Visualizing the Research Process: A Participatory Design Study for Developing Research Data Management Library Services

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Introduction

- Methodology and findings from a pilot study exploring early career researchers’ visualizations of the research process in their disciplines
- Visualizations prompt participants’ ideas for new RDM library services
- Draws on a methodology termed visual narrative inquiry which uses storytelling to study individuals’ experiences (Bach 2008; Bowler et al, 2014)

Research Questions

- How do early career researchers visually conceptualize the research process in their disciplines?
- What does visual narrative inquiry reveal about participants’ RDM needs?
- What does visual narrative inquiry reveal about their recommendations for RDM services?

Methodology

1. Setting the Stage
2. Visualizing the Research Process in Participants’ Disciplines
3. Reviewing the Research Process Visualizations
4. Enhancing the Sketches
5. Reviewing the RDM Services, Tools, or Resources
6. Debriefing

Participants in Pilot Focus Group

<table>
<thead>
<tr>
<th>ID</th>
<th>Status</th>
<th>Discipline</th>
<th>Structure of Research Process in Sketch</th>
<th>Examples of RDM Service Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Doctoral Candidate in Dissertation Stage</td>
<td>Information Science</td>
<td>Research Process as Flow Chart</td>
<td>Catalog of shared datasets</td>
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<tr>
<td>B</td>
<td>Postdoctoral Researcher</td>
<td>Library and Information Sciences (LIS)</td>
<td>Research Process as Mind Map</td>
<td>Librarian role in integrating information on RDM best practices into methods courses</td>
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<tr>
<td>C</td>
<td>Postdoctoral Researcher</td>
<td>Research Process as Linear Course</td>
<td>RDM workshop on best practices for qualitative researchers</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Postdoctoral Researcher</td>
<td>Research Process as Linear Course</td>
<td>No RDM services recommended</td>
<td></td>
</tr>
</tbody>
</table>

Preliminary Results and Conclusions

- Researchers visualize the research process differently even in the same or closely related disciplines
- Two participants included RDM as a single stage (see Participant B and C sketches)
- Participants were self-aware that there is room for improvement in their RDM practices and welcomed assistance from the library
- RDM service recommendations included web-based resources, workshops and consultation support
- Not all recommended services related to RDM

References