UX in the Digital Library

A collaborative project between Loughborough University and Taylor & Francis Group

Tracy Roberts   Publishing Director, Journals (AHSS)
Stakeholders’ Viewpoint

The way students engage with scholarly content continues to evolve

Information Gap

How are students using the physical library and the library’s e-resources?

How are students using publisher sites?

Research problem

Understand the UX (User Experience) of PhD students when carrying out research
A theme of collaboration between Loughborough and Taylor & Francis has run throughout the project...

- Loughborough can provide access to PhD students...
- That Taylor & Francis would not otherwise be able to reach
- Taylor & Francis have set up the data collection tools...
- Loughborough mentors meet with students to maintain quality responses
- Loughborough can use the data to inform decisions around library resources...
- Taylor & Francis can use the data to guide website improvements...
Rich descriptions of the ‘user journey’…

How they start....
what worked well

any frustrations along the way
...the route they take...

...the resources they reach.

Following students’ progress over a period of time to see how research patterns change...

...over a range of subject areas
Requirements

Rich descriptions of the ‘user journey’...

- **Qualitative** data: participants to complete “diary” each month
- Detailed responses – by necessity from a smaller group of people
- Written responses each month to a series of regular questions
- Followed by an extended response to a topical opened-ended question

Following students’ progress over a period of time to see how research patterns change...

- **Longitudinal panel design**: initially for 8 months in one academic year
- ...over a range of subject areas
- **10 students** across Humanities, Social Sciences, Science & Technology
Requirements for data collection tool:

- **Easy** for students to use
- Responses **accessible** to Taylor & Francis staff throughout
- Completed responses **easily shared** with Loughborough

Chosen solution:

- **Online survey** via Survey Monkey
- Configured with **dedicated link** per student per month
- Survey allows students to **edit their “diary” throughout the month**

Pros and cons:

- **Convenient** place for students can save their progress...
- ...but discovered accessing from **different devices** resets response!
- Taylor & Francis and Loughborough can **monitor progress** mid-way
## First steps students take...

<table>
<thead>
<tr>
<th>Purpose of the research</th>
<th>Collaboration</th>
<th>Methodology</th>
<th>Results so far</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG</td>
<td>GS + PW</td>
<td>GS + PW</td>
<td>Mendeley</td>
</tr>
<tr>
<td>BL</td>
<td>Google Scholar</td>
<td>Google Scholar</td>
<td>Library Portal</td>
</tr>
<tr>
<td>CJ</td>
<td>GS + GB + PW</td>
<td>GS + LP</td>
<td>Library Portal</td>
</tr>
<tr>
<td>CM</td>
<td>Library Portal</td>
<td>Library Portal</td>
<td>Library Portal</td>
</tr>
<tr>
<td>CP</td>
<td>Colleague</td>
<td>Google Scholar</td>
<td></td>
</tr>
<tr>
<td>DB</td>
<td>Library Portal</td>
<td>Specific paper</td>
<td>Google</td>
</tr>
<tr>
<td>I I</td>
<td>Specific paper</td>
<td>Specific paper</td>
<td>Mendeley</td>
</tr>
<tr>
<td>JS</td>
<td>Google</td>
<td>Google Scholar</td>
<td>Hardcopy Book</td>
</tr>
<tr>
<td>NT</td>
<td>Specific paper</td>
<td>Specific paper</td>
<td>Google</td>
</tr>
<tr>
<td>ST</td>
<td>GS + PW + PM</td>
<td>PW + PM</td>
<td>GS + PW + PM</td>
</tr>
</tbody>
</table>
### First steps students take...

<table>
<thead>
<tr>
<th></th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Scholar</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>Publisher Website</td>
<td>☢️</td>
<td>☢️ number</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>Mendeley</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>Library Portal</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>Google Books</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>Asked a colleague</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>Specific paper</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>Google</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>Hardcopy Book</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
<tr>
<td>PubMed / MedLine</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
<td>☢️</td>
</tr>
</tbody>
</table>
### First steps students take...

<table>
<thead>
<tr>
<th></th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Scholar</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td></td>
</tr>
<tr>
<td>Publisher Website</td>
<td>⬤</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mendeley</td>
<td></td>
<td></td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Library Portal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google Books</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked a colleague</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardcopy Book</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PubMed / MedLine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nov</td>
<td>Dec</td>
<td>Jan</td>
<td>Feb</td>
</tr>
<tr>
<td>------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Google Scholar</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Publisher Website</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mendeley</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Library Portal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Google Books</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Asked a colleague</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Specific paper</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Google</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hardcopy Book</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PubMed / MedLine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### First steps students take...

<table>
<thead>
<tr>
<th></th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Scholar</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Publisher Website</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Mendeley</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library Portal</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Google Books</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked a colleague</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardcopy Book</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PubMed / MedLine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
First steps students take...

<table>
<thead>
<tr>
<th></th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Scholar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publisher Website</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mendeley</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library Portal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google Books</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked a colleague</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardcopy Book</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PubMed / MedLine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# First steps students take...

<table>
<thead>
<tr>
<th></th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Scholar</td>
<td>🔴</td>
<td>🔴</td>
<td>🔴</td>
<td>🔴</td>
</tr>
<tr>
<td>Publisher Website</td>
<td>🔴</td>
<td>🔴</td>
<td>🔴</td>
<td>🔴</td>
</tr>
<tr>
<td>Mendeley</td>
<td></td>
<td></td>
<td>🔵</td>
<td>🔴</td>
</tr>
<tr>
<td>Library Portal</td>
<td>🟠</td>
<td>🟠</td>
<td>🔴</td>
<td>🔴</td>
</tr>
<tr>
<td>Google Books</td>
<td>🟠</td>
<td>🟠</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked a colleague</td>
<td>🟠</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific paper</td>
<td>🔵</td>
<td>🔵</td>
<td>🔵</td>
<td>🔵</td>
</tr>
<tr>
<td>Google</td>
<td>💜</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardcover Book</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PubMed / Medline</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Route taken...

Google Scholar → Emerald Insight

“I saw that Emerald Insight suggests some other papers to download ‘Users who downloaded this article also downloaded:’ ”

Sports Marketing, 1st year student

Inter-Library Loan

“Using the inter-library loan system was generally my last resort because of the wait time in the book being delivered and the uncertainty of when it will actually be available”

Sports Sociology, 1st year student

Research Gate

“Author's making a version available on Research Gate (sometimes only on request... but most reply fairly quickly)”
What worked well?

- “Suggested articles were amazing.”
- Journal articles that we do not have access to but at least based on the abstract reading you know it will have very useful information.
- “Chatting on social media was amazing.”
- Library catalogue access indicator icon
- Videos convey the purpose of the research much better than the abstract

What frustrations did you encounter?

- Google Scholar is good for finding a specific paper.
- Keep finding articles that Alerts have missed.
- Missing pages from Google Books.
- The need for an inter-library loan – when you need access quickly.
How did you ensure you could find this information again later?
How important was the Library to you whilst looking for this information?

<table>
<thead>
<tr>
<th></th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How important was the Library to you whilst looking for this information?

<table>
<thead>
<tr>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How important was the Library to you whilst looking for this information?

- Nov
- Dec
- Jan
- Feb

- 0 – Not at all important
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 – Very important

Number of responses:
- Nov: 1
- Dec: 1
- Jan: 2
- Feb: 2

- Collaboration
- Methodology
- Results so far
- Purpose of the research
How important was the Library to you whilst looking for this information?

0 – Not at all important  1  2  3  4  5  6  7  8  9  10 – Very important

November: 1
December: 1
January: 1
February: 2
How important was the Library to you whilst looking for this information?

- **Nov**: 3
- **Dec**: 1
- **Jan**: 1
- **Feb**: 2

0 – Not at all important

1

2

3

4

5

6

7

8

9

10 – Very important
How important was the Library to you whilst looking for this information?

Overall

0 – Not at all important
1
2
3
4
5
6
7
8
9
10 – Very important

10
9
8
5
5
2
1
1
3
1
1
3
2
1
1
3
1
How important was the Library to you whilst looking for this information?

Overall

0 – Not at all important
1
2
3
4
5
6
7
8
9
10 – Very important

12
1
1
1
2
2
5
5
1
1
8
How important was the Library to you whilst looking for this information?

Overall

17
2
20
How important was the Library to you whilst looking for this information?

Overall

- Purpose of the research: 17
- Collaboration: 2
- Methodology: 20
- Results so far: 0
How important was the Library to you whilst looking for this information?

Overall

- Less important: 17
- More important: 20

Less important: 2

More important: 20
Information Seeking Skills

- Advice from Supervisors
- Fellow students support with Mendeley
- Library & Grad School workshops
- Email Alerts
- Appointment with Librarian
- Uncertain if using the best method

Purpose of the research

Collaboration

Methodology

Results so far
Information Seeking Skills

- Email Alerts
- Advice from Supervisors
- Fellow students support with Mendeley
- Appointment with Librarian

Uncertain if using the best method
Information Seeking Skills

- Uncertain if using the best method
- Email Alerts
- Advice from Supervisors
- Fellow students support with Mendeley
- Appointment with Librarian
- Library & Grad School workshops
Information Seeking Skills

- Uncertain if using the best method
- Advice from Supervisors
- Fellow students support with Mendeley
- Email Alerts
- Appointment with Librarian
- Library & Grad School workshops
### Summary of findings

#### First Steps
- **Wide variety** of initial sites
- **Google Scholar** and **Publisher platforms** initially popular

#### Evolution of First Steps
- Group A: hone in on **one site over time**
- Group B: **consistently use the same site**
- Group C: take **different approach each time**

#### Devices
- Laptops or **desktops**
- **Mobile devices** only mentioned once

#### Frustrations
- **Not having access** to relevant articles
- ‘**Missing**’ pages in Google Books that would otherwise be really convenient

#### Research Journey
- Although, it’s never a starting point, articles often downloaded from **Research Gate**

#### Finding information again later
- **Mendeley** and saving PDFs to the Hard Drive are most popular
Thank you

UX in the Digital Library

A collaborative project between Loughborough University and Taylor & Francis Group