

Discovery Platform Evaluation: SUS Scale Analysis Report

Prepared by Tara Wood, February 2020

Contents

Introduction.....	1
Summary.....	1
Methods	1
Results	2
SUS Scores	2
Next Steps.....	3
Appendix.....	3
All SUS Scores	3
Activity Script and Instructions	4

Introduction

The SWAN UX team and the Discovery and User Experience Advisory Group (DUX) are conducting an evaluation of the current landscape of online catalog (OPAC) and discovery platforms.

In this portion of the evaluation, DUX members evaluated 9 discovery platforms using a System Usability Scale (SUS) and four tasks designed to evaluate usability around search and retrieval. These 9 platforms were selected out of a survey of 61 discovery platforms and narrowed down based on a set of inclusion and exclusion criteria.

Summary

The following platforms scored higher SUS scores than our current platform, Enterprise: BiblioCore, Aspen, Encore, Koha.

Methods

SUS is an industry standard scale used to reliably measure usability of products and services, including hardware, software, mobile devices, websites and applications. It consists of a 10-question survey of 5 positive and 5 negative statements using a 5-point Likert scale, from strongly agree to strongly disagree (see Appendix). These responses are then scored to generate the SUS score. ¹

¹ Usability.gov. System Usability Scale (SUS). <https://www.usability.gov/how-to-and-tools/methods/system-usability-scale.html>

DUX participants completed the SUS for 2 catalogs, and they filled out an additional 3 questions comparing the catalog they evaluated with Enterprise. These questions were not included in the final SUS score, but they were used as another metric to compare systems.

The SUS scores were generated using the following steps:

1. Participants responses were assigned a point value of 0-4, with 4 points assigned to the most positive responses.
 - a. Statements the participants strongly agreed with were give a value of 5 points, and statements participants strongly disagreed with were given 1 point.
 - b. For odd numbered statements (positive statements), 1 point was subtracted from the point value.
 - c. For even numbered statements (negative statements), the point value was subtracted from 5.
2. These adjusted values were then added and multiplied by 2.5 for a SUS score with a range of 0-100.

Participants

18 members of DUX participated in the activity. 3 SWAN staff members also participated, but their scores were excluded from analysis.

Results

SUS Scores

Multiple platforms were evaluated by multiple people, so each platform had several different SUS scores assigned. To compare the platforms, the average, median, and average scores with high and low values excluded were calculated.

Platform	Average SUS Score (low and high scores excluded)	Median SUS Score	Average SUS Score
BiblioCore	80.8	77.5	73.0
Aspen	73.8	73.8	66.9
Koha	62.5	62.5	63.1
Encore	60.0	60.0	69.2
Enterprise	56.3	56.3	54.4
Evergreen	50.0	50.0	54.4
Polaris	48.8	48.8	48.8
SearchIt	43.8	43.8	43.8
WorldCat	17.5	18.8	24.4

In each metric, the platforms that scored above Enterprise were BiblioCore, Encore, Aspen, and Koha.

In interpreting these scores, it is important to note that these platforms were analyzed using a narrow set of tasks. Other essential features including account features, accessibility, security, eResource integration, support, and flexibility in customizing the system for our consortium were not evaluated in this activity. Also, the scores should not be seen as a “grade” or percentile rank.

We should not necessarily conclude that the highest-scoring platform is “the best” as there are many other factors to further assess. However, we can reasonably conclude that those platforms that did not score higher than our current system on essential search tasks are not worth the time and resources that further investigation will require.

Next Steps

The final phase of the Discovery Platform Evaluation is an analysis of the three discovery platforms compatible with our current ILS--Enterprise, BiblioCore, and Aspen— using a weighted matrix of 200 features identified by the Discovery and User Experience Group (DUX) and SWAN staff.

SWAN worked with DUX staff to assign priority rankings for public-facing features, and SWAN assigned priority rankings for administration and security features based on the following scale:

- 0 - Not important at all
- 1 - Of little importance
- 2 - Of average importance
- 3 - Very important
- 4 - Absolutely essential

SWAN staff, working with the vendors for these three platforms, will assign a score for each feature, based on if the platform meets, doesn't meet, or "sort of meets" the requirement:

- 0 - Not present or unknown
- 1 - Future release
- 2 - Partial functionality
- 3 - Full functionality

The weight and score will be multiplied, resulting in a weighted score for each feature and each discovery platform. These scores will provide a structure to conversations about the future of our discovery platform. The highest score shouldn't necessarily be considered "the best," but the scores allow SWAN and our member libraries to more easily compare and contrast features available in each platform.

While Encore and Koha also scored high in this activity, the use of these platforms require an ILS migration. To secure the cooperation needed from vendors to complete an analysis of these platforms, SWAN would need to demonstrate that we are seriously considering moving to those ILSs within the next two years. SWAN recommends completing this analysis with the platforms compatible with SirsiDynix Symphony, then evaluating these additional discovery platforms if the SWAN membership investigates an ILS migration.

Appendix

All SUS Scores

Participant	Platform	SUS Score
1	Aspen	42.5
11	Aspen	70
14	Aspen	77.5
15	Aspen	77.5
2	BiblioCore	30
5	BiblioCore	92.5
10	BiblioCore	77.5
15	BiblioCore	72.5

17	BiblioCore	92.5
6	Encore	57.5
9	Encore	60
16	Encore	90
4	Enterprise	62.5
8	Enterprise	77.5
11	Enterprise	50
17	Enterprise	27.5
5	Evergreen	45
7	Evergreen	47.5
12	Evergreen	52.5
18	Evergreen	72.5
4	Koha	67.5
6	Koha	57.5
10	Koha	40
13	Koha	87.5
2	Polaris	65
3	Polaris	72.5
12	Polaris	25
18	Polaris	32.5
1	SearchIt	45
8	SearchIt	55
13	SearchIt	42.5
14	SearchIt	32.5
3	WorldCat	60
7	WorldCat	20
9	WorldCat	17.5
16	WorldCat	0

Activity Script and Instructions

Introduction

The SWAN UX team and the Discovery and User Experience Advisory Group (DUX) are conducting an evaluation of the current landscape of online catalog (OPAC) and discovery platforms. The goal of this evaluation is to establish a shared understanding of the options available to our consortium and determine the future direction of our online catalog.

In this activity, you will complete a set of core search tasks using two of nine different discovery platforms. Then, you will rate your experience with the catalogs using a System Usability Scale (SUS). SUS is an industry standard scale used to reliably measure usability of products and services, including hardware, software, mobile devices, websites and applications.

Scenario

You are a librarian helping patrons at a public service desk. You have the following tasks during your day – try to complete these tasks on the assigned catalog.

Tasks

You may not be able to find some items in the catalog, and that's okay. A clear indication that you should try another tool or tactic is just as important as being able to find an item.

Task 1

A patron wants all the Harry Potter books in the series. They're hoping to get them all today, so they'd like to know what is on your shelf now and what the call numbers are.

Task 2

A patron is at the OPAC and they want to place a hold for themselves. They're looking for The Wife, the TV show and the Office Season 5 on DVD. (Relevancy, Format Selection, Clarity of hold placement)

Task 3

You have a patron at the OPAC station who is just not sure what to get. They like cozy mysteries and movies and tv shows that aren't too violent. What recommendations do you have? (use the catalog to look at the readers advisory options available)

Task 4

You're preparing for a book club. You want to see how many copies of Where the Crawdads Sing are in the system and how many are at your library in book, audiobook, and downloadable formats. (toggling between results for system and individual library)

Evaluate Your Search Experience (A)

After completing these tasks, fill out the System Usability Scale.

What platform did you use?

Rate the following from 1 (Strongly Agree) to 5 (Strongly Disagree):

Question	Strongly Agree			Strongly Disagree	
	1	2	3	4	5
1. I think that I would like to use this system frequently.					
2. I found the system unnecessarily complex.					
3. I thought the system was easy to use.					
4. I think that I would need the support of a technical person to be able to use this system.					
5. I found the various functions in this system were well integrated.					
6. I thought there was too much inconsistency in this system.					

7.	I would imagine that most people would learn to use this system very quickly.					
8.	I found the system very cumbersome to use.					
9.	I felt very confident using the system.					
10.	I needed to learn a lot of things before I could get going with this system.					

Finally, rate the following from 1 (Strongly Agree) to 5 (Strongly Disagree)

Question	Strongly Agree			Strongly Disagree	
	1	2	3	4	5
1. I think that most patrons would learn to use this system more quickly than Enterprise.					
2. I thought the system was easier to use than Enterprise.					
3. I felt more confident in the relevancy of search results in the system compared to Enterprise.					

Evaluate Your Search Experience (B)

After completing these tasks, fill out the System Usability Scale.

What platform did you use?

Rate the following from 1 (Strongly Agree) to 5 (Strongly Disagree):

Question	Strongly Agree			Strongly Disagree	
	1	2	3	4	5
1. I think that I would like to use this system frequently.					
2. I found the system unnecessarily complex.					
3. I thought the system was easy to use.					
4. I think that I would need the support of a technical person to be able to use this system.					
5. I found the various functions in this system were well integrated.					
6. I thought there was too much inconsistency in this system.					
7. I would imagine that most people would learn to use this system very quickly.					
8. I found the system very cumbersome to use.					

9.	I felt very confident using the system.					
10.	I needed to learn a lot of things before I could get going with this system.					

Finally, rate the following from 1 (Strongly Agree) to 5 (Strongly Disagree)

Question	Strongly Agree			Strongly Disagree	
	1	2	3	4	5
1. I think that most patrons would learn to use this system more quickly than Enterprise.					
2. I thought the system was easier to use than Enterprise.					
3. I felt more confident in the relevancy of search results in the system compared to Enterprise.					

Platforms and Example Catalogs

Aspen

- Example catalog: http://catalog2.aspenca.com/?test_servername=akron.catalog.info

BiblioCore

- Example catalog: <https://marinet.bibliocommons.com/>

Encore

- Example catalog (design): <https://browse.nypl.org/iii/encore/search?lang=eng>
- Example catalog (consortium):
https://search.prairiecat.info/iii/encore/search/C_Scats::_Orighresult?lang=eng&suite=def&libnid=43

Enterprise

- Example catalog: https://catalog.swanlibraries.net/client/en_US/rgs

Evergreen OPAC

- Example catalog (design): <https://aadl.org/>
- Example catalog (consortium): <https://cool-cat.org/eg/opac/home>

Koha OPAC

- Example catalog: <https://catalog.cin.bywatersolutions.com/>

Polaris Discovery

- Example catalog: <https://www.epl.org/>

SearchIt/Verso

- Example catalog (individual library): <https://winf.agverso.com/home?cid=winf&lid=winf>
- Example catalog (consortium): <https://findmoreillinois.org/>

WorldCat

- Example catalog: <https://depaul.on.worldcat.org/>
- Example catalog: <https://stcharleslibrary.on.worldcat.org/discovery>