FCoP Scenarios for Software (Re)Use and Access - LCM+L

Jan - Feb 2019

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Timeline:

- (January 7 - January 11) Brainstorm Scenarios for Use & Access
- (January 14 - January 25) Gather User Data
- (January 28 - February 1) Data Analysis and Preliminary Observations
- (February 4) Cohort Monthly Call - Scenarios for Use & Access Reports

Purpose:

The purposes of this exercise are to:

- Articulate potential software (re)use and access scenarios
- Inform/Verify your assumptions regarding (re)use and access scenarios by surveying a designated user

Instructions:

1. Complete 1-5 scenarios for use and access using the prompt below.
2. Identify 1-3 users whose use cases you believe may correspond with the scenarios for use and access that you articulated.
3. Ask participants to share 15-20 minutes of their time to reflect on their different needs related to software curation and preservation by completing the questionnaire.
4. Participants complete questionnaire

5. Analyze participant responses to determine the distance between your participant reflections and the scenarios for use and access driving your interest in software curation, preservation and emulation. Reflect on your findings.

Detailing your scenarios for use and access:

Actors	**Goals**	**Resources**	**Challenges**	**Anecdotes for this use case**
Type of stakeholder or user involved in the use case.	What does the actor want to do with software or software-dependent data?	What resources are available to this actor or these actors to achieve their goals - what resources do they need?	What challenges could your users face in attempting to accomplish their software reuse goals?	Any real world scenarios that you have witnessed or been involved in that informed your articulation of this use case.
LCM+L Engineer	Run software and look at data on vintage computers. Make this software available online and onsite. Write emulators for vintage operating systems.	Working vintage computers. Collection of repairable computers and spares. Collection catalog. Online manuals. Physical manuals. Physical media. Digitized media. Tools to digitize software currently obsolete media.	Computer needs to be restored or repaired. Software is not found yet. Software is not catalogued yet. Need to make tool to digitize specific obsolete media. Need to make emulator on which to run the digitized obsolete media.	Engineer found the survey very difficult to understand. What do you mean by "researcher software" for example. The name seemed to change several times.
LCM+L Museum guide	Use software on vintage computer. Explain history and use of this software to local visitors.	Working vintage computers. Collection catalog. Online manuals. Physical manuals. Training on disk copying workflow and tools. Extant quick start guides.	Disk copying workflow is too time consuming and detailed for museum guides to do. Visitors break disks, disk drives, and working computers. Many microcomputers have moved to keeping software on contemporary media and tools rather than allowing visitors to	Museum guide thinks all the things in the survey are important. Not a very discerning answer...

			load software using vintage media.	
LCM+L local visitor	Use software on vintage computer. Learn history of computing via hands-on experience: software, vintage carriers, vintage mainframe, mini-, and micro-computers.	Working vintage computers. Software programs running on vintage computers. Interpretive signage. Quick start guides. Museum guides. Terminals to computers available online.	Overwhelming quantity of computers. No quick start guides on some machines. Not enough variety of software on computers. Not enough manuals at machines.	

LCM+L online visitor	Use software on online working vintage computers. Emulators available for download and installation on local machine.	Working vintage computers. Time-sharing operating systems. Network running. Web page from where to sign up for online accounts. GitHub from where to download emulators.	Emulators require a more-than-novice level of computer understanding to install and use. Software for emulators must be obtained elsewhere on the web, like bitsavers.org, archive.org, and other hobbyist sites.	
LCM+L curator	Mount exhibit demonstrating aspects of vintage software.	Working vintage computers. Engineering staff. Collection catalog & resources.		Apple I + Woz basic exhibit. Apple II plus in Totally 80's exhibit. Unix @50 exhibit. Couldn't get him to fill out the survey.

LCM+L researcher				Will Mari

SPLab customer	Have SPLab read, digitize, make available software and data on vintage carriers, using vintage computer equipment.	SPLab manager. Working vintage computers and peripherals. Engineering expertise. Marketing. Accounting.	Each type of media requires a different setup. Media fragility.	MOMMI. DECtape emulator. Punch card digitizer. Starting to get emails and letters requesting our expertise.

LCM+L archivist	Goals: Ingest and then find the stuff. Make it work with EaasI.	Resources: Catalog. Metadata. Shelves SPLab. Engineers. Working computers. Acquisitions policy. Website	Challenges: Metadata is not established, have to make it up ourselves. So much stuff, hard to keep up. Detailed knowledge is difficult to find/attain.	Other: Museum displays, outreach. Collect other: Inventory log. Stakeholders other: patrons, engineers, front end staff

Questionnaire Template:

Scenarios for Use and Access Creator/Researcher Questionnaire

1. For what purpose(s) do you create/use/reuse software for? Check all that apply.
   - ❑ To validate or test existing claims
   - ❑ To generate a new research outcome
   - ❑ To document or assist in the research process
   - ❑ As an historical artifact
   - ❑ To provide or recreate an experience
   - ❑ Other_____

2. What function(s) do you create/use/reuse software for? Check all that apply.

   - ❑ Replication/reproducibility/validation

- ❑ Research outcome
- ❑ Aggregation
- ❑ Computation
- ❑ Migration
- ❑ Artifact
- ❑ Other_____

3. What documentation should be collected related to how you create/use/reuse software?

- ❑ User manuals
- ❑ Technical specs/requirements
- ❑ Bugs/Testing Protocols
- ❑ Correspondence
- ❑ Promotional material
- ❑ Publications
- ❑ Other_____

4. For software you have created/used/reused, what components do you consider as essential to retain?

- ❑ Hardware / peripherals
- ❑ Libraries
- ❑ Dependencies
- ❑ Programming languages
- ❑ Algorithms
- ❑ Environments
- ❑ Documentation

5. What was the storage location for the software you created/used/reused?

- ❑ Removable media (diskettes; CDs; USB drives)
- ❑ Computer hard drive
- ❑ Hosted on website (github; research group homepage; cloud storage)

6. Which institutional stakeholders are involved in how you create/use/reuse researcher software? Please check that all apply

- ❑ Software developer
- ❑ Librarian
- ❑ Copyright officer
- ❑ Archivist
- ❑ Curator
- ❑ Research data manager

- ❏ Steward
- ❏ Publisher
- ❏ Deployer
- ❏ Other_____

7. On a scale of 1-5, please rate your level of agreement with the following statements:

1 – Strongly disagree 2 – Disagree 3 – Neither agree or disagree 4 – Agree 5 – Strongly agree

___ It is important to me that the provenance of this software has been fully documented.

___ It is important to me that I will be able to access this software in the future.

___ It is important to me that others can easily discover this software in the future.

___ It is important to me that I can replicate my previous experiences with this software in the future.

___ It is important to me that others can use this software in the future.

___ This software offers a unique experience.

___ I want research libraries to steward this software.

___ I am comfortable with the idea that this software may be updated or enhanced in the future.

Data Analysis and Discussion Questions:

Internal Scenarios for Use and Access

1. **As you were developing out more verbose scenarios for use and access, what types of internal questions arose?**
2. **Was it difficult to choose which user scenarios to articulate, or was it relatively simple? If difficult, what might make that process easier?**
3. **Did you have some existing source of user data to inform these scenarios, and if so, what are the sources of this data?**
4. **What was your thinking/criteria/basis for prioritization if you had numerous scenarios for use and access?**

Researcher/Creator Questionnaire

5. **Were you surprised by any of the questionnaire responses from your users?**
6. **Did you find any patterns across user responses?**
7. **What new questions did these responses raise for your team? What additional information do you want or need to know from your users in order to inform internal policies, requirements and workflows for software preservation and emulation?**