table>
<thead>
<tr>
<th></th>
<th>Digital</th>
<th>Teaching</th>
<th>Research</th>
<th>Outreach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog</td>
<td>0.16</td>
<td>0.88</td>
<td>0.25</td>
<td>0.15</td>
</tr>
<tr>
<td>Digital</td>
<td>0.38</td>
<td>0.45</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td>Teaching</td>
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<td></td>
<td></td>
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<tr>
<td>Research</td>
<td></td>
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<td>0.07*</td>
<td></td>
</tr>
</tbody>
</table>

Pierson’s Correlation Coefficient. All significant: p<0.001. Except *: p=0.065

3. Hopes & Fears for a System

Should presentation tools be tied to the retrieval system?

Some of the survey data suggests no.
Some of the softer information suggests yes (& no).

3. Hopes & Fears for a System

Faculty want to be able to use their own pictures with those retrieved from the system.

Faculty do not want to use a live connection in the classroom.

Speed worries.
Reliability worries.

(from interviews and surveys)
4. Teaching & Independent Learning

Teaching Needs:
- Faculty Teaching
- [Grad Students Teaching]

Independent Learning Needs:
- Students
- Faculty Conducting Research

Teaching:

Larger quantity of images

Median # of pictures used for:

- Teaching 50
- Research 20
- Outreach 5
- Other 5

(per semester)
4. Teaching & Independent Learning

Teaching:
Larger quantity of images

Independent Learning:
Larger variety of search keys

4. Teaching & Independent Learning

<table>
<thead>
<tr>
<th>Place</th>
<th>Chronology</th>
<th>Creator</th>
<th>Media</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty: Teaching</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Faculty: Research</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Faculty: Outreach</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>

* + = Chose as important more often than those not in this group.

4. Teaching & Independent Learning

Undergrads:
Use fewest images
Greater concern for “quality”
Concern for descriptive language
Greatest concern for search features
Interest in uncommon searches
e.g. visual similarity
e.g. I’ll know it when I see it
5. Individual Collections & Sharing

“Public” Collections Are Few

Art History Slide Library
Palmer Museum of Art
Anthropology Museum
Libraries Special Collections
…& a few others

5. Individual Collections & Sharing

“Individual” Collections Are Common

44.1% of faculty who use pictures (n=282)
500 pictures median size

44% of students who use pictures (n=143)
50 pictures median size

5. Individual Collections & Sharing

Sharing Pictures: Issues

Rights & Permissions – how do I know if I can show someone else’s work?

Trust - will others use my original work responsibly?

Poor descriptive information
28 of 40 collectors label pictures
3 of 40 list, catalog, or database
(this is softer information)
5. Individual Collections & Sharing

Sharing Pictures: Issues

Most faculty remain neutral on questions about sharing

Many willing to share if...

25 of 40 faculty would still maintain a personal collection
    (this is softer information)

Summary

1. Enthusiasm for Image Delivery:
   Plenty.

2. Picture Use by Discipline:
   Most use some.
   A few use a lot.

3. Hopes & Fears for a System:
   Content, Content, Content.
   Expectations are high.
   Especially for teaching.

Summary (continued)

4. Teaching & Independent Learning:
   Teachers need lots of images?
   Learners need more search keys?

5. Individual Collections & Sharing
   Individual collections are important.
   They are poorly described.
   Faculty are ambivalent about sharing.
Prototype database service
- Focused subject area (landscape and architecture)
- Content as an ongoing service
- Multiple image sources
  - Large faculty collections
  - Commercially licensed images
- Multiple metadata sources
- Evaluate software?
- Teaching/Learning uses?

Current Project Activities

Prototype peer-to-peer system
- Explore sharing issues
- Encouraging description
- ID popular material for the db service

Design a toolkit to help individuals manage their collections and encourage description

Current Project Activities

AMICO, AP Archive, Penn State
Prototype Service: authentication logs

- Authentication logs on three image databases for the period, 8/29/01 - 01/13/03
- Statistics:
  - month
  - hour
  - user by month
  - User profile
  - User’s at Campus locations
Database Authentications by Undergrads

AMICO Authentications by User Profile
(08/29/01 - 01/13/03)

Visual Image User Study

Project Website:
http://www.libraries.psu.edu/crsweb/vius

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