

11-9-2013

# Incorporating Usability into the Database Review Process: New Lessons and Possibilities

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## Recommended Citation

Barnes, Ilana R., "Incorporating Usability into the Database Review Process: New Lessons and Possibilities" (2013). *Libraries Faculty and Staff Presentations*. Paper 43.

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# INCORPORATING USABILITY INTO THE DATABASE REVIEW PROCESS:

New Lessons and Opportunities

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# OUTLINE

Problem Statement

The Project

Results

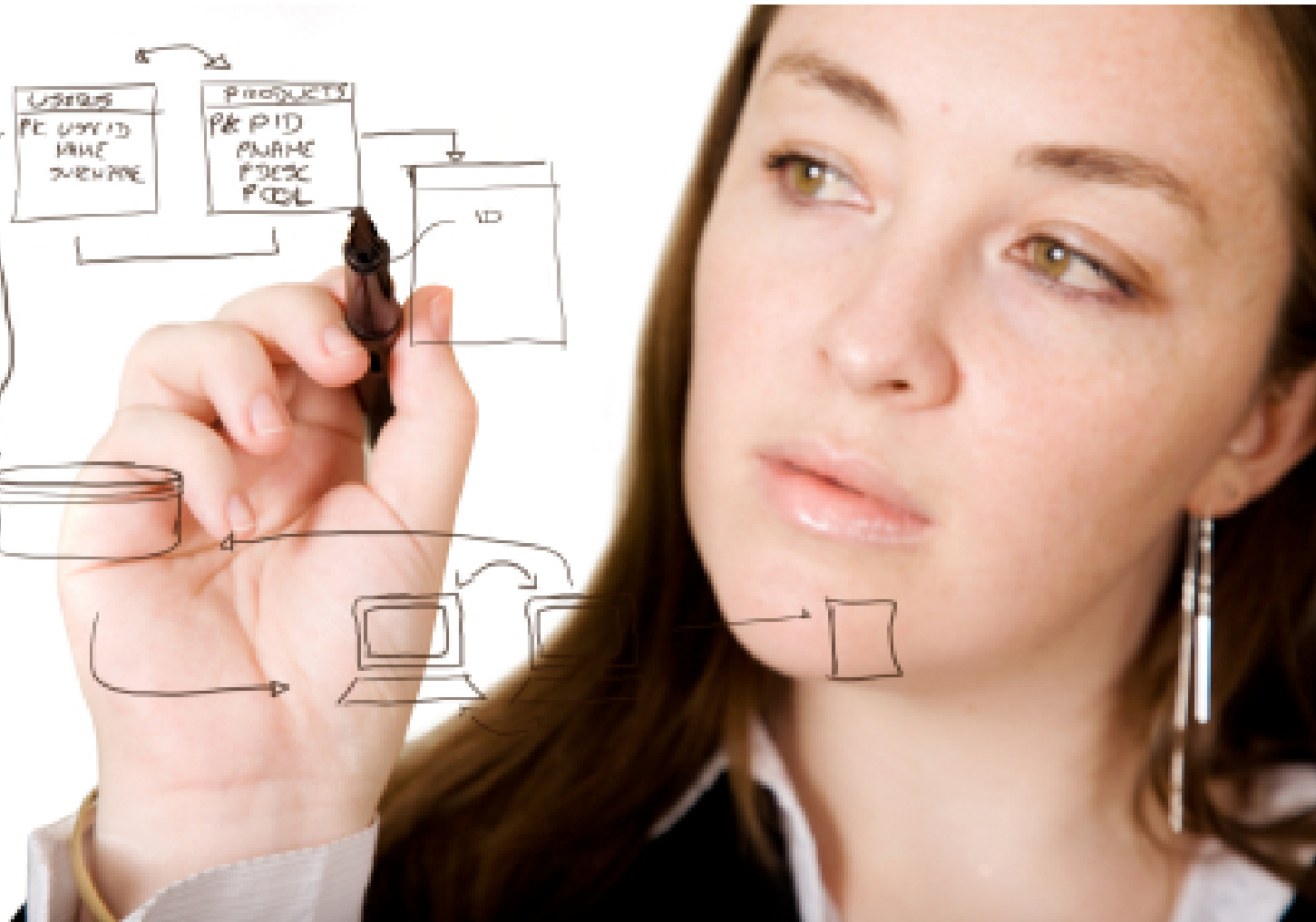
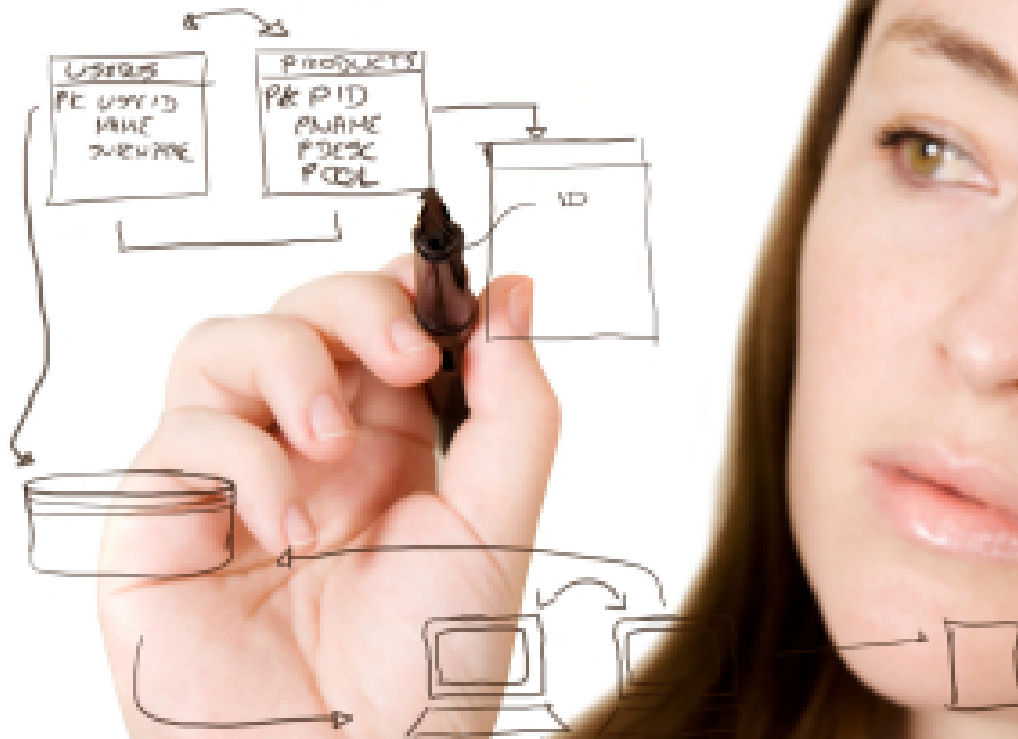
- Satisfaction Survey
- Heuristic Reviews

Lessons, Opportunities

Future Directions







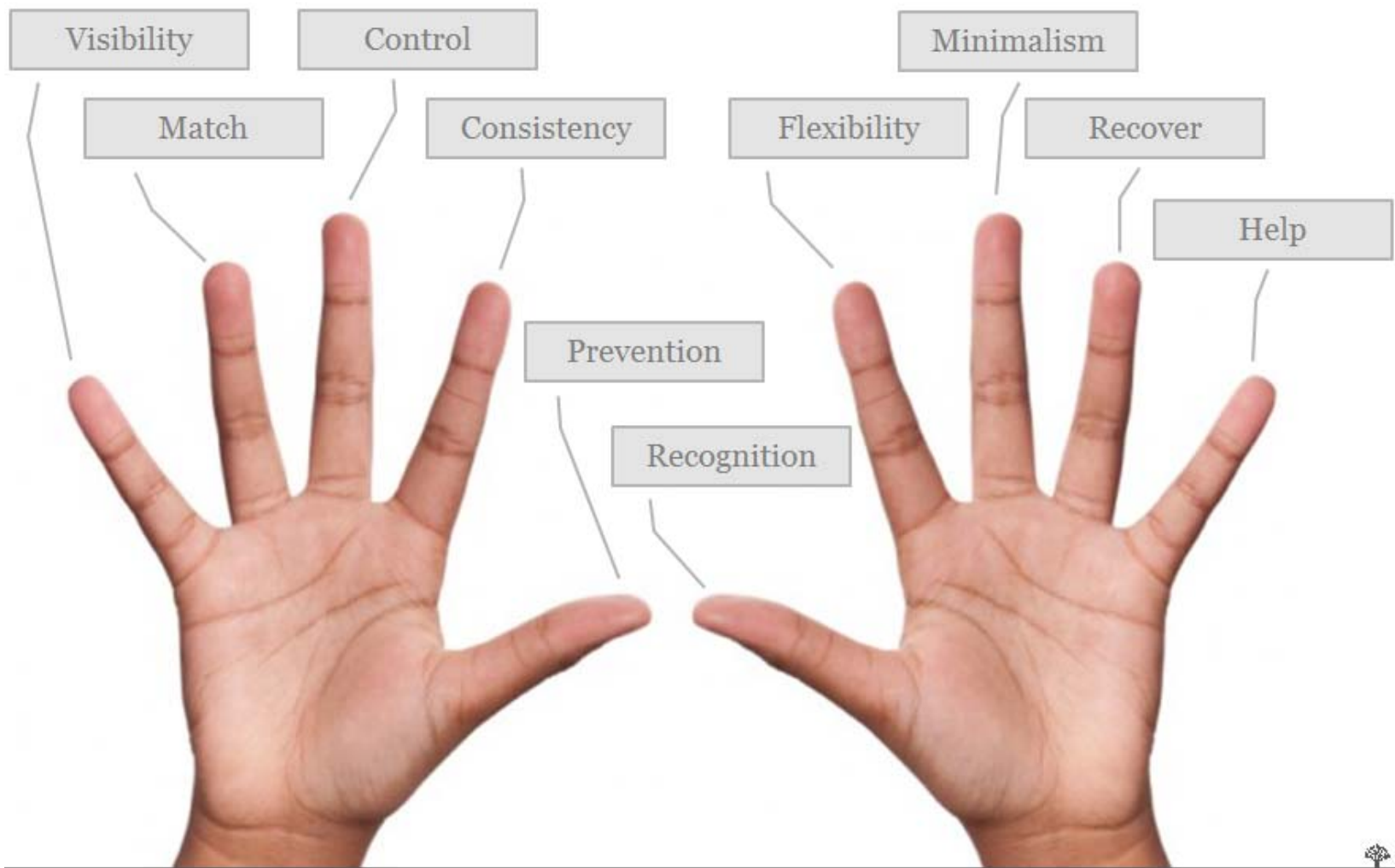
# PROBLEM STATEMENT

How can we **better record usability errors** in vendor products to **communicate those findings back** to vendors and more formally incorporate usability into our collection assessments?

# THE PROJECT

## Database Reviews 2013

- Yearly (Summer project) on a three year rotation
- ~ 100 databases reviewed each year (300 total)
- Each subject librarian reviews 1-8 databases
- Usage, audience, content, cost per use
- Certain information needed for discontinue decision





# THE PROJECT

## Database Usability Heuristic Form

- Instructions to orient researching usability
- 8 sections with 1-4 likert questions and room for comment at the end
- Required for all database reviews by Associate Dean

Satisfaction Survey- how they liked the process, the form, etc.

IRB-approved

# DATABASE USABILITY HEURISTIC REVIEW

## Database Usability Heuristic Review

Database being reviewed: \_\_\_\_\_

### Purpose of Research

The objective of this study is to examine the impact of incorporating user experience study methods into library database purchase and renewal. It focuses on introducing a relatively standard usability concept (heuristic evaluation) into an existing yearly electronic resource evaluation process at Purdue. This study involves introducing more user experience parameters into process. This project could contribute to our internal process for database renewal and selection in the future at the libraries. Please fill out this form to the best of your ability.

### Directions:

1. Review the information goals you have provided on the data resource. What is the expected user? Faculty from a specific department? Students? Staff?
2. Try a simple search in the product. As you go, write down any issues you find and their severity.
3. Observe the navigation of the site. Try a couple of links to observe consistency and path. As you go, write down any issues you find and their severity.
4. Try something incorrect in the database, such as group of keywords that have no effect or a link that is not on our access area. What happens? Does it prevent your errors? As you go, write down any issues you find and their severity.
5. Observe if there is help or documentation provided. As you go, write down any issues you find and their severity.
6. Observe if the system is easy to learn for your expected users. As you go, write down any issues you find and their severity.
7. Observe: Is the system easy to use? Is the design aesthetically pleasing and clear? As you go, write down any issues you find and their severity.
8. Fill out the questionnaire on the page by putting x in the square the match your feelings about the systems. As you go, write down any issues you find and their severity.
9. Comment on the average usability of the product as you have surmised from doing the evaluation.
10. After you have finished your database review, please fill out this survey your experience.

Example.

		X					
N/A	1	2	3	4	5	6	

### 1. Visibility of System Status

The database keeps the user informed through constructive, appropriate and timely feedback.

N/A	1	2	3	4	5	6	

The database responds to the user-initiated actions. There are no surprised actions by the site or tedious data entry sequences.

N/A	1	2	3	4	5	6	

### 2. Match Between the System and the Real World

Language usage in terms of phrases, symbols and concepts is similar to that of users in their day-to-day environment.

N/A	1	2	3	4	5	6	

### 4. Consistency and Standards

The same concepts, word, symbols, situations or actions refer to the same thing.

N/A	1	2	3	4	5	6	

Common platform standards are followed.

N/A	1	2	3	4	5	6	

# DATABASE USABILITY HEURISTIC REVIEW

## 5. Error Prevention

The database is designed in such a way that the users cannot easily make serious errors.

N/A	1	2	3	4	5	6	

When a user makes an error, the database gives the appropriate message.

N/A	1	2	3	4	5	6	

## 6. Recognition Rather than Recall

Objects to be manipulated, options for selection, and actions to be taken are visible.

N/A	1	2	3	4	5	6	

The user does not need to recall information from one part of a dialogue to another.

N/A	1	2	3	4	5	6	

Instructions on how to use the system are visible or easily retrievable whenever appropriate.

N/A	1	2	3	4	5	6	

Displays are simple and multiple page displays are minimized.

N/A	1	2	3	4	5	6	

## 7. Flexibility and Ease of Use

The database caters for different levels of users, from novice to expert

N/A	1	2	3	4	5	6	

Shortcuts or accelerators, unseen by novice users, are provided to speed up interaction and task completion by frequent users.

N/A	1	2	3	4	5	6	

## 8. Aesthetic and Minimalist Design

Site dialogues do not contain irrelevant or rarely needed information, which could distract users.

N/A	1	2	3	4	5	6	

## 9. Help Users Recognize, Diagnose, and Recover from Errors

Error messages are expressed in plain language.

N/A	1	2	3	4	5	6	

Error messages define problems precisely and give quick, simple, constructive, specific instructions for recovery.

N/A	1	2	3	4	5	6	

If a typed command results in an error, users need not retype the entire command, but only the faulty part.

N/A	1	2	3	4	5	6	

Comments on usability of product:

Does the **incorporation of heuristic reviews** affect the database review process?

- Is it redundant with other parts of the database evaluation process?
- Is it perceived as valuable?

**37 databases**

**8 librarians**

# RESULTS- SATISFACTION SURVEYS

Overall, how much impact did the Database Usability Heuristic Review have on your final selection decision?

	Response	%
No Impact	7	88%
Some Impact	1	13%
Highly Impact	0	0%
Total	8	100%

**“Usability is seldom a determining factor.** We might complain to the vendor or ask for changes for usability but unless a database is completely unusable, I don't think it would affect retention.”

**“The database that I am reviewing is core to the research done in a department.** The current product is well designed. I didn't need the heuristic review to realize that.”

**“I completed the database review form prior to the heuristic review** so felt that I had sufficient information to make a decision.”

**“The deciding factor is the importance of the content.** The interface has zero influence on the decision to keep these databases.”

# RESULTS- SATISFACTION SURVEYS

Overall, did you find the Database Usability Heuristic Review redundant with other parts of the database review form? Why or why not?

	Response	%
Yes	4	50%
No	4	50%
Total	8	100%

“We **already have to consider whether and how users are learning the database** in the database review.”

“We did already evaluate the "quality of the product" in the database report.”

“The database review asks for **need for instruction and access to help**, which are also covered in the heuristic review, although in different ways.”

“It asks **different questions** than the database review form.”

“The questions were focused on usability of the interface not on the content and cost of the database.”

“I think **some of these questions are worth asking** but they could be asked more effectively and efficiently.”

# RESULTS- SATISFACTION SURVEYS

Overall, did you find the Database Usability Heuristic Review easy to use? Why or why not?

	Response	%
Yes	8	100%
No	0	0%
Total	8	100%

“The content was easy to use, but the formatting was not. The redundant use of the likert scale over and over had the effect of making it hard to read. The short answer questions part also became difficult to navigate after 4 or 5 of the questions had been answered.”

“Some of the requested actions are not very well described so I was not sure how to answer the questions.”

“The form itself was easy to use, the instructions did not match the work to be done on the form.”

“Overall, yes. Some of the statements were more challenging to evaluate than others, however. The "common platform standards" line stood out to me in particular. Many of us may not be aware of such standards...?”



# RESULTS- SATISFACTION SURVEYS

Overall, did you feel that the Database Usability Heuristic Review should be done as part of the database reviews every year? Why or why not?

	Response	%
Yes	2	25%
No	6	75%
Total	8	100%

“It could be done yearly for **databases that are not on large platforms**”

“Not sure if this exact form/process is the most effective way, **but something like it - yes.**”

“It did not add to the decision making process. **One or 2 questions from this added** to the regular review might be good.”

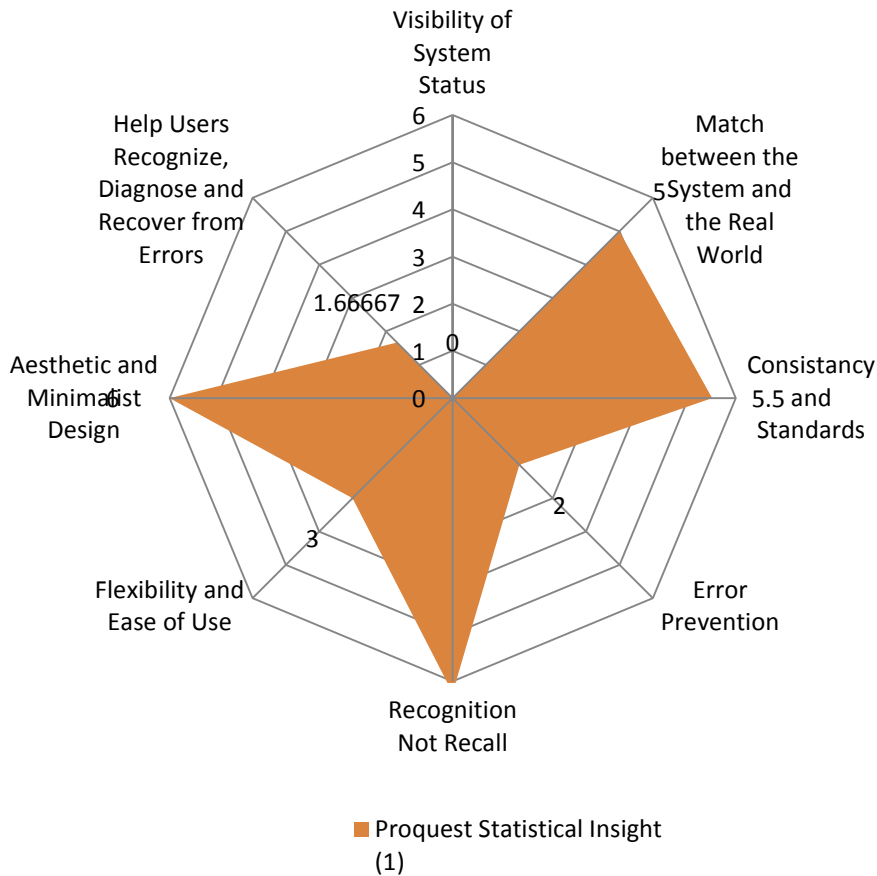
It would be useful in the case of a **database that is really difficult to use or inappropriate for the intended audience**, otherwise, not so much.

“A heuristic review is likely to be more helpful when there is a **new interface**. Otherwise we've all long since learned to overlook, or adapt to any quirks of a given database interface.”

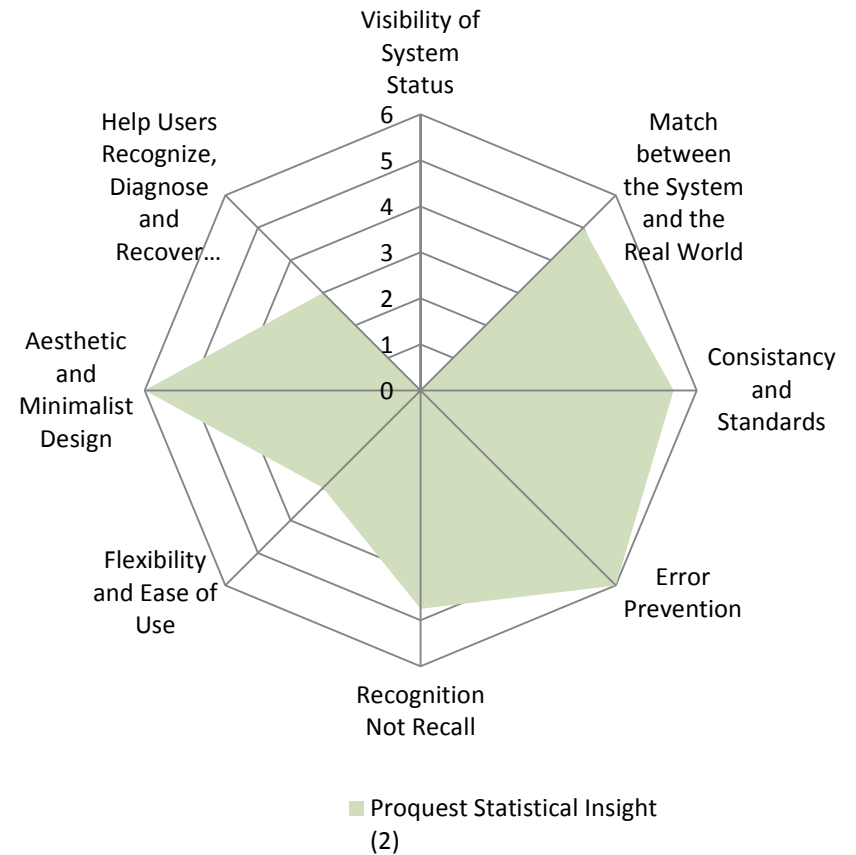
“I think some of these **questions are worth asking** but they could be asked more **effectively and efficiently.**”

# RESULTS- HEURISTIC REVIEWS

## Proquest Statistical Insight (1)

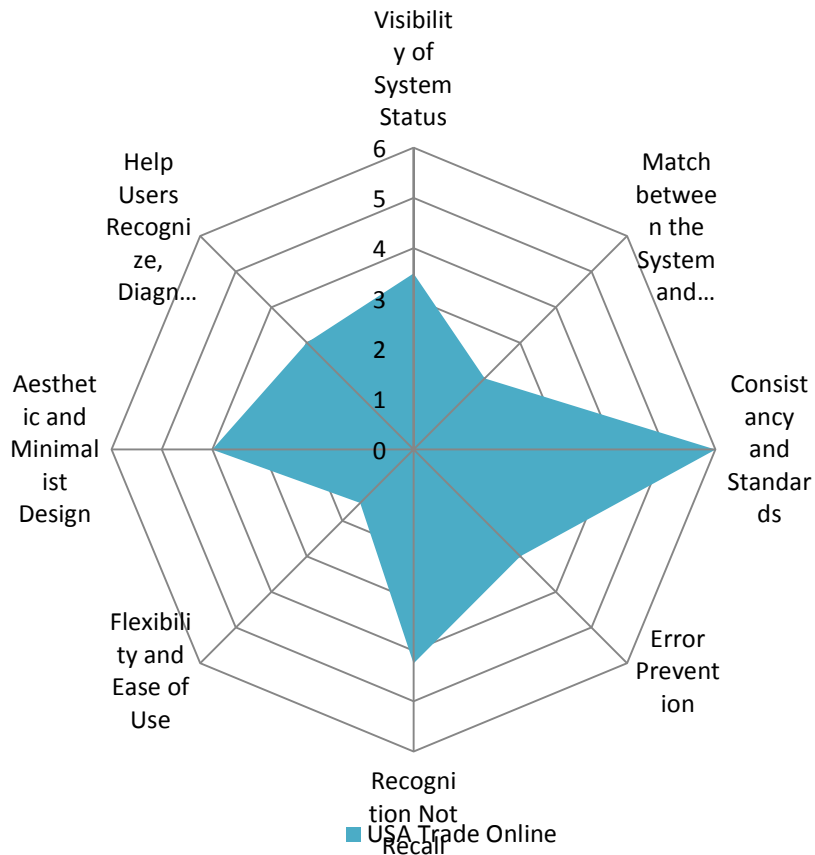


## Proquest Statistical Insight (2)

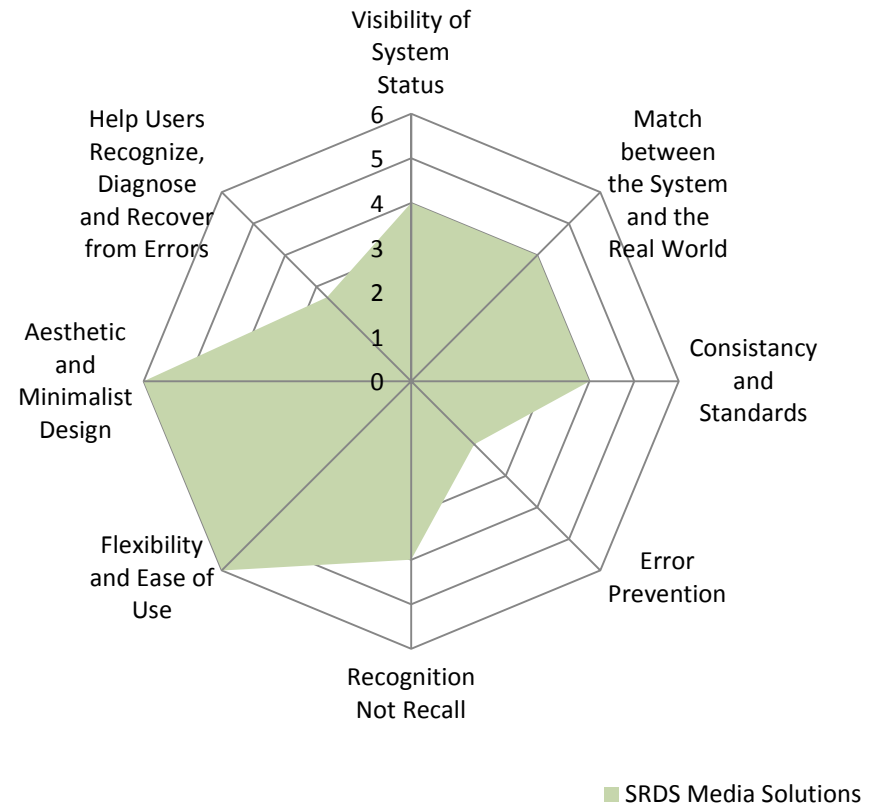


# RESULTS- HEURISTIC REVIEWS

## USA Trade Online



## SRDS Media Solutions



# LESSONS

- Communication is key.
- Busy work vs. deeper dive vs. path of least resistance.
- Be aware of project deadlines versus real deadlines.
- Heuristic reviews might work better as a tool than a requirement.

# OPPORTUNITIES

- New ways to visualize usability
- Recording of errors- 37 heuristic reviews
  - Could be useful as a jumping off point of discussing usability across products
- What's the lowest an interface can get on DUHR before it's too low?
- New possibilities for expert feedback

# FUTURE DIRECTIONS

- Look into implementation into new database acquisition, database renewals, borderline cases
- Communicate findings to stakeholders
- Hold workshops and trainings on heuristic reviews for collection development

THANK YOU!

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