Evaluation and evolution of the Share-VDE 2.0 linked data catalog

Jim Hahn, Beth Camden, Kayt Ahnberg, Filip Jakobsen
Background - What is Share-VDE?

► Community
  ► Libraries in partnership with Casalini Libri and @Cult
  ► Share Family of LOD projects

► Technology
  ► Leader in library LOD & BIBFRAME since 2016
  ► Suite of tools & services supporting LOD for libraries

► Discovery
  ► LOD Discovery Environment:  [https://www.svde.org/](https://www.svde.org/)
Share-VDE Groups
Share-VDE Suite of Tools and Services

- Data conversion service: MARC to BIBFRAME
- Member-developed data model
- Sapientia Cluster Knowledge Base
- J.Cricket Editor
- Entity-based BIBFRAME catalog https://www.svde.org/
What is Share-VDE to Users?
User Studies

In the past year two studies gathered direct user input from Penn users. UX testing focused on task analysis, prototype testing and feedback, usability benchmarking, and stakeholder interviews.

**Testing Cycle 2**
- **Environment:** Mockups (Figma)
- **Focus:** prototype testing (concept pages), SUPR-Q metric, SVDE in context
- **Mode:** Recorded Zoom screen share
- **Participants:** 5
- **Tasks:** 3
- **Recorded hours:** 2.5
- **Date:** Fall 2022 (ongoing)

**Testing Cycle 1**
- **Environment:** svde.org (Beta)
- **Focus:** usability, disambiguation, exact title matching, exploratory tasks, UI terminology
- **Mode:** Recorded Zoom screen share
- **Participants:** 5
- **Tasks:** 6
- **Hours:** 3+
- **Date:** Spring 2022
# User Studies

## User Testing Cycle 2: Participant Profiles

<table>
<thead>
<tr>
<th>Campus role</th>
<th>User 1</th>
<th>User 2</th>
<th>User 3</th>
<th>User 4</th>
<th>User 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate student, Veterinary School</td>
<td>Faculty, East Asian languages and Civilizations</td>
<td>Research coordinator, oncology</td>
<td>Undergraduate, East Asian Languages and Civilizations</td>
<td>Doctoral student, Criminology</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experience level searching online library catalogs (self assessed, scale)</th>
<th>User 1</th>
<th>User 2</th>
<th>User 3</th>
<th>User 4</th>
<th>User 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some experience</td>
<td>A lot of experience</td>
<td>A lot of experience</td>
<td>Some experience</td>
<td>Some Experience</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>When you want to get started with the basics of a topic, the background information, where online would you start your search?</th>
<th>User 1</th>
<th>User 2</th>
<th>User 3</th>
<th>User 4</th>
<th>User 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google, Google Scholar</td>
<td>Google, museum and auction house collections</td>
<td>Google</td>
<td>Library catalog, Google Scholar</td>
<td>Google</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>When you’re trying to find works related to something you’ve read or used where do you typically go to find them?</th>
<th>User 1</th>
<th>User 2</th>
<th>User 3</th>
<th>User 4</th>
<th>User 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibliographies</td>
<td>Bibliographies, Bibliography of Asian Studies, JSTOR</td>
<td>Bibliographies (article)</td>
<td>Bibliographies, JSTOR</td>
<td>Bibliographies, LexisNexis</td>
<td></td>
</tr>
</tbody>
</table>
We asked users:

Can you briefly describe what this catalog does?

“I would say that it kind of parses resources and sources into different categories. So you can learn about a given topic from like primary sources or secondary tangential sources.” (User 3 - Research Coordinator)

“It allows you to search for articles and information based on a key topic or event that you’re looking into. It also gives you information on them, people or places that are relevant to your topic. And you can find articles that are all linked together by subgrouping or by general topic.” (User 1 - Graduate Student)

“This catalog of works like a card catalog in a library, back in the old days in that it includes links that let you get to information that you need about the particular kind of [topic] it presents.” (User 2 - Adjunct Faculty)
We asked users:

If you were looking for information related to this subject, what do you think “Topics and events related to this” might mean?

- Expectation matched content
- Described by users as topic milestones and research touchstones

Would you find “Topics and events related to this” be useful or not useful?

- All users responded positively

Is the information describing these “Topics and events related to this” clear or not clear?

Type:

- “Riot” vs “Demonstration”
- Concept page vs. work unclear
What do you think “Original Works by” and “Publications by” could mean in relationship to the information on this page?

- Successful distinction between works and publications
- User suggestion - list published works first as context clue
- User suggestion - consolidate and works and publications and filter by type

If you were looking for information about this person, would “Related topics and events” be useful or not useful?

- All users responded positively
- “I think it would be super helpful to scroll through this related topics and events tab to figure out why [Martin Luther King Jr.] was relevant and what exactly he had a role in doing. Why, he’s a prominent figure in history (graduate student).”
We asked users:

At what points in your research process could it be useful to connect with this resource?

“I would use this as a first line source when starting a research paper. I would look at this first and then click on specific articles and kind of go from there and if I found an article I liked I would look in the works cited of that (graduate student).”

“I think this would be useful in the beginning to middle phases when I was looking a material related to a specific topic. When I’m looking for lots and lots of details about something...as I was starting to narrow down my search topic (faculty). “

“It really helps you orient to a topic, and unlike a search engine you don’t miss seminal events (researcher).”
Adapted SUPR-Q (Standardized User Experience Percentile Rank Questionnaire)

Design metric functioning as a snapshot that captures:

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
<th>1-5 scale where 5 = strongly agree</th>
<th>U1</th>
<th>U2</th>
<th>U3</th>
<th>U4</th>
<th>U5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Usability</strong></td>
<td>4.2</td>
<td>Overall, this catalog seems easy to use</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>4.5</td>
<td>It would be easy to navigate within this catalog</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Trust and credibility</strong></td>
<td>4.25</td>
<td>I would feel comfortable finding library materials here</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>4.4</td>
<td>I would feel confident that the materials I found would meet my research needs</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>3.7</td>
<td>I find the design of this catalog to be attractive</td>
<td>4</td>
<td>3</td>
<td>4.5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>4.8</td>
<td>This catalog has a clean and simple presentation</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Engagement</strong></td>
<td>4.25</td>
<td>Given a choice, I would like to use this catalog in the future</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Next steps

What we found. Where we are going.
SVDE support for the LRM User Task -- Explore

To discover resources using the relationships between them and thus place the resources in a context...

SVDE support to understanding:

“... the structure of a subject domain and its terminology” (p.99)

Chapter 6 of IFLA’s LRM document on mapping LRM user tasks.

https://www.isko.org/cyclo/lrm#3
LRM user tasks more broadly…

“LRM defines five user tasks lists the goals users want to reach when performing the tasks. The term resource is used in its broadest sense, meaning an instance of any entity defined in the model. Find, Identify, Select, Obtain, Explore

The tasks are listed in an order that reflects typical user behavior, which does not mean that all tasks need to be performed and that they cannot be repeated. Particularly identify and obtain often occur in parallel and in interaction.”

IFLA Library Reference Model (LRM) Harmonisation of the FRBR Family
## LRM user tasks

<table>
<thead>
<tr>
<th>Find</th>
<th>Identify</th>
<th>Select</th>
<th>Obtain</th>
<th>Explore</th>
</tr>
</thead>
<tbody>
<tr>
<td>To bring together information about one or more resources of interest by searching on any relevant criteria</td>
<td>To clearly understand the nature of the resources found and to distinguish between similar resources</td>
<td>To determine the suitability of the resources found, and to be enabled to either accept or reject specific resources</td>
<td>To access the content of the resource</td>
<td>To discover resources using the relationships between them and thus place the resources in a context</td>
</tr>
</tbody>
</table>

[https://www.isko.org/cyclo/lrm#3](https://www.isko.org/cyclo/lrm#3)
Next steps

Integration of explore task support through:

- **SVDE APIs**
  - Entity based autocomplete
- **BibCard Implementation**
  - Authors
Conclusion

Broadly looking to incorporate design patterns that can better support exploration tasks. SVDE is well suited to help users find context while navigating collections.

- **Type-ahead and entity suggestions** from SVDE API within our Bento (multi-search box) provides search assistance to users over a variety of search targets.

Search assistance can dynamically suggest alternative terms, query reformulations, and possibly “best bets,” search suggestions in a discovery layer. This functionality can draw on Share-VDE APIs. Relies on Share-VDE infrastructure to dynamically pull in search assistance data.
Thank you and questions

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Works consulted
