During Summer 2016, Imperial College London’s Library Information Systems team ran a round of user experience research into the information-seeking behaviour of undergraduate and postgraduate students with a specific focus on the use of the library catalogue and discovery interface. The purpose of the work was to understand user behaviours and preferences to target development of practical improvements to the Library Search interface.
UX Research Summary

**Resources investment.**
Library Services invest fund, time and staff efforts to the UX Library Search research objectives.

**Iterative approach to UX research.**
The UX team looked at data from previous UX research to inform the design the new UX study.

**Review of UX methods.**
Based on the research objectives, a review of UX methods for data collection was done to help with selection.

**Grounded Theory method.** We chose the constructivist approach to grounded theory as our guide for data analysis.

**Research evaluation and reflection.**
At the end of the research we took time to revisit our research approach and methods.

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**Research Objectives**

- **Review previous UX research**
  - Review previous UX rounds and follow-up on areas requiring deeper investigation.

- **Iterative improvement**
  - Expand on previous research by studying users from a diverse sample in terms of subject/levels.

- **Focus on info-seeking behaviour**
  - Understand how Library Search and the Library fit into our users’ information-seeking behaviour.

- **Support new Primo UI launch**
  - Compare the existing Primo UI with Ex Libris’s newly-developed (Summer 2016) Primo UI.

- **Staff development**
  - Involve the Primo Forum group in UX testing to develop further UX skills and data analysis skills.
Research Questions

1. What are the information-seeking behaviours and needs of undergraduates compared to those of postgraduates?

2. What is the role and purpose of Library Search in information-seeking?

3. How does the existing Primo UI compare with ExLibris’ new Angular.js-based UI?

4. How do users get to Library Search as a source and how do they use it?

5. How do users approach Document Delivery as a service?
**Research Procedures**

**UX research team:**
The core UX research team is made up of the Library Information Systems team. We jointly work with the Primo Forum team; a working group made up of several members of different library teams.

**Research sample:**
Based on the recommendations of previous UX research, we selected users from a wider range of disciplinary backgrounds and education levels. Our sample consisted of 3 UG and 2 PG.

**Planning the UX research:**
A list of tasks (link attached) was made during the planning stage. All tasks had name and status against each item to show progress.

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Data Collection Methods

It was fundamental from the beginning of this UX study to carefully select the data collection techniques and methods that would enable us to answer our research questions. We agreed that the research had to be a qualitative study because we wanted to get a deep understanding of our users.

Interviews
Semi-structured interviews with think-aloud technique was the core tools of our UX study.

Comparative testing
Comparative testing to evaluate the perception of Library Search in comparison to the new-UI Primo user interface.

Tasks analysis
Example searches to capture the thoughts and feelings of participants as they perform actions.
We chose the constructivist approach to grounded theory as our guide for data analysis as we wanted interpretations to be continually derived from the raw quantitative data collected. We agreed those involved with data analysis would read about the chosen methodology, support each other’s learning, and complement each other’s understanding of the method.
Results: Core Findings

Perception of the library: Users are influenced by their perception of the library. There is a strong association between the library and Library Search as a physical space for print books.

Perception of the library within the university: Users assumed strong links between the library and their departments. Others saw the library as very separate to the rest of the university.

Perception of search: Users want to quickly find a shelf location or link to an online resource and then move on. Users tend to associate Library Search with the words ‘get’ and ‘getting’.

Directed search: Users spoke of Blackboard, online databases, Google Scholar, etc. as their starting point. There is a particular emphasis on reading lists and directed searches from lecturers, and librarians.

Relevance and keywords: The key factors that helped users decide on relevancy when looking for information are keyword, date and familiarity of resources based on specific authors and publishers.

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Research Evaluation

Research method and planning: Grounded theory provided a good structure for analysing a large quantity of qualitative data and fostered team in communication and collaboration, and in doing so the development of new ideas that would not have emerged otherwise.

Research sampling: We were concerned about bias in sampling for research participants. The participants were recruited only through Liaison Librarians. We want to think about how to eliminate bias as much as possible and to be more inclusive in our recruitment process.

Data analysis and findings: Given the amount of time and effort that this kind of research involves in term of data analysis and the time pressures imposed by term dates and implementations efforts, for future research we might want to scale back research in terms sample size, and data analysis team.
Ongoing UX Work

We are currently translating the findings into design solutions for the new Primo UI launch in February. We are working on including the following:

• Directed help boxes on the home page.
• Remove extraneous information from results page and make author and date labels more visible.
• Make classmark/location information more visible.
• Add link to department reading lists.

For the next round, we want to focus on a single user group to get a deeper insight into that user group’s behaviour and more obvious actionable outputs.

We also want to review the research methods and structure of the past few rounds. Investigating new research methods would help the team develop their research skills and provide fresh insights into user behaviour.

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Resources to Download

• Full Library Search UX report

• Appendices:
  – Participant info and consent form
  – Script for interviews and think-aloud exercise
  – UX tools and techniques review
  – Diagram of core categories
  – Grounded theory core categories and memos
  – Weekly UX research planning