A Case Study of Visual Literacy among Library and Information Science Students

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Overview

• Background
• Questions
• Methods
• Findings
• Conclusion
Background

- Who?
- What?
- When?
- Why?
Defining Visual Literacy

• “a set of abilities that enables an individual to **effectively** find, interpret, evaluate, use, and create images and visual media. Visual literacy skills equip a learner to understand and analyze the contextual, cultural, ethical, aesthetic, intellectual, and technical components involved in the production and use of visual materials. A visually literate individual is both a **critical consumer** of visual media and a **competent contributor** to a body of shared knowledge and culture.”

  (Association of College and Research Libraries, 2011)

• For this study: interpret, analyze, identify and describe the content of images
Virtual Motor City

- *Detroit News’* photographic negative archive
- Subset digitized and made freely available
Research Questions

- RQ1: What activities increase visual literacy in the areas of image description and analysis?
- RQ2: How do students’ perceive their learning process?
Methods: Participants

• 31 MLIS students at Wayne State University
  – Enrolled in a digital libraries course
• Course conducted asynchronously online
  – Recorded lectures with slides, audio & video
• Prerequisites for the course:
  – Introduction to LIS profession
  – Introduction to reference
  – Introduction to cataloging
  – Basic information technology
Methods: Data Collection

• Qualitative study
  – Examines students’ understanding of, and affective responses to, creating image descriptions

• Data collection
  – Image records
  – Blog reflections

• Collected at three points
  – At start of the semester
  – Midpoint
  – At end
Methods: Data Collection & Analysis

• Image records -> Excel Spreadsheets
  – Descriptive statistics
    • Which fields were changed most often
    • Which version was most often changed
  – Case ordered displays
    • Compared changes in data
    • What changes were made

• Blog entries -> Word documents
  – Thematic analysis of student’s reflections
    • Constant-comparative method
Methods: Exercise 1

- Assigned week 1
- Student assigned 10 to 30 images
  - Spreadsheet with data
  - Link to record
- Exercise provides
  - Basic concepts
  - Reference resources
  - LCSH, AAT, TGN, etc.
# Methods: VMC Record Example

<table>
<thead>
<tr>
<th>Historical Title</th>
<th>steamships; Tashmoo 1 neg; glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>8-8-1930</td>
</tr>
<tr>
<td>Decade</td>
<td>1930s</td>
</tr>
<tr>
<td>Film Size</td>
<td>4x5</td>
</tr>
<tr>
<td>Donor</td>
<td>The Detroit News</td>
</tr>
</tbody>
</table>

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Methods: Exercise 2

- Assigned week 8
- Another student reviews
  - Exercise 1 spreadsheet
- Quality control
- Course content to date
  - Information organization
  - Metadata
  - Usability
  - Evaluation in DLs
  - Selection
  - Project management
Methods: Exercise 3

• Assigned week 13
• Original student
  – Re-examines their own Exercise 1 spreadsheet
  – Asked to add/change anything needing additional work
Findings: Spreadsheets

• Most often modified (added or changed) fields
  – Title, LCSH, tags, description
  – ~60% of modifications in Ex. 3

• Majority of changes consisted of:
  – Capitalization, spelling, punctuation, language
  – More detail added
Findings: Spreadsheets

Title

Ex. 1 - View of two girls.
Ex. 2 - View of two girls on the steamship Tashmoo.
Ex. 3 - View of two girls waving to the steamship Tashmoo.
Findings: Spreadsheets

LC Subject Headings:

Ex. 1 Gar Wood
Orlin Johnson
Boats

Ex. 2 Wood, Gar
Johnson, Orlin
Miss America VII (Motorboats)

Ex. 3 Same as 2 - should have been:
Wood, Garfield Arthur, 1880-1971

Boats ; Motorboats ; Miss America VII (13450)

<table>
<thead>
<tr>
<th>Record ID</th>
<th>13450</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical Title</td>
<td>Boats ; Motorboats ; Miss America VII Head on view close up of Gar Wood and Orlin Johnson</td>
</tr>
<tr>
<td>Date</td>
<td>9/2/1928</td>
</tr>
<tr>
<td>Decade</td>
<td>1920s</td>
</tr>
<tr>
<td>Film Size</td>
<td>4x5</td>
</tr>
<tr>
<td>Donor</td>
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Findings: Blog

Frustration & Dissatisfaction

• External issues
  – Tools
  – Resources
  – Time
  – Data
  – Loss

• Internal issues
  – Knowledge
  – Experience
  – Courage

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Findings: Blog

Frustration & Dissatisfaction

• External issues
  ➢ Tools - limitations of vocabularies
    – Resources
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Frustration & Dissatisfaction

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  ➢ Experience - cataloging and images
  – Courage
Findings: Blog

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  – Time - need more, better management
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  – Loss - destruction

• Internal issues
  – Knowledge - own limitations
  – Experience - cataloging and images
  ➢ Courage - confidence in their own abilities
Confidence (1)

• Lowest when changing existing data
  “I suddenly felt very overwhelmed and under-qualified to work on this exercise. ... I found myself faced with a dilemma ... am I fixing things or am I making them all horribly, horribly wrong?” [Student 25]

• Tied to critical nature of description
  “Weight of knowing that your eyes might be the last ones to see an item before it goes live.” [Student 9]
  “[I]f the data is inaccurate, one might create user dissatisfaction and a bad reputation.” [Student 8]
Findings: Blog

Confidence (2)

• For some it increased across exercises
  “This exercise showed me the importance of coming back to materials with fresh eyes and a deeper level of experience ... I didn’t find many errors, but I did feel a lot more confident in the revision process.” [Student 9]

• For others it was a struggle
  “I am not fully satisfied with my results because I would have liked to have more time to research all of the images in order to provide more thorough annotations.” [Student 13]
Findings: Blog

What they felt they learned

• “My view of descriptive cataloging has changed in the sense that *I now realize just how hard it is.*” [Student 13]

• “I learned from these exercises that I probably need to reign [myself] in a bit. I was probably starting to put things into the metadata that was really just a guess, rather than accurate. Taking the time to research is great, but putting in inaccurate data is not. *Take your time, be accurate, and be honest when you don’t know.*” [Student 25]
Conclusions

• The exercises increased students’ visual literacy
  – However, increase was minimal
    • Need for one-on-one guidance
  – Students came away with an increased understanding of the challenges involved in describing images

• The students experienced a great deal of frustration during the exercises
  – Methods of increasing the fun factor
    • Enjoyment associated with the required research
Future Work

• Continue the study with modifications:
  – Provide one on one feedback about their work
  – Provide a framework for analyzing image content
  – Find additional exercises that help with using controlled vocabularies
  – Interview highly effective students

• Develop guidelines on how to increase visual literacy skills among individuals who describe images
Thank you

- Comments or questions?
- Joan E. Beaudoin
- Contact me: ee4525@wayne.edu