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## ‘We don’t start with Library’: students interviewing students about using the Library website

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This paper covers two UX projects conducted at Manchester Metropolitan University Library in 2021 and 2022. Students were recruited to lead the projects. They designed questions and testing processes, with training and guidance from Library staff. Working with students presented challenges but was interesting and surprising. Different pages on the Library website were tested for their effectiveness at satisfying user tasks. Video interviews were used to gather the data. Students analysed results and presented these to Library staff. The research revealed that many students do not start their search for information on Library webpages, find them confusing and do not make use of guidance. Students also requested more personalisation.

### Background and context

The Library website at Manchester Metropolitan University has been subject to continual review for several years, for example see Walton (2018). I led a major review of the information architecture of the site in 2019 through a card sorting UX project. This allowed us to reorganise our pages into seven different groups, which were labelled by the 40 participants (23 staff and 17 students) in the study. This labelling then became the top navigation options across the site (see Dutta (2019) for more information on this study).

During the 2020 pandemic, we decided to migrate the Library website from ‘LibGuides’ and our own server to the University content management system (CMS), Drupal. Doing this meant that our site would now look like other University pages. Drupal is also optimised for mobile and includes enhanced accessibility features.

## How I understand UX

My own understanding of UX is based upon continual improvement of the Library website. At all times, we're trying to capture what people *do*, rather than what they think or what they say. We also combine UX with other methods, particularly Google analytics and webpage heatmaps. Our approach must be flexible and open to change – the process of doing UX often throws up lots of unexpected results and this can affect what decisions are made.

## Working with students on UX projects

From 2020 to 2022, we've worked with five different students. They gain valuable work experience, and we have extra staff resource.

Manchester Met has several different schemes which provide work experience for current students and recent graduates. There are graduate internship programmes (12 weeks, 35 hours per week, paid), RISE projects for current students (credits



based, unpaid), work-based learning projects for undergraduates (8 weeks, 7 hours per week, unpaid) and placements for MA students (2 weeks, 35 hours per week, unpaid).

For all the projects where we've worked with students, I have managed the day-to-day aspects of working with the student but have had manager support and help from other colleagues as required.

The table below shows a summary of all the different students I've worked with over the last three years. The projects discussed in this paper are starred.

<b>Date</b>	<b>University scheme</b>	<b>Paid or unpaid?</b>	<b>Actual projects worked on</b>	<b>Duration</b>
September 2020	Graduate internship	Paid	Competitor analysis and heuristic analysis of new website	12 weeks
April 2021	RISE placement	Unpaid	Card sort for Special Collections	4 weeks
*September 2021	Graduate internship	Paid	Subject guides: usability testing of specific pages	12 weeks
*April 2022	RISE placement	Unpaid	Finding information: usability testing of specific pages	6 weeks
*May 2022	MA Library and information management placement	Unpaid	Analysis of finding information project	2 weeks

## Video interviews

The card sorting project in 2019 involved in-person interviews. The participant was given the deck of 38 cards and the interviewer was present throughout but could not help with the actual sorting process, apart from to clarify any confusion about page title or function. The card sort was a hybrid of 'closed' and 'open': participants were required to define their own groups but had to make exactly six groups. Following

the sort, the participant was invited to make comments explaining their choices or asked to talk about what was difficult. Notes were made of these comments and written up, and considered when results were analysed. So the sessions were quite in-depth, taking up to 60 minutes on average, sometimes longer. However, by 2020, with the onset of the pandemic, doing any kind of in-person UX was not possible.

We switched to using MS Teams interviews, which could be recorded, transcribed and coded. For the coding, we used Excel, with questions in rows and participants in columns. We used a traffic light system to analyse whether the participant answered the question (green), struggled (amber), or really struggled (red). We then focused on the ‘reds’ and ‘ambers’ in terms of issues to take forward. For the results in this paper, I’ve used a mixture of comments that showcase the breadth of problems encountered.

As I have a background as a filmmaker, my approach in terms of analysis was essentially to make a film of what I considered to be the best/most salient bits of the recorded interviews. So I effectively conducted an edit, drawing out instances where people made interesting comments and threading them together so it felt like a narrative. These ‘highlights reels’, showing affinities between different students’ experiences of the website, were then shared with senior management teams, to gain buy-in to action decisions. All the research detailed in the ‘Findings’ section of this paper is based upon these recorded Teams interviews.

## Process for moderated video interviews

We first devised a ‘project brief’ which could be effectively used as a job description to give an interested student an idea of what they would be doing if they came to work with us. We then worked with other teams in the Library to assess which sections of the site to test. Our site is huge – almost 200 pages with even more underlying pages. So, we focused on specific areas that were being underused: subject guide pages for the first round of UX in 2021 and ‘finding information’ pages in 2022.

We have about 80 subject guides which detail specific information for each subject (for example, the relevant academic liaison librarian, databases, other help guides). Our ‘finding information’ pages deal with different information formats: books, journals, maps, images, company reports and so on.

Once the student had been recruited, we worked with them to devise a list of

questions or tasks which could be used to test the effectiveness of a page. Typically, this involved thinking about the user tasks associated with the page, along with the 'business goals'. Business goals are defined as being the key messages that 'we' (in this case, the Library service) want our users to understand. So, for example, for our page about the on-demand TV/radio service 'Box of Broadcasts', the user tasks section has the questions: What is Box of Broadcasts? How do I access it? How do I use it? Whereas the business goals are: we have access, you can search the archive and it's accessible in the UK only.

For example, one of our tasks related to the 'finding information' pages was:

*Your tutor has asked you to use an academic journal for one of your references. Find a page that gives you information regarding academic journals and search for one relating to your course.*

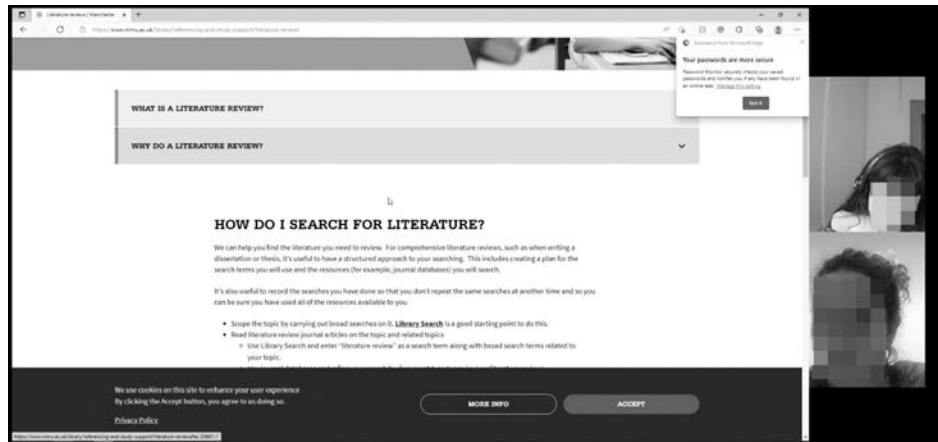
And this is an example question regarding the subject guides:

*What do you think of the overall aesthetic of the page (e.g. colours used, fonts, images, etc.)?*

Once the questions were finalised, we piloted the test by asking the student we were working with to go over the questions with a friend. Feedback was then given regarding the interview and questions were modified as necessary. The students were trained in terms of how to conduct the interviews. For example, they were asked to make it clear to their peers that the site was being tested, not them; there were no right or wrong answers. Prompting was allowed if it was felt that the user was not understanding the question. Each round of testing consisted of 10–15 interview questions, and interviews generally lasted 30–60 minutes.

We then recruited participants for testing, aiming for ten for each round. With hindsight, this was probably too many. Krug (2014, pp. 86–87) suggests that as few as three users is optimum, as you find most usability problems with this sample size, although he adds that it's important to test regularly. Similarly, Moran (2019) suggests five users. In future, I'll consider working with fewer users.

At first, we tried to recruit participants by sending details of the testing to academic colleagues, who then cascaded the recruitment text to their students. This was not a very successful approach, so we worked with our marketing officer to provide coffee and cake for students who took part. This was more successful but still meant that a lot of time was wasted trying to find students who would be willing to help.



*Figure 1* Screenshot from a video interview conducted on MS Teams (identities of interviewer and participant obscured).

For the final round of testing in 2022, we offered £25 High Street vouchers to students who took part. This was very successful and we were inundated with responses. We were able to pick students from different subjects and years of study, so that we could get a balanced pool in terms of subject diversity.

For the first round of testing, I personally conducted some interviews but, as we started to watch the results, I felt that it was better to allow the student to conduct the interviews. As they were less familiar with the site, this often led to more revealing answers from the interviewee.

Once all the interviews had been conducted, the results were analysed and presented back to relevant Library colleagues. Analysing the videos was extremely time-consuming and the student's placement often finished before this could be done. This is another reason why we should have recruited fewer participants.

## What works and what doesn't?

I strongly believe that working with the students meant that there was less bias in the interviews. Where a member of my team or I may have over-prompted for a result, we found that the students were happier to allow participants to wander around the site more, which ultimately meant that more interesting information was gleaned.

It was also fun and interesting for us, as a team, to work with students, just to

get an insight into how they thought about the site, what assumptions they made and so on.

Critically, working with the students meant that we could actually do these projects. While UX is written into my job description, it's not something that others in the Library service can always be involved in. Projects can be time-consuming, particularly around the recruitment of participants and subsequent analysis of data. Working with students on these projects gave us a valuable additional staff resource.

Finally, having the video evidence collected in this way, where we were able to show that different people exhibited similar behaviours, or got stuck on similar problems, was useful to motivate change.

Working with students does, however, present some challenges. Enthusiasm was often high, but it could tail off and it was sometimes difficult to keep the students motivated, particularly if they weren't being paid. Students were often late to meetings or would not attend at all. For placements which were on a short timeframe, it was also difficult to fully complete sections of a project. Some students were also a little shy, whether in terms of approaching other students to interview or indeed conducting the interviews themselves. Nevertheless, this was something we could work on together and it was positive to see students become more confident in terms of conducting interviews as their time with us went on.

Finally, it has been difficult to retain contact with many of the students. Several have now graduated and so no longer have access to their student email accounts, so I've been unable to reach them after their time with us finished. For example, I wanted to collect feedback from one student (who had done an excellent job of interviewing other students) to include in my UXLibs presentation and this chapter but had no way of contacting her. And in another case, a student delivered an excellent presentation on the project they'd been working on to a group of librarians, with several useful recommendations that could be made to the Library website, but the presentation was never shared with us and it hasn't been possible to reach the student over email since.

## Some feedback from our student workers

I asked a few of the students we've worked with to provide feedback on their work with us:

“One of the things I really liked about the project was how accessible the data collection was. Due to the Covid pandemic, data collection had to take place



virtually – this meant that we could be flexible, and participants seemed more comfortable as they were in their own homes.”

“The only improvement would be to have had the option for the exercise to take place in person, as sometimes it felt like participants were holding back answering questions or seemed like they were in a rush.”

“I think it was great and a good starter for my CV – I’ve had an interview today and they asked me about it!”

## Issues with the process

It became apparent when analysing the interviews that there were problems with the process we had chosen.

The questions we were asking of students were based upon the effectiveness of certain pages on the Library website. However, what we found quite quickly was that many of the interviewees found the questions difficult, not because they didn’t understand them or found the website difficult to navigate, but rather because they were confused as the questions we were asking them were not relevant to their tasks as users. For example, with this question:

*You have been struggling to find a specific online TV documentary that you need. How would you locate this documentary?*

Four of the ten students who were asked this question struggled to find the correct page which would allow them to search for TV documentaries. But it’s clear from the interviews that the reason for this is that they had never needed to find a TV documentary. So, in a sense, the question is irrelevant to their user needs.

The reasoning for having these generic questions was that I thought that all students would be able to pick up enough of a ‘scent’ while browsing the website to answer the questions. But it became clear that if a question was not aligned with the needs of the student being interviewed, it was sometimes difficult for them to arrive at the ‘correct’ page.

It was also clear that the method of interviewing students in a controlled situation, where they were being recorded, perhaps placed an undue stress upon the participants. Watching some of the interviews, it was clear that students felt they were being tested and they often looked worried or desperate to find the ‘right’ answer. Seeing some of this emotion was however quite helpful at times, as it

quickly showed how one missed button or line of information could send students down the wrong path.

## Some examples of our findings

Bearing in mind the above stated issues, a lot of the findings, and a lot of the issues I've since acted on, came up as 'accidents' within the process. We found out a lot of useful information by chance, as students talked their way through their actions and explained how they behaved when trying to find information.<sup>1</sup>

### *The Library website is NOT the start of the information-seeking journey*

We did not explicitly ask students to use the Library website, and so we found that their routes to start answering the questions were interesting.

Students frequently googled directly for the information required in the question, rather than first finding the Library website and then following navigation options from there. So, for example, one student stated that they would google the subject guide and then click on what they needed. We also found that students had



Figure 2 The 'MyMMU' website and the tile for 'Library', a common entry point to the Library website.

an established route to the Library website through their virtual learning environment (VLE), Moodle. As one student stated, they would visit 'MyMMU' (the app which allows sign-in to Moodle and other services) and then click on Library (see Figure 2).

### 1 A note on privacy, ethics, and consent

Written consent was obtained from all students to take part in the interviews and this consent extended to their responses being shared at conferences. But we did not explicitly obtain consent for responses to be published, so I have therefore paraphrased the students' actual responses in the cases described here so as not to compromise their identities.

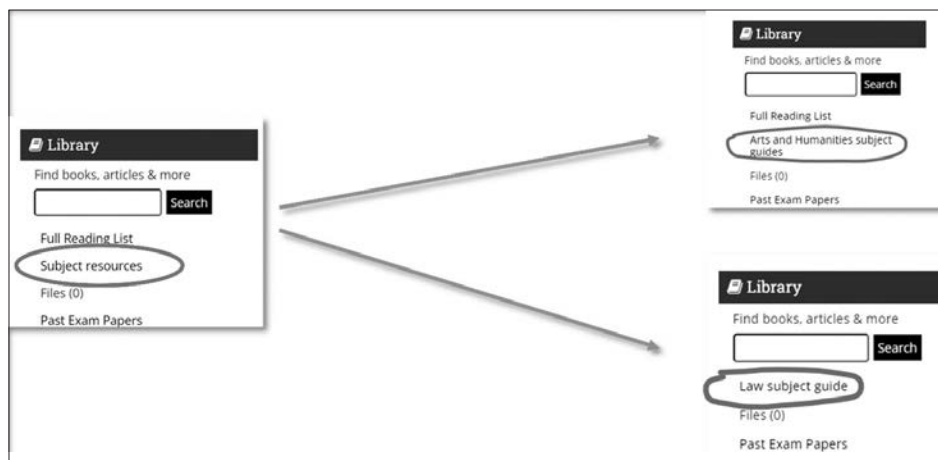
### *Greater personalisation with Moodle integrations*

As it became clear that Moodle was a very important route into the Library, I explored the possibility of providing a more personalised connection between Moodle subject areas and relevant Library content.

The Library area within Moodle consists of links to relevant reading lists, plus we were given space for one further link. This was generically titled 'subject resources' and was linked to our main index of all subject guides (approximately 80 different subjects).

Through analysis of referral traffic in Google analytics, it was possible to infer that about half of the people who landed on this index page did not progress any further. We surmised that this could be because they were unable to locate the actual subject from the long list and so dropped off.

We therefore decided to provide a more personalised link for students, to replace the 'subject resources' one. This was not possible in all cases, due to the way our Library subject guides did not always map directly to units as conceptualised by the curriculum department. But, if we were unable to provide a link to the direct page, we were usually able to provide a better link for the user, to their faculty level, so they at least had a shorter list to consult. In addition, the link text was updated, so that it matched the actual title on the page (see Figure 3).



*Figure 3* Screenshot showing the changes made within Moodle to provide a better user experience for students: links personalised and link text updated.

## Problems with Search boxes

Analysing the interviews gave us a lot of insight into issues with search boxes. ‘Search’ on our Library website is different to ‘Search’ on other comparable webpages, where it usually means a ‘site search’, i.e. it will locate different pages on that website. In contrast, on our Library website, ‘Search’ refers to ‘discovery’ and indexes only the subscribed information sources – books, articles etc. It became clear that ‘Search’ is a dominant behaviour for users seeking any information. We found that

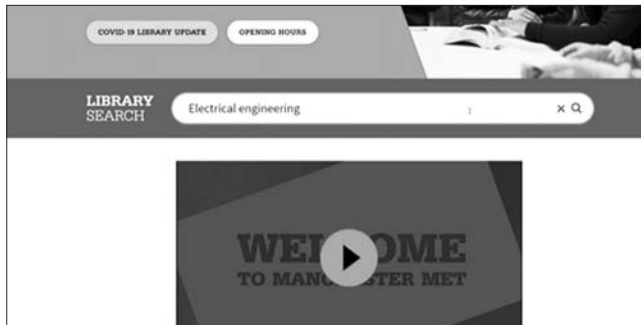


Figure 4 Screenshot from a video interview showing a student entering a search for their subject guide; this would not be a successful search as the subject guides are not indexed in our discovery system.

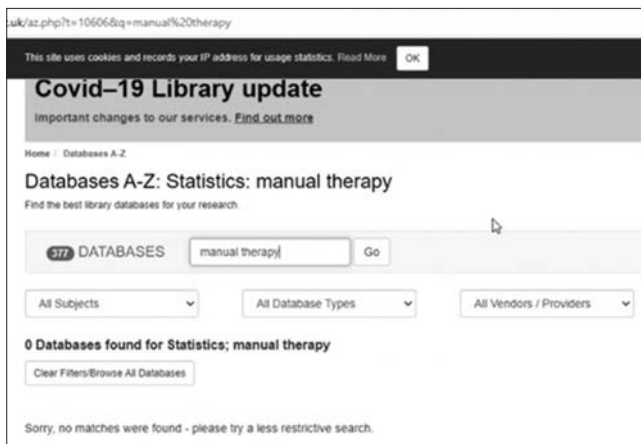


Figure 5 Screenshot from a video interview showing a student entering a search for a topic they are studying, but in a search box which indexes different databases only.

participants in our interviews were using our search box to look for information that was not actually indexed, and so they were not getting a useful answer. In the example shown in Figure 4, we can see that a student has searched for their subject guide using ‘Library Search’, but this would not actually bring up their subject guide. They would have a better chance at success if they used Google (although they would of course need to augment the search terms).

Due to limitations with our discovery system, supplied by a third party, we are unable to add all our Library website pages

to the search index. It would be possible to add an additional search box, but we've found in the past that two search boxes on the same page is confusing. Also, we are unable to restrict the search to just 'Library' pages – it would go through all University pages. After testing, it was decided this would only confuse students more.

In addition, we found that this problem was replicated with other search boxes on the site. For example, we found students entering keyword searches such as 'manual therapy' on our 'Databases A–Z' search, which only indexes different databases (see Figure 5).

At present, there is not a lot we can do to solve these issues, but it is useful to at least know that this is a problem and potentially a further area for subsequent research.

### *Clutter and overloaded pages*

The video interviews provided strong evidence of students struggling with overloaded and cluttered pages. A lot of library content is lists of information, but it became clear that this can be overwhelming for students. One stated that they struggled to find the time to go through all the information, even though they acknowledged that it was useful.

One way to avoid clutter is by using 'Contents' sections, making use of 'anchors' within the text. Figure 6 shows an example on one of our research pages: the different topics are listed in sections, but the user can also see all the other relevant content. So, we are now making more use of this feature, as a way of summarising content where there is a lot of detail.

<p><b>Introduction - <a href="#">Jump to section</a></b></p> <ul style="list-style-type: none"> <li>• What is Research Data?</li> <li>• What is Research Data Management?</li> <li>• Why manage Research Data?</li> <li>• Where can I get more support for RDM?</li> </ul>	<p><b>Legal and Ethical - <a href="#">Jump to section</a></b></p> <ul style="list-style-type: none"> <li>• Ethical approval</li> <li>• Data protection</li> </ul>
<p><b>Research Data Management Policy - <a href="#">Jump to section</a></b></p>	<p><b>Sensitive Data - <a href="#">Jump to section</a></b></p> <ul style="list-style-type: none"> <li>• Obtain consent</li> <li>• Secure storage and transfer</li> <li>• Encryption</li> <li>• Copyright</li> <li>• Video: Managing sensitive data</li> </ul>
<p><b>Data Management Plans - <a href="#">Jump to section</a></b></p> <ul style="list-style-type: none"> <li>• What is a Data Management Plan?</li> <li>• Funder policies</li> <li>• How do I get started writing a DMP?</li> <li>• What support can I get for my DMP?</li> <li>• Planning to share</li> <li>• Video: What is a Data Management Plan?</li> </ul>	<p><b>Store Data - <a href="#">Jump to section</a></b></p> <ul style="list-style-type: none"> <li>• OneDrive</li> <li>• Research Data Storage (RDS)</li> <li>• DropBox for Business</li> </ul>
<p><b>Collecting and Organising Data - <a href="#">Jump to section</a></b></p> <ul style="list-style-type: none"> <li>• File formats</li> <li>• File names and folder structures</li> <li>• Versioning</li> <li>• Documentation and metadata</li> <li>• Survey and interview tools</li> </ul>	

Figure 6 Section of a Research page from the Library website, where a 'Contents' feature has been used to aid navigation around a large amount of information.

### *Style issues: CTA banners*

In general, we received very good feedback on the new look and feel of the site. Students talked about how they liked that there was not too much text and said that the use of images was nice. Participants also found the site well-structured and clear.

However, we did also receive some negative feedback regarding the visual look of the site. We make extensive use around our site of ‘CTA banners’ (CTA is an acronym for ‘Call To Action’), which are bright strips with a clearly labelled button which prompts a user to act (see Figure 7).

A couple of interviewees commented that the colours were too bright, and one actually missed the CTA banner because they said it felt like an advertisement and they felt bombarded, therefore scrolled past it.



*Figure 7* A ‘CTA banner’ component from the Library website, designed to draw attention to a specific link; in this case, databases.

### *Accidental revelation: Chat widget*

None of the questions in either of our rounds of UX testing explicitly referred to a ‘Chat’ widget. But while going through the results of the pilot session, one of the students I was working with commented that it would be useful if there was a “little button on the side of the screen” that you could select to ask for help. This had been a well-used feature on our previous site, but we had not been able to carry it over to the new Drupal site. This discussion led me to restart the conversation around re-adding it and we eventually found a workaround with our central digital team which meant that it could be enabled (see Figure 8).

I’ve included this finding to emphasise three points:

- Some of the findings from UX are completely accidental – I did not ask for this information, but it came out anyway.
- Simply having a conversation with a student is invaluable.
- The information was disclosed by a student I was working with, rather than a student who was a participant in a UX study.



Figure 8 Screenshot from the Library website showing the addition of the Chat widget.

## Summary

Working with students as colleagues on UX projects is really useful. It is good to work with our end-users and remind ourselves of why we are doing this work in the first place. It's something I am committed to carrying on doing as I think it enhances our service.

The work is challenging. I think any kind of 'project' work is difficult in an HE environment, as it is hard to sustain interest and engagement over time.

To help with this issue, and partly inspired by the work being done by colleagues in the Academic Libraries North UX community of practice (see Alison Sharman's chapter in this book), I've recently established a UX working group within the Library. The group meets monthly and brings together different people who are collecting user feedback, so we can share findings and collaborate on bigger projects. I am also currently working with another intern, this time on a UX project not related to the website. Instead, we're investigating a 'successful' study space in the Library, to try to figure out why it works so well.

Five years ago, websites were a huge issue in libraries, and we had all sorts of problems with our site which meant that it became a full-time job for me. Now, with the migration to the central CMS, the job has changed. Edits to the website are more straightforward, but our web estate is bigger and publishing workflows are more time-consuming. I need a lot of support from my team when we need to edit

a lot of pages at the same time. I now spend more time dividing up work for others, quality checking, and requesting and chasing development tickets.

Through working on our UX projects, we can still see that students struggle with navigating all our content. Rethinking the different ways in which a page needs to work and experimenting with different structures is still a very complex issue.

Search has become even more of a primary activity in terms of information seeking, but we do still see people browsing and, most importantly of all, I think 'Ask' as a mode of help is rising. Many users are not prepared to trawl through a webpage looking for relevant information; they would rather ask a direct question using our 'Chat' widget (or via another means of contact, such as phoning, emailing or asking in person at the help desk).

A lot of my time now is spent configuring our enquiry features like Chat. And I anticipate that this element will change more over the next five years as Artificial Intelligence (AI) becomes more embedded and normalised.

## References and further reading

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