

Product Description

Stacks is a secure analytics tool created for librarians. This desktop application enables a user to create, view, and update analytic visualizations of library data using a variety of functions. This application helps librarians accurately assess the usage of their resources with functions such as searching for specific data, sharing data with other colleagues, comparing different data sets, and generating new visualizations. Stacks allows users to customize their home dashboard keeping a couple of visualizations easily accessible. By enabling librarians to more easily draw salient insights from data Stacks hopes to empower librarians to provide relevant resources to the community they serve.

I. Part 1: Evaluation Plan

Purpose

The purpose of this evaluation document is to document usability testing we performed using a paper prototype. By observing specific tasks and collecting feedback from our users; we gained several valuable insights helping to ensure that our product design enables librarians to easily understand and interpret data.

Key Evaluation Questions

- Do participants understand the purpose of our application?
- Is our application easy to use?
- Does our application add value?
- What common errors do participants make when using our application?

Scenario

You are a librarian who relies on library usage data to understand resource usage at your branch. You use Stacks to easily understand and interpret data.

Tasks

Users were asked to complete the following tasks:

Task - 1: Edit a visualization on the Dashboard

In this task, we want users to edit visualizations on their home dashboard. The dashboard is a collection of visualizations created from library resources and attendance data. A pop up allows users the opportunity to select a different visualization or graph (bar graph, line graph, scatterplot, pie chart etc) to represent the data as you see fit.

- Completion Criteria: When the user selects the visualization type then clicks on the check mark to confirm. The changes will be updated immediately, and the task is complete.

Task - 2 Create a new visualization from an uploaded file

In this task, we want a user to upload an external data file. The user will select a visualization for the dataset (bar graph, line graph, scatterplot, pie chart etc). This will automatically generate and display the data in a spreadsheet and chosen visualization. The user can then use the spreadsheet preview to select the columns of the data to generate a visualization from.

- Completion Criteria: The task has been completed when the user is satisfied with the preview of the data visualization and clicks the check button.

Task - 3 Input event attendance from the event calendar

For this task, the user will navigate to the event calendar page. From the calendar view, the user will click on the event that they are recording data for. A pop up interface will allow them to input of the number of attendees.

- Completion Criteria: When the user inputs attendance and hits the check symbol button on the pop up interface.

Methodology

During our usability test we asked users to think aloud. We provided each participant with three tasks to complete, along with a brief scenario for context. We then asked our test participants to use the system to accomplish the tasks, while continuously thinking out loud. Before the test began, pre-test questions were asked to gather information on demographics and experience level. To get further feedback, we asked each participant questions between each task.

Pre-Test Questions

- Currently, do you use any analytics tools?
 - If yes, What is your experience level?
 - If yes, How often do you use it?

Post-Test Question

- Rate the difficulty of Task 1, Task 2 and Task 3 on a scale of 1-5 ?
(1= very easy, 5 = very difficult)
- How was your overall experience with the platform?
- Do you have any suggestions of features you would like to see?

II. Part 2: Simple Evaluation

User Demographics

Participant 1:

Participant 1 works for KCLS Bothell location. Completed a Masters Degree in Library Science. Experience level of using an data analytics tool is limited to a system that displays data in the form of spreadsheets. The current system used is not focused on representing information in the form of visualizations. Participant 1 does use this current system at least once a week.

Participant 2:

Participant 2 works for the Seattle Central Library, and has a Masters Degree in Library Science. Some experience with using Excel but little experience with data beyond that. Participant 2 interacts very little with library data currently but would like to more if it was easier.

Participant 3:

Participant 3 is a librarian at the Vancouver Public Library. He completed a Masters of Library and Information Studies at University of British Columbia. He currently uses a database for sorting books, and “hard to use” interface for tracking events on a schedule (Biblioevents). The library he works at doesn’t have a functioning way to view data on resource use.

Participant 4:

Participant 4 works at the Kingsgate Regional Library of KCLS and has a Master's in Library Sciences. Participant 4 is relatively experienced with data analysis and analytics tools from prior jobs, but does not work analytics in their career as a librarian outside of occasional use of Excel spreadsheets. Participant 4 regularly uses the current library catalog software and has previously discussed ways to observe library resource data with coworkers.

Synthesized Findings

After our usability testing, we were able to uncover common feedback of where participants struggled to complete each task. As a whole, participants seemed to view the concept of the software as a much-needed tool within the industry. However, there were several key remarks about potential improvements in the prototype's design and layout. In this section, we have synthesized common findings and our strategy to resolve each of the following design issues.

Findings 1: Link names need to be clear on sidebar: P2 remarked that view events seemed very passive and not like a place to upload. P1 mentions that link names did not match what they expected when clicked on.

Finding 2: Labels need to be clearer and increased: P1, P2, and P4 were confused by "current visualization" and "other visualization" after a visualization was selected to edit. P2/P3 also suggested that more labels need to be added on the previews in the upload data page.

Finding 3: More status indicators: selected options need to glow or be bolded to indicate that they have been selected P2 was confused and could not tell what they had clicked.

Finding 4: Need to add a button to confirm the user created a new visualization: P3 expressed confusion about finishing task completely. P4 wanted to see some form of confirmation after creating a visualization that also briefly highlights the new visualization in its spot among the other files.

Finding 5: Create an additional confirmation pop up when creating public events: P3 concerns about accidentally flipping the switch to make private events public on the interface.

Finding 6: Add labels/title to dashboard: P1 and P4 expressed some confusion of the graphs on the dashboard and what they represented. Needed some further explanation

of each of the 3 icons on dashboard and how they differ from the other visualizations and files.

