Snapshot

A cultural probe study exploring the research and information behaviour of postdocs and PhD students at the University of Cambridge

THE FUTURELIB PROGRAMME

Futurelib is an innovation programme exploring the future role of academic libraries within the University of Cambridge. It employs ethnographic research methods and human-centred design techniques to examine the current user experience (UX) of libraries and draws on the skills of librarians from around the institution to test new service concepts. It is funded by the University Library. The programme is managed by Andy Priestner and led by Sue Mehrer, Deputy Librarian, Cambridge University Library.

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Research design and findings
Andy Priestner, David Marshall

Futurelib Programme
Sue Mehrer, Andy Priestner, David Marshall
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1. INTRODUCTION

The Snapshot research project was devised by the Futurelib Programme team and conducted between May and July 2016 with a sample of postdoctoral researchers and PhD students based at the University of Cambridge.

1.1 Postdoctoral researchers

Postdoctoral researchers play a vital role in the Cambridge academic community. Several previous Futurelib research projects highlighted that postdoctoral researchers (hereafter ‘postdocs’) had very particular and different needs and routines to other groups, which would clearly benefit from further detailed exploration. This was the starting point of the Snapshot project, which specifically hoped to gain greater insight into the behaviours and information needs of this important user group. As well as informing earlier Futurelib research, gathering this new data would help to inform the ongoing activities and future projects of the Futurelib Programme. It was further expected that this research would not only deepen our understanding of postdocs, but that it might also lead us to envisage and design new services or products which could better meet their specific needs. As our intention was to gather as much holistic information as possible, in line with Futurelib’s ethnographic guiding brief, we decided that an in-depth cultural probe would be the most appropriate user experience (UX) research technique to employ.

1.2 Cultural Probes

A cultural probe is a collection of carefully designed activities and exercises that are given to an individual to complete over a set period of time, with a view to deriving a richer understanding of their lives, including their motivations, thoughts and behaviours, along with the cultural and social context that informs these. Cultural probe packs (an example is pictured above right) are usually provided to a number of individuals from a particular group, in order to probe more deeply into the practices and routines of that community. The kits are
usually designed in such a way as to engender engagement and inspiration in those who have agreed to complete them, with the aim of maintaining their interest and enthusiasm throughout the duration of the research. They should also provoke participants to consider their day-to-day behaviours in detail, inspiring them to evaluate and reflect on their choices and actions in a way that other research methods might not. A daily diary is usually a key component of a cultural probe and is often the chief means of ensuring that evaluation and reflection takes place. Other pack components can include: cameras, voice recorders, maps, postcards and other materials. In addition to completing the activities that make up the pack, participants are usually briefed in some detail at the project start, and kept in touch with during/throughout the project. Most importantly, each participant is interviewed in depth at the close of the project. Cultural probes are usually adopted when researchers are seeking to gather information in an exploratory manner, without any specific research questions in mind. The intention is to gather as much detailed and open-ended information as possible, any of which might ultimately prove to be important when generating ideas in response to the data gathered. In this way cultural probes embody the ideals of an ethnographic approach, taking a holistic approach to research in order to document a culture (the word ethnography is derived from the Greek: *graphy* – writing, and *ethno* – culture, literally ‘writing of culture’).

Given that we we had no specific agenda in mind it seemed obvious that conducting a cultural probe was the right approach for this research project.

### 1.3 The Presence Project

Once we had decided to create a cultural probe one of our first discussions was concerned with what the pack should contain. What activities and items would inspire and entertain participants and encourage them to commit to the project and, just as importantly, provide us with insights into what it means to be a Cambridge postdoc? More specifically, how could the materials included tell us as much as possible about their information and research behaviours? A key inspiration was the very first cultural probe devised in the late Nineties by two collaborating design companies. Entitled ‘The Presence Project’ this EU research initiative sought to increase the visibility and quality of life of three communities of elderly people in different European countries, through novel interaction techniques. The design companies had no idea if their cultural probe approach was going to work, as the method had been devised especially for the project. In the event, the communities responded fairly strongly with two of the three groups returning around half of the materials in the packs. The Presence Project’s innovative way of gathering information from, and engaging with, its participants was an approach we were very keen to emulate. The Presence Project can be read about in more detail here: Gaver, B., Dunne, T., & Pacenti E. (1999). Cultural Probes. *Interactions*, 6 (1), 21-29.
1.4 Going analogue

One of the defining characteristics of the Presence Project’s cultural probe was the analogue nature of the contents of the pack. This may have been in response to the age of the participants or perhaps just a reflection of the time. Regardless of the reason for that decision we were interested in taking a similarly analogue approach. Our own reasons were two-fold: firstly because we were interested in discovering if in this more digital age a more analogue approach might be seen as ‘retro’ and therefore appreciated by our email- and digital platform-beset participants; and secondly whether there was something to be said for the deliberately tactile and tangible nature of the pack contents and tasks which might encourage engagement and creativity.

1.5 Project name

David came up with ‘Snapshot’ as a name for the project. The name fitted perfectly as the cultural probe promised to give us a two-week snapshot of our chosen research community, a brief but incredibly in-depth window into their world. In the case of one of the tasks, the snapshot aspect would be more literal, as participants would be asked to illustrate their research lives with relevant photographs.

2. PARTICIPANTS

Recruitment to UX projects is never easy and Snapshot proved to be no exception. Many postdocs had understandable concerns about committing to a two-week research project, despite our reassurances that most days would require no more than 15 to 20 minutes of their time. Our own time constraints – the time we had between research projects – also led us to accept that we would not be able to recruit any more than the 5 postdocs who we had managed to sign up in the initial period after our recruitment efforts had begun. The study was designed for 10 participants, so we decided to fill the remaining 5 places with PhD students who were very eager to take part and were another user groups with very specific and different information needs and routines. We recruited participants through a mix of social media promotion; leveraging of personal and library networks; and the support of Cambridge University’s postdoc society.

The final breakdown of Snapshot participants was as follows

- Postdocs: 2 x Chemistry, 1 x Biochemistry, 1 x Education, 1 x Politics & International Studies
- PhDs: 2 x History, 2 x Education, 1 x Zoology
3. PROBE CONTENTS AND ACTIVITIES

The Snapshot cultural probe incorporated a selection of UX research methods. We knew from experience that each method worked very well in its own right, and felt that together under one umbrella they would form a fun package of activities that would help to retain the interest of the 10 participants. Participants were asked to complete a handwritten diary, and a series of tasks: drawing a cognitive map of their research landscape; writing a love letter or break-up letter to a library space, product or service; and taking photographs of important elements of their study lives. One other task arose simply from a desire to make the packs and tasks more colourful and tactile – the provision of a piece of coloured foam on which participants were invited to write responses.

Below: Collating the cultural probe packs

3.1 Design considerations

When designing the probe we decided to avoid theming or gamifying the contents too much visually, but we still wanted the packs to be attractive, so chose strong bold colours for the plastic packs, the task envelopes, the aforementioned foam, the USB stick for the photo study, and coloured (Sharpie) pens provided. Care was taken to write simple, straightforward and informal instructions in order to ensure engagement but also to strike a conversational style, as if we were there in person advising participants on what to do. We would be there in person at the start and end of the project and in remote contact via email at the halfway point, but the majority of the study would be completed without our supervision. It is worth mentioning that, for what are hopefully obvious reasons, at no
point did we refer to the study as a cultural probe (either verbally or in writing) with participants. Similarly we did not ask participants to ‘create a cognitive map’ but simply to draw a map of their routine/study life.

Below: The Snapshot welcome leaflet

3.2 Research diary
Diaries are standard components of cultural probes due to the opportunity they offer for regular and detailed reflection on participants’ activities, thoughts and motivations. In line with our deliberately analogue approach (and to help to ensure that the diaries would be completed) we made the decision to spend a not inconsiderable amount of time handwriting the questions and tasks in each diary. Our hope was that given we had spent the time to actually write in their diaries, thereby emphasising how invested we were in the project, participants would feel more obliged to respond. We were also interested in discovering whether any of the participants enjoyed the novelty of handwriting or whether it was seen as unnecessarily time-consuming.
For each day of the study we left two pages for a daily reflective diary entry on participants’ information and research practices, and on certain days asked questions seeking more detailed and specific information. The questions handwritten into the diaries were as follows:

1. Where do you go (online, or in person) and how do you ask (again, online or in person) when you need research support?
2. What motivates you to research, and what demotivates you?
3. Tell us about a successful and an unsuccessful visit to a library in the past year. What did you like? What did you dislike? Did you interact with the staff? How did that go?
4. Today (or any day this week) we want you to find a new place to work using Spacefinder* (spacefinder.lib.cam.ac.uk) Tell us about your experiences of working in a new space.
5. Today we want you to tell us about the breaks you take from your work. How long are they? What do you do during breaks? How does this affect your work?
6. What has conducting this daily study revealed to you about your working practice, if anything? Has it highlighted anything you could improve in terms of your research process? Is there anything you think we could do to improve library services?

(*Spacefinder is a tool for finding study spaces matching user needs developed by Futurelib)

Handwritten motivational messages were also included in the diaries at various points to encourage participants and to convey our gratitude, for example: ‘have a great weekend’; ‘congratulations on finishing the study!’
3.3 Tasks

On each Tuesday and Thursday of the two weeks of the study, participants would be directed from their diary to open a ‘task envelope’. These tasks, outlined inside, were designed to further explore their experiences of conducting research at the University, as well as to vary the study activities and increase participant engagement. The envelopes were dated on the front to indicate when they should be opened.

![Task envelopes](image)

*Above: Task envelopes used to vary the Snapshot study and add depth to the information gathered*

3.3a Photo study (‘A picture of your research’)

On the second day of the study participants opened their first task envelope to find instructions on completing a creative photo task during the course of the two weeks. This involved documenting through photographs the following aspects of their experience of conducting research at the University:

1. Your favourite study space
2. What you have with you when you work
3. The most indispensable item for your research
4. Something that helps you get through the day
5. What success looks like
6. What failure looks like
7. The best part of your day
8. Something inspirational
9. Something surprising
10. What Cambridge means to you
Participants were encouraged to be creative and have fun with the task and asked to save their shots on the USB stick provided. We did discuss the possible advantages of providing ‘analogue’ disposable cameras instead of USB sticks due to the possible novelty value of taking photos ‘the old way’ (and the anticipation of seeing what images were developed); the fewer number of steps for participants; and to prevent the curation of a ‘perfect’ set of photos (potentially including images sourced from the web). Ultimately however it was agreed that participants would probably take more ‘natural’ photographs while on-the-go with their smartphones.

As well as being interested in the photos taken we anticipated that they would be used as prompts for further discussion with participants during the final interviews. Experience gained from previous Futurelib studies has taught us that if participants have a focus that is not solely the interviewer (e.g. photographs, or a cognitive map) they will feel more at ease, and share more.

3.3b Love or break-up letter

The second task involved participants writing a letter to a specific library space, service or product (e.g. a database) as if the chosen target were an actual person, either professing their love for it or breaking up with it. The idea behind this technique is that by anthropomorphising a product or service an honest, emotional response is elicited from the letter writer. Break-up letters are particularly valuable as they typically offer lots of detail on existing problems with spaces, services and products and highlight opportunities for change and design. We left it up to participants to write either a love or break-up letter, but encouraged them to write the latter (see right), and asked them to post it back to Futurelib at the University Library in the stamped and addressed envelope we had provided.
3.3c Cognitive map (‘Map your Cambridge experience’)

For this third task participants were asked to draw a map (with the coloured pens provided) of their research landscape: ‘the services and spaces you use, the people involved in your research life, and your daily routine.’ We advised that the map could take whatever form they wanted: ‘… a mindmap, a geographical map, an abstract depiction of your activities’ and that there were ‘no right or wrong answers’. We also urged them not to worry about the quality of their drawing.

Cognitive mapping is usually a supervised exercise in which participants are given three pens in different colours and three strict 2-minute time slots in which to map their experiences. However for this study, as we were not present, alternative instructions were provided:

Give yourself 6 minutes to draw a map of your research activity. Every two minutes you should change the colour of your pen. On the bottom, right hand corner of your map please give each colour pen a number in the order you used them. After the time is up please label the features on your map.

We asked for the order in which they used the coloured pens to be numbered so that we would later know what elements of the map were drawn first and thereby infer user priorities. At the analysis stage the size of the elements participants had drawn, the relation of different elements to each other on the page, the descriptive wording they chose when labelling, and also what they omitted from their maps, would all offer insights into user experience and preferences. Although some UX researchers choose to code the frequency of drawings of certain elements or words (for analysis using NVIVO or Dedoose for example), our intention was simply to use the map as another tool during interview to prompt discussion and understanding, as well as to ascertain fuller details of our participants’ research lives.
3.3d Foam study

The fourth and final task envelope contained instructions on the use of the mystery piece of foam included in each pack, on which we hoped to received short, honest opinions about library services. Participants were asked to write five words on one side of the foam summarising positive experiences of library services, and another five words on the other side of the foam representing negative experiences. We left it to participants’ discretion as to additional foam decoration (‘feel free to decorate it however you like, and with whatever materials you have to hand’). Knowing full well that this activity had no research antecedent we rather ‘sent up’ the activity in our instructions:

‘Foamology (from the Greek αφρός (foma) meaning “foam” and λογία (-logia), meaning "study of" is the systematic study of all things written and bouncy. It is designed to explore foam-related phenomena, and the surprising revelations which can often be derived from these.’

Nevertheless we planned to code and analyse the responses received (specifically the frequency and categories of the words chosen) and as with the other tasks the foam would provide another valuable way into more detailed interviews with participants.

4. BRIEFING AND DEBRIEFING

From the outset we were convinced that the success of our cultural probe would depend on the connections forged with participants during our in-person meetings with them. The briefing needed to secure participant commitment to, and engagement with the study, while the debriefing (in effect a user interview) would help us to derive vital understanding of research priorities, preferences and routines through analysis of participants’ research diaries and how they chose to complete the tasks we set. **Below: Two Snapshot participants at the main University Library**
4.1 Initial briefings

Although the offer was made to meet participants for their initial Snapshot briefings at their place of work, or a location of their choice, many chose to be briefed at the main University Library building. This was in part due to the offer of a personal tour of the Library, including a brief overview of its history, ahead of a briefing about the study. As well as clearly outlining the time commitment of the study and encouraging them to email their Futurelib contact at any point with any concerns or questions, the initial briefings were a conscious effort to build relationships with each person and to demonstrate our genuine interest in their experiences of conducting research at the University. Participants were informed that it was intended that our research into their information needs and behaviours would feed directly into the design of future Cambridge library services; the Futurelib Programme’s overall aim being to transform research insights into new services or products.

4.2 The halfway point

At the halfway point (a week into the study) each participant received an email asking how they were progressing. All participants replied to say that they were finding the study both interesting and better still, personally rewarding. Many also mentioned how they had found the tasks fun to complete, especially the love/break-up letters (the task they had most recently completed):

- “The love letter idea was fantastic... really fascinating. I really enjoy the study and it is not time consuming.”
- “It’s going well so far, and I’m finding it quite fun. You should get some post soon!”
- “Everything is going well and my train journey has been the perfect amount of time to keep the diary.”

Unfortunately, a few days later, while arranging the final debriefing interviews, we received word from one of our participants (a postdoc in Biochemistry) that they would not be able to complete the study due to family and work commitments.

4.3 Debriefing interviews

Soon after the two weeks, which formed the core of the study, were up, the completing participants were interviewed for between 1 and 1.5 hours about their research experiences. Where possible their completed study packs had been received ahead of the interview, allowing for some initial analysis of the materials, particularly of their research diaries. In this way, the activities, behaviours and problems they had recorded (including their answers to the questions set in the diaries) were identified which would benefit from further exploration during interview.
All of the interviews were recorded and no notes were taken at the time, in order to ensure our full attention was focused on the interviewee. This ensured that a natural conversational style could be maintained throughout and the body language of participants observed. The interviews took place in locations ranging from hired seminar rooms in faculty buildings, to cafés in the University Library, the Education Faculty and Zoology Department buildings.

The interviews were semi-structured, the emphasis being on letting the interviewee tell their story with minimal interruption from us, rather than on seeking answers to a definitive list of questions. Participants were initially encouraged to reflect on what they had learned about their research and information behaviours during the course of the study. Each then talked through their research diary and the task materials they had completed. It was immediately clear that our cultural probe had made them think more deeply about their daily routines and choices as well as about how libraries and library services fitted into their research lives. All the participants had clearly enjoyed the study and were enthusiastic in interview, giving very full answers.

5. COMPLETED/RETURNED MATERIALS

We were pleased, but a little surprised, to receive fully completed diaries and tasks from all nine of the remaining participants, giving us a 90% materials response rate overall. The high percentage of returned materials suggest that the level of personal interaction sought, the mix of materials and tasks, and the time commitment required had all been judged well. Of course, the very high response rate also meant that we had far more material to wade through, a fact that initially made the prospect of analysis rather daunting! Examples of some of the returned materials follow.

Left: A diary entry detailing where one of the participants goes to for research support: ‘A bit too embarrassed to come with very general questions to library staff...’
Left: A diary entry detailing what motivates one participant to research and what demotivates them: ‘There must always be something to look forward to, for there is so much to learn, to understand.’

Below: Photo study task: ‘This is what failure looks like’
Photo study task: 'This is what success looks like'

Photo study task: 'This is what Cambridge means to me'

Photo study task: 'What I have with me when studying'
Right: a love letter to the Faculty of Education Library

Below: a break-up letter to an anonymised library space

Dear Faculty of Education Library,

I’ve often thought of what would happen if you were gone and it’s unbearable. We support you, finding articles, our smiles while shelving books, we meet to help with a referencing issue—completely unthinkably. So I hope you never change—or if you do, you take care along the way. I’ve been around for the ride and guide you up the same way you’ve done so far. I know I’ve admired the jealousy of everyone who gets your attention, especially since everyone seems to be treated with the same dedication, care and professionalism as I am, though.

Just make me feel worse. Sometimes you’re just so cold towards me, and I feel distracted and sad. Even when you’re hot there’s that annoying fan that blows a draft and rattles angrily every few seconds. Often, I feel so uncomfortable in your presence. I sit at the computer in my non-adjustable chair, and my wrists and back start to ache because you’re so hostile towards me. Even when I look for light in the cold gloom there is never a glimmer of sunshine in our relationship because of your frosty, frosty windows.
Different approaches to the cognitive map task; a geographical representation above and a more abstract approach below.
Positive experiences and negative library experiences recorded on the foam we provided. Positives chiefly related to staff and resources, negatives to physical spaces, logistical problems and feelings of confusion.
6. DATA ANALYSIS and MAPPING

Due to the open nature of this research project (possessing little or no pre-conceptions as to what we were going to discover) we were thorough when transcribing participant interviews in order to ensure that we didn’t second-guess emerging themes. The transcripts were subsequently read through and testimony was highlighted that: struck us as important criticisms or reflections; explored areas in which services could be improved; or offered insights into how library services fitted into participants’ routines and activities, or impacted on their behaviour. These comments were transferred on to individual colour-coded sticky notes (each participant being assigned a different note colour), which were then arranged on the white walls of Futurelib’s research office under each individual’s name (see photograph below). The diaries were also re-read and again, insights, activities and problems were transferred to the wall. Finally the completed tasks were analysed and additional notes added to the relevant participant’s group of notes. The resulting sticky notes were either descriptions of behaviour, activities or direct participant quotes.

After grouping the notes for each participant, we read them all through again and began to identify themes, patterns, problems and behaviour. It was as this point that our activity stopped being simple sorting and instead the practice of affinity mapping, as specific categories, or affinities, emerged and the notes were rearranged on the office walls (overleaf). Any unintentional bias during this process due to our personal perspectives, experiences or subconscious agendas was balanced by the sheer quality, richness and diversity of the material we were working through, information that we felt sure we would have been unlikely to surface through more traditional user research methods.

An interesting side effect of the affinity mapping was a realisation that the most colourful categories represented those themes that were common to more participants, and therefore categories that deserved closer attention as our analysis work progressed.
Some of the most prominent categories to emerge at this point included: peer support; interdisciplinary communication and collaboration; relations with library staff; the use of e-resources; library training and teaching; physical study spaces; productivity; and accessing physical materials.

Once the affinity mapping process was complete, the next stage was to try to establish overarching findings for each category – statements that summed up behaviours or patterns emerging from participant responses. These findings were written on yellow sticky notes and added under the relevant category headings (see below).
7. KEY FINDINGS

The findings that we considered to be the most interesting and worthy of further exploration are reproduced in this section. All of them represent opportunities to improve the user experience of Cambridge libraries. Some are surprising, whereas others are more in keeping with our previous experience and expectations. The findings are detailed below, together with supporting quotes from participants.

N.B. Some of the quotes and returned materials reproduced below have been altered slightly to ensure their anonymity.

7.1 Friendliness, approachability and early contact is essential to the development of positive relationships with users

Participants detailed both positive and negative experiences of in person contact with staff working in libraries across the Cambridge system. Most of the positive relationships with library staff mentioned had begun through sociable interactions, rather than as a result of any specific research-related question. Responses received from participants also suggested that positive contact with library staff early on dramatically increased the likelihood of them asking for assistance later. Some talked about helpful introductory sessions in which they were informed about the support and expertise library staff could offer, whereas at the other end of the scale, some were unsure who they could go to for help.

- “There was no formal introduction, I just met them going through the College Library every day and recognising each other, saying hello.” (PhD)
- “The Faculty Library staff know me. Some of them know that I’m doing something to do with [specific subject area] and who my supervisor is.” (PhD)
- “Registering [at the Betty and Gordon Moore Library] took ten minutes, if that... they were very helpful.” (Postdoc)
- “As part of the mandatory introduction with the Faculty the Library staff give presentations saying what they offer. This gives you a clue that they know what’s going on.” (PhD)
- “At the Faculty you get a session from the Library in the first week as a postgrad which shows you all the search functionality, how to look for stuff, how to use the e-journals pages, how to use LibrarySearch, how to borrow books from all the libraries. Then there’s another specific session on referencing and what to do with the information you’ve actually received. A two-hour session on Zotero – from installing it to switching between styles.” (Postdoc)
7.2 The visibility of library staff directly influences the confidence users have in asking for assistance

Participants placed a large amount of importance on the visibility of library staff. Some mentioned that they felt very comfortable approaching staff in their college, faculty or department library due to the fact that they were visible and therefore seemed as though they would welcome being asked questions. Others commented on barriers, physical and otherwise, that prevented them asking for assistance, or at least made them feel uncomfortable doing so.

- “Most libraries are faceless. That’s why [the names of two College librarians] are different, because they’re not. [I will approach them with questions] because I know them, they’re approachable and visible, they’ve got their office door open. You step in and say ‘Hi, good morning!’ with any comments you have.” (PhD)

- “The Library staff are very exposed, right up front, they’re really friendly. You go through the door, they stand there and wave at you and you can go and chat with them.” (PhD)

- “Accessibility is important, to have a friendly face that you can go to with any problems.” (PhD)

- “There’s a glass division between the staff and the room. You go in and see a glass wall with three librarians sitting on the other side and I’m not sure who’s watching who! ‘Here are some librarians on display – you can feed them, just not anything that makes a lot of noise!’” (PhD)
7.3 One-to-one consultation sessions with library experts are considered to be extremely valuable

Participants across disciplines mentioned how useful and valuable they thought one-to-one consultations and support sessions with subject librarians and other library experts were. Some talked about having had positive experiences of this nature, whilst others mentioned having not received this support but being very keen to benefit from it. Participants specifically mentioned the importance of support from special collections experts, from language experts, and when seeking help to manage their research data.

• “At St. John’s College I’ve occasionally asked for help in the Old Library. They’ve been helpful with information about the provenance of books and other things.” (PhD)

• “I would like the opportunity to have some one-on-one stats training, support with my dataset. Problems arise specific to your data and nothing on the internet can help.” (PhD)

• “The Italian specialist at the University Library has been really helpful in buying the books that I recommend.” (Postdoc)

• “It would be great if you could organise a one-to-one training session with a librarian, using a certain resource. “What can you find for me?” and so on.” (PhD)

7.4 Library staff expertise could be made more visible

Participants mentioned that they would appreciate being more informed as to what expertise individual library staff could offer, as this would encourage them to approach these staff for support. Others said that they would not ask for support from staff working in libraries as they felt they may embarrass them if they did not have the answers. Some participants were unaware of who their subject librarian was, and even in some cases which library within the Cambridge system would be seen as their ‘home’ library. When participants were aware of which library staff they could ask for support, they were unclear as to exactly what they would be able to ask for assistance with. There was a worry in many cases that they would be asking too much and ’pushing it’ if they asked for help with anything beyond routine circulation enquiries. There was a strong feeling from most participants that library staff expertise could be promoted and advertised more prominently in Cambridge’s libraries, both online and in person.

• “You could have staff profiles on the University Library website, showing individual areas of knowledge and expertise.” (PhD)
• "It's not very clear who you go to for advice, and I'm worried about it looking like I want them to do my research for me!" (PhD)

• “The obvious places to ask for help in the UL are in the entrance hall and at the main desk in the Reading Room, but I don't ask as I feel it may embarrass staff if they don't know the answers.” (Postdoc)

• “The Education Faculty Library team present themselves as a really good team of librarians, but actually each one of them has their own super powers!” (PhD)

7.5 Library services and training opportunities should be advertised coherently and consistently

Some of those taking part in the study mentioned that although they were keen to keep up with library service changes and developments, as well as training opportunities offered by libraries, they were often unaware of where to look to find information about these. Some mentioned receiving disparate information through a number of channels, from both their library and their department or faculty as a whole. Others mentioned that they ended up hearing about useful services (both library services and others) by word-of-mouth, rather than through any official communication from the library or their department. Some participants also stated that they would prefer to only monitor a few communication channels in order to receive comprehensive and up-to-date information about Cambridge libraries and their services.

• "I don't look for database training online, usually you hear through emails being sent round and so on" (PhD)

• "The Library keeps a Facebook page and a blog. Whenever they update the blog they advertise on Facebook. I like that I only have to check these two channels." (PhD)

• "Information comes from the faculty in a lot of ways... there are too many sources in which information is coming in and they're not all necessarily getting viewed." (PhD)

Right: A section of a frustrated break-up letter to the Moodle VLE used in the participant’s faculty, focusing on the fact that information remains listed as a priority months after it is uploaded.
7.6 Online help services should be visible at the point of need

A common theme throughout the study was that participants were unable to find online library help when they needed it the most. Some actively mentioned that it would be useful to have links to services such as LibAnswers (Cambridge’s Frequently Asked Questions library help service), and other resources such as LibGuides prominently displayed in the public facing library catalogue and database pages. When asked, participants often replied that they had not even heard of these services and did not know they were available to them. Others did not know where to look for database training and support so ended up trying a number of different channels before finding the options that were available to them.

- "I started looking on the University website for help with stats and I found a stats clinic, so I used that. The Maths Department run it, two times a term." (PhD)
- "I wouldn't even think to look for library help pages online, it's just not in my mind." (Postdoc)
- "Postgrads get what they want in terms of training on referencing, databases... They may not know what is available to them though." (Postdoc)

7.7 Peer communities are at the centre of the work and social lives of many Postdocs and PhD students

The social groups of many participants were primarily made up of peers within their discipline. Social events and other opportunities to spend time with fellow researchers were seen as an important and rewarding part of life at the University. Although many of those who took part in the study were primarily involved in individual research activity they still wanted peers around them to take breaks with, to have short conversations with both about work and other aspects of their lives, and to make the experience of being a University of Cambridge researcher or research student feel less solitary and isolating.
• “It’s nice to work with someone, to bounce ideas off and share a half hour lunch with.” (PhD)
• “Working in the office makes you feel involved in the lab life. This is very important because you can give and receive feedback on people’s work. It feels more like a teamwork effort.” (Postdoc)
• “We have a very strong PhD community. Our supervisor ensures we meet every two weeks in our second year. Discussions, parties, writing practices... a very close knit group.” (PhD)

Often the boundaries between work and social activity seemed undefined, in some cases almost non-existent. For the majority of participants the University and the research they were conducting was the primary focus of their life and was not simply conducted on a ‘9-to-5’ basis.

• “Lunches and dinners with colleagues are important to me in Cambridge. This is what makes Cambridge Cambridge!” (Postdoc)
• “13:30 every day people break. We never had a meeting but we all break at the same time every day. After giggling we go back to the same room that's completely quiet.” (PhD)
• “As you develop a relationship which isn’t about a paper or funding, when you get on well as people... you’re much more likely to be supportive whilst working together.” (Postdoc)
• “We do a journal club with the research group. I suggested it – I think these types of things are great!” (Postdoc)

Interestingly, in the cognitive mapping exercise where participants were asked to ‘map’ their Cambridge experience, the first instinct of many was to represent their peer support network, along with their relationships with other students, staff or collaborators (example right) rather than to map their experiences of Cambridge in a physical or geographical sense.
7.8 Peers are often the first port of call for support with research rather than library staff

Almost all of the participants regularly asked for support with their research from peers, including aspects that were directly related to information and library services. Most worked in close physical proximity with peers, in the same, or related disciplines. They also often had personal relationships with them, which meant that they could ask for support without the fear of looking foolish.

Participants mentioned that they did not want to ‘bother’ library staff with information support enquiries, and sometimes that they felt that peers in their discipline would have more experience dealing with information in a specific subject area.

- “I’ll ask friends in the Faculty for help and advice through Facebook, it’s very informal.” (PhD)
- “There’s a small group of postdocs that I talk to a lot about work and we try to help each other wherever we can.” (Postdoc)
- “Colleagues will have more specific knowledge [than library staff] about a particular theme.” (Postdoc)
• “There is support there [from peers], there is specialist support, where you learn who has the knowledge.” (PhD)

• “You have to ask – no one will come up to you and offer you support, but if you ask they will be happy to help you.” (Postdoc)

7.9 Peer communication is a key way of finding out about services and events

The importance of ‘the grapevine’ in terms of learning about new services, products and events, both related to libraries and otherwise, was a strong emergent theme of the study. Participants valued the social interactions they had with their peers specifically because of this. One individual (in a research group or PhD Room for example) may have learned of a new service or upcoming event and would disseminate this information either to another individual in their peer group or to the group as a whole. This applied to conferences, library training sessions and other services offered within the University system. This transferral of knowledge usually happened during informal social sessions such as tea breaks, lunch breaks, and quick conversations conducted around work and research.

• “I’ve only realised in the last year that [my College] will pay for evaluations at the Disability Resource Centre, reading comprehension tests and so on. [...] This can be a very expensive process but my College covered it. I found this out through talking to other students, they don’t advertise it at all. There is a lot of available funding and opportunities that you may not know about.” (PhD)

• “[I hear about library training sessions] mainly by word-of-mouth. The last course I went to was recommended by a friend. I need to know whether it’s going to be worthwhile before starting.” (Postdoc)

• “During breaks with other PhDs we’ll talk about upcoming events. It’s the grapevine, you hear about things happening at the Faculty or College which may not be very well published elsewhere.” (PhD)

7.10 Inter-disciplinary contact is immensely valuable to research

Both Postdoc and PhD participants placed a large amount of value on the opportunities they had for communication with those conducting research in other disciplines, both directly related to their own and otherwise. This was seen as important as individuals with different academic outlooks could provide a fresh perspective on their work. Postdocs particularly valued working closely with those in their research group with different academic backgrounds and areas of expertise.
Participants also mentioned that without inter-disciplinary influences they would become too rigid in their approach to research.

- “It’s important to talk science with colleagues because they have very different angles. These conversations can give you new ideas.” (Postdoc)
- “Being trained as a biologist you assume that the way you present results is the same across the sciences, but it isn’t.” (PhD)
- “I read around the subject to keep up with advancements in the field. I also read up on other [research] group members’ work and specialisations, it means I can keep up with their presentations!” (Postdoc)
- “It’s really important to engage with the subject, or field, more broadly. If you don’t make yourself do it then you won’t.” (PhD)
- “I’ll ask my P.I. or my peers for support. They may not be focused on the same work but they have areas of knowledge that I do not, and I can also reciprocate.” (Postdoc)

Besides the immediate practical benefits in terms of their research, participants felt that meeting with those from other disciplines was important for their wider personal and professional development. They valued the opportunity to socialise with researchers from outside the field, although often this socialising was conducted around or developed from more official academic events and activities. As valued as it was, it was sometimes felt that the University could do more to provide opportunities for this inter-disciplinary contact.

- “The last month I’ve been to a few training courses with the University. There are a few people who go to all of them so you tend to exchange numbers and meet afterwards. I’ve made a few friends from these courses.” (PhD)
• “We meet every two weeks with the research group and any visiting academics. There are usually three talks: two on research updates and one on literature. I find them really interesting and it’s a good chance to meet with people afterwards.” (Postdoc)

• “A focus on theory in academic study can take you away from the real goal. I ensure I don’t get too ‘holed up’ in my research by talking with others. It’s fascinating to hear what people think from outside the field.” (PhD)

• “One of the things I’ve learnt over the last two years is that going to seminars and just hearing things is better than not going to them.” (PhD)

7.11 Postdoc- and PhD-dedicated study space is valued very highly

Participants from scientific disciplines valued the sense of continuity provided by having an office, PhD room or ‘lab’ to return to each day. They liked the sense of discipline that this created and the fact that, to an extent, it separated their work and home lives. They also relied on the fact that the same colleagues or peers would be working in this space each day.

• “I do most of my work in the PhD Room. It’s about the discipline. Once I’m in there... no distractions!” (PhD)

• “I prefer to work in the office. Why? Because of my colleagues. Colleagues help, you can ask them questions and they ask questions of you.” (PhD)

Participants in the Humanities and Social Sciences mentioned how frustrating it was that they did not have a workspace that they could continuously return to. Many had a preferred spot in a library, but were unable to leave their materials there and had to hope that it would be available each day.

• “What bothers me most is not having a set place to work that I know I can return to.” (Postdoc)

• “I feel like it’s a problem for most humanities students. Why don’t they give us an actual desk where you can make your own space? [...] We have to come back every morning and build the workspace again, it’s really frustrating, really demotivating.” (PhD)

Participants mentioned that exam time was particularly difficult in this regard, with Cambridge libraries being full of undergraduate students revising:

• “[College] Library gets a bit gross during exams!” (PhD)
• “I don’t like the Faculty Library during exams! The undergraduates seem like they haven’t looked after themselves in a few days and they’re really stressed out. Everything they have, every book, every note is spread out on the table in front of them.” (PhD)

Left: Two photographs of favourite study spaces taken as part of the photo study task: the first in a lab for postdocs; the second a desk in a college library. The most highly prized study spaces were those dedicated specifically to postdocs or PhDs that could house their research materials, be returned to every day, and that afforded individuals contact with their colleagues.

7.12 Workspaces are determined by the availability of materials or equipment

Some participants shared that the locations of primary source material regularly dictated both their schedules and their use of physical library spaces. Others chose their workspaces based on the availability of a dual-screen set-up which they deemed necessary for their work.

• “Where I work is dictated either by books I need or by equipment.” (PhD)

• “In the office I am very lucky to have three monitors. One will have the programme, another an article, another my email. I can have the programme open and look for information at the same time.” (Postdoc)

• “I need to be somewhere with two screens ideally. I can take notes by hand, but it’s better to have searchable notes on primary stuff.” (PhD)
7.13 The importance of breaks for health and wellbeing is largely understood

The way in which participants treated their breaks was variable, as was the level of awareness of their importance. Most however were mindful of the importance of structured breaks that did not only take them away from their work but also from their offices and other workspaces. Many participants mentioned the importance of spending time outside, both in terms of their mental endurance and wellbeing and in respect of their physical health.

• “I tend to combine travel and breaks, but I’ll also go outside when taking more conscious breaks. It’s a wonderfully refreshing thing to do.” (PhD)
• “Leaving the office is important, to prevent becoming ‘Gollum in the corner’!” (Postdoc)
• “I have to physically leave my desk to properly contemplate. Sometimes I just feel like ‘that’s enough!’ I try to write around 1,000 words a day but sometimes I just feel that there are no more ideas and I get too ‘dizzy’, so instead of staying on Facebook I go out. It’s really necessary, I can’t work consistently for more than a couple of hours straight.” (Postdoc)

7.14 Tasks are intentionally varied to increase endurance and productivity

Participants recognised the importance of changing their task in order to remain productive. As many were primarily involved in one research activity, often for long periods of time, they tended to save administrative tasks such as email or other jobs such as collecting books and checking references for times when they knew they needed to break from their primary activity.

• “When I find I’m not paying attention or using Facebook - that’s when I’ll go to the Chemistry Library. I’ll print the article and read it there so I’m away from my computer and I’ll actually read it.” (Postdoc)
• “I noticed that if I have less than an hour between tasks I won’t start something new. But I’ve realised I spend a lot of time doing that. [...] I’ve started keeping ‘not important’ tasks for the last hour in the day to raise my productivity.” (PhD)
• “If things are not going well I sometimes go somewhere else, change task or do some admin for a bit, so I’m still being productive.” (PhD)
7.15 Access to refreshments directly affects productivity

Participants placed a strong emphasis on having convenient access to food and drink. Many based elements of their schedule around this, while others were frustrated at how much their work could be affected by the time they spent on finding lunch, for example.

- “Because the food is expensive and not great at the faculty I can waste lots of time going to get food and come back. If I go at the wrong time it takes me twenty five minutes just to queue. This has then taken over all of the break I allowed for myself.” (Postdoc)
- I’ll work in Aromi because it’s close and also because it has good coffee! I’ll also work in Hot Numbers.” (Postdoc)

Below: A diary entry relating to liquid refreshment and a photo of ‘something that gets me through the day’.

In fact, the majority of participants took photos of coffee in response to this category.

7.16 Google Books is regarded as an important research tool irrespective of discipline

Participants of this study regularly used Google Books for literature searches and to vet material for its suitability and relevance. After establishing the value of material through this platform they would either seek the electronic full text online or visit a library to use or borrow a printed version. This behaviour occurred across disciplines. Participants also revealed that they used Google Books during supervisions with undergraduate students and actively recommended it to students as a useful resource for their studies.
• “Google Books is good as you can see chapter headings in edited volumes. This information is not always available through the [library] catalogue. You can also see the table of contents and sometimes the preface.” (Postdoc)

• “LibrarySearch is too broad. I’m studying materiality [in literature] but I get results from the sciences. In Google I can stop that by extending the phrase, or using synonyms.” (PhD)

• “Google Books... [is] useful as the Google search functionality is intuitive and easy to use. It’s useful to be able to search in the text for specific terms, but sometimes it turns up a lot of results that aren’t related or really useful.” (PhD)

• “I use Google Books to check the suitability of material before going to the library. It’s easy with Google Books to search the full text.” (Postdoc)

• “Google Books is a brilliant resource and should be sold consciously to students!” (PhD)

One postdoc also mentioned using Google Scholar to find material that they knew they had already saved in their own local filing system:

• “Sometimes I’ll use Google Scholar to find things I know are on my PC, because it’s less clicks!” (Postdoc)

7.17 Physical materials and handwriting are still vital to research

Participants across the disciplines often focused on the importance of physical materials and analogue approaches in relation to their work. Postdoc researchers working in the Sciences mentioned that they preferred printed text books and kept handwritten logs of their research activity, while those in the Humanities and Social Sciences talked about the importance of having printed copies of journals available to browse and taking pens and paper with them to work in libraries, rather than an electronic device. One of the Science postdocs responded to the photo study category of ‘the most indispensable item for research” with an image of a piece of paper.

• “A journal may be available online, but if it’s online I’m not going to go look for it. I don’t think ‘Oh my goodness, it’s the 14th of the month, the new issue of ‘Education …’ is out!’ But if I go in [the Education Faculty Library] I can scan them like in the magazine section of a shop, I go to the back of the journal and see who has written the articles, which is something you have to look for a bit more in the online version.” (PhD)

• “I have two handwritten note books, one with the experiments and another keeping track of what experiments are running. I tick things off when they have run and again when I’ve
checked the results. It’s good practice to have things written down. It’s easier to just have it there in writing.” (Postdoc)

• “I’m deeply invested in aesthetics. I love things to do with tactility, the embodiment of craft. I love the idea of a book as craft.” (PhD)

• “I like printed reference books. I have one, a 1,000 page text book... it’s a real tome!” (Postdoc)

• “I prefer hard copy books. I’m using them at the moment to do background readings in Maths to brush up on my knowledge gaps.” (Postdoc)

• “Paper! Not screens, not computers, but paper.” (Postdoc)

7.18 Online help forums play an important role in supporting research

Many participants mentioned using online help forums as an initial way of looking for answers to specific questions that arose during the course of their research. This was particularly prevalent in the Sciences.

• “You can follow questions on Research Gate and see what other people have said on subjects. This can show you new methods. You can educate yourself better than from a textbook.” (Postdoc)

• “Stack Overflow [is an...] online forum with lots of experts. You can ask a question. I found out from a friend, it’s really useful.” (PhD)

• “I tend to Google the problem I have. Open forums are available for programmes and modifications people have made in the past. They’re similar to Yahoo! Answers.” (Postdoc)
7.19 Zotero and Mendeley are the reference management tools of choice

Participants had different views on, and approaches to, managing their references. Zotero and Mendeley were the most popular software tools. Some participants are downloading and storing PDFs locally in preference.

- “I keep PDFs in my own local filing system. I used to use Zotero. Sometimes I wish I’d kept it up.” (Postdoc)
- “I started by saving all my journals and citations onto my laptop. I now use Mendeley, but it’s not as easy to find things through there and keep it as tidy as my own filing system.” (PhD)
- “It’s not too big of an issue which [reference management] software you use, but you have to use something! People have lots of problems with papers if they don’t.” (Postdoc)

7.20 The accessibility and range of printed and electronic literature in Cambridge is appreciated

Participants were aware of how fortunate they were being able to access the range of print and online literature provided at the University of Cambridge. Those working in the Humanities valued both the primary and secondary printed literature available to them. Scientists taking part in the study were also aware of the cost of electronic journal subscriptions and valued the expenditure as they considered them of paramount importance to their research.

- “I appreciate having multiple copies of books and being able to borrow from lots of libraries.” (PhD)
- “Access to journals is very important! I know it takes a lot of budget, but please maintain it! They are important for researchers such as myself.” (Postdoc)
- “It’s very rare in Cambridge that I hit a wall in terms of finding information that I am looking for, or not being able to access...”
that information once I've found it.” (Postdoc)

• “Throughout the two weeks of the study I looked for a lot of literature and only two were not either open access or paid for by Cambridge.” (Postdoc)

• “I was impressed by the fact that the University Library had two new books I was waiting for, they just hadn’t been catalogued yet.” (Postdoc)

7.21 An intra-library loan service was requested

Some of the participants, particularly those working in the Humanities, complained about the lack of an internal library loan system across Cambridge libraries. They felt that a ‘book drop service’ would be of great benefit to researchers who had to use a lot of print resources from a number of locations in a short space of time. Others recalled positive experiences of similar services at previous institutions. One participant also mentioned the frustration of not being able to place inter-library loan requests for material from external institutions online.

• “A books delivery service would be nice, for researchers and staff for example.” (Postdoc)

• “Inter-library loans within the University would be good. In my other University they did this.” (Postdoc)

• “It’s annoying that you can’t request inter-library loans online.” (Postdoc)

7.22 Training and support for statistical packages could be increased and made more visible

Many of the participants related how they struggled to use, and find support for, statistical software packages. Some of the problems highlighted included: knowing what each package does; confusion over licences and access; and a lack of in-depth training courses and available advice.

• “It would be useful if you could spend more one-on-one time with them, either after the course or sometimes after – during the course you’re given a data set that’s cleaned up and perfect or not something you’d actually have.” (PhD)

• “I’m trying to figure things out on my own... it’s really silly stuff, but it takes a lot of your time” (PhD)
8. SERVICE DESIGN IDEAS

After arriving at the findings above the next step was to generate service design suggestions. Some of these ideas flowed directly from the findings; others were arrived at through an idea generation session. Although we chose a cultural probe approach precisely because we were seeking to gather detailed information about the Cambridge postdoc and PhD communities without any specific research questions in mind, some of the findings also supported a design project that we had been considering undertaking for some time, thereby giving it a solid evidence base.

8.1 Expertisefinder

The majority of participants in this study related that they felt library staff were not visible enough (physically or virtually) and that the expertise they possessed (and how that might help their users) was similarly hidden. Some openly called for this sort of information to be listed on the University Library website, while others suggested that the expertise of individual librarians should be widely shared with users in order to better promote the sort of support on offer.

Participants who had received expertise from library staff were grateful for the opportunity and appreciated the knowledge imparted. However, very few of those we talked to knew where to find this information or had not even thought about library staff being able to provided this sort of assistance, in fact, most had stumbled upon this sort of support by chance or had heard about it from their peers. Wider advertising of library training sessions was requested, as was the promotion of existing support services (e.g. LibAnswers) of which participants were not aware. One of the most frequent comments was that Cambridge’s library staff are not visible enough and that this is a barrier to postdocs and PhDs approaching them for assistance and expertise. Another barrier was the perception individuals held that library staff might not possess sufficient expertise to be able to assist them.

All of this (recounted in findings 7.2 to 7.6 above) led us back to the idea of an Expertisefinder website, as a sister site to the successful Spacefinder service. Like Spacefinder, which matches users
with study spaces that meet their needs, Expertisefinder could match users with specific library staff ideally placed and informed to help them with research advice when it is required. This idea has been discussed before as a means of promoting what library staff can offer, but it is the first time that we have received such strong and clear evidence from users that a service of this nature could fill a very real gap in their research lives.

As well as offering staff profiles detailing specific expertise, the service could also feasibly promote training sessions across the library system and perhaps even facilitate course sign-ups. The site would be an obvious place to offer links to associated support services available across Cambridge, such as LibAnswers. Expertisefinder would serve to make the library expertise on offer in the Cambridge library system far more visible to our users.

Benefits:

- Make library staff expertise more visible
- Promote the breadth and value of expertise within the library system
- Offer point-of-need support to users
- Advertise library courses and offer a sign-up facility
- Promote associated support services
- Increase use of library services

8.2 The I-D Network

This research project made it clear that the peer communities in which PhDs and Postdocs find themselves are hugely important to them, both for their studies and also in terms of their wider Cambridge experience. However, the study also revealed the value individuals derived from contact with those in other disciplines. Inter-disciplinary communication and connections offered fresh perspectives, processes and outlooks, as well as preventing researchers from becoming isolated in their own areas of study.
Opportunities for inter-disciplinary contact beyond research groups chiefly arise through college activities, social events and personal friendships, but beyond that participants knew of no established mechanism for connecting with researchers beyond their disciplines. For those conducting inter-disciplinary research (as many PhDs and postdocs at Cambridge are) this can be a stumbling block when seeking to progress their studies. Some participants reflected that there were not enough opportunities for this sort of collaboration and felt the few existing opportunities to be too *ad hoc* at present.

These views (chiefly summarised in 7.10 above) led us to conceive of an ‘I-D (Inter-disciplinary) Network’ the main aim of which would be to support inter-disciplinary research, collaboration and contact across the University. This network could have both a physical and virtual presence. A website by the same name would offer registered users the opportunity to create a profile detailing their primary and secondary research interests. It could also offer functionality that would allow them to search for researchers in other disciplines, with whom they could make contact and discuss their research needs, or seek advice through a live chat service and other forum-like functions. The I-D network would also extend to in person contact through: inter-disciplinary ‘meet and greets’, workshops, and seminars, all exploring potential connections and opportunities. Library staff facilitation of the initiative could serve several purposes: improved understanding of research communities and their needs; promotion of research tools and library support at workshops and seminars; and as a means of sourcing research data and academic materials for the repository. The service would also offer the opportunity for enhanced library collaboration with departments, the Research Office, Student Services, the Postdoc Society and other relevant parties, in fact ideally it should be a collaborative venture between them all, albeit initiated by the Library.

Benefits:

- Offer and support more inter-disciplinary connections and collaborations across Cambridge
- Facilitate the sharing of ideas and approaches across disciplines
- Increase library understanding of user needs
- Increase positive perception of the role of libraries and add value to existing services
- A forum for disseminating information on library services, tools, OA and RDM support
- A means of gathering research data and materials for the repository
- Build relationships and understanding between Cambridge library staff and other user-facing groups
8.3 Library Envoy

All participants mentioned that peers within the field were often their first point of contact for questions relating to information seeking approaches, web tools, data management and library services. It has been long known that librarians are not exactly at the top of the ‘go-to list’ for many users, and Snapshot has once again confirmed this. Perhaps Expertisefinder (above) could help to change that. However, another suggestion arising from the idea generation was the concept of the ‘Library Envoy’.

Library Envoy goes beyond the idea of the student or research representative sitting on the library committee to represent the needs of their user group. With this model, library staff actively seek potential ‘envoys’ for the library service (rather than assigned reps). These envoys would be individual researchers within a research group, PhD room, or other close-knit group of research students. They would be informally briefed in-person once or twice a term by a library staff member on library services, tools and support, so that they could act as a more effective go-between, disseminating information about the library offering to their peers. An incentive might need to be offered (e.g. coffee and cake, or perhaps additional loans) but the person selected would ideally be positively predisposed towards the library (as we discovered some of the Snapshot participants to be) and therefore willing to get involved in this way. We noted that when participants were in possession of what they regarded to be ‘secret library knowledge’ they enjoyed passing this information on by word-of-mouth to their peers. Many also described very positive relationships with library staff and a definite interest in the expertise they possessed. The Library Envoy role therefore seizes on an existing opportunity. Peers listen to, and go to, peers first and this envoy role exploits that reality rather than expecting the library service message to filter through at some point, or for the information detailed in library induction session to stay with users throughout their time in Cambridge. Library staff attempt to build relationships with different user groups as a matter of
course, but Library Envoy seeks to take the idea a stage further, with a view to improved library visibility, service usage and understanding.

Benefits:

- Increase visibility of library expertise and services
- Increase communication and connections between library staff and researchers
- Disseminate information about libraries and library services on a more local scale, within smaller groups of users
- Learn more about current information and research behaviours and needs from individual researchers and research students

8.4 Embedded Librarians

Another way of addressing the separation of library services from peer communities is to join them at the research coalface as ‘embedded librarians’. Far from being a new idea, the embedded librarian model has been explored in academic libraries to greater and lesser degrees (particularly in health librarianship) for well over ten years now. This study’s findings about peer consultation and information seeking behaviour, with its researchers unsure who to approach or where to go for research assistance other than those who they are working alongside, highlight the potential value of the embedded librarian role.
The Embedded Librarians solution is one that Futurelib has been keen to explore for some time, with a research project on this topic already underway for which a literature review has begun. As part of this new project we are particularly interested in a definition of ‘embedded’ which sees librarians actively working alongside researchers within their research groups, ideally becoming a trusted colleague and peer. The overall aim of the project will be to discover some of the key responsibilities, knowledge, tools and personality traits required of an embedded librarian and, as far as we can, to judge the value and efficacy of such roles.

Benefits:

- Library staff presence in research environments at the point of information need
- Libraries becoming more embedded in Cambridge research practice and activity
- Increase understanding for researchers of library expertise, roles and value
- Increase understanding for librarians of researcher needs and behaviours

8.5 Stat-wise

This study found that many participants were overwhelmed by the vast array of statistical packages available to them. They were also often unsure as to which package would be suitable for different tasks, and were relatively unschooled in the use of many of these tools. Amongst others, participants mentioned using SPSS, NVIVO, R, Stata, MatLab and MS Access. They stated that although the University offered training sessions in some of these packages, they were not conducted often or promoted visibly enough. Participants had to actively look for the support they needed with these tools and were often found wanting.

This scenario represents an opportunity for library staff to help users find a path through the maze. ‘Stat-wise’ would be a new ‘one-stop-shop’ portal for guidance on statistical packages, detailing how to access and use them, together with associated University licence information. It would also serve
as a directory of the support offered for these services and put users in contact with library (and other) personnel trained in their use. The service would require collaboration with UIS and departmental staff in order to deliver this joined-up Cambridge-wide solution.

Benefits:

• Offer collated statistical package support, information and training
• Increase awareness of library staff as experts in this area
• Promote statistical packages to which the University subscribes
• Increase library presence in the research process
• Increase visibility of library staff within the University
• Increase professional development for library staff

8.6 Intra-library loans and book drops

This research has once again surfaced requests for a Cambridge-wide intra-library loan service to help researchers who are dealing with heavy workloads and serious time constraints. Participants also requested ‘book drops’ (drop-off points) at locations around the city, which was also one of the recommendations arising from Futurelib’s WhoHas study.

Benefits:

• Make access to printed materials convenient and quick
• Streamline research process
• Increase use of available printed materials
• Increase collaboration and cooperation between libraries

8.7 ‘Quick-fix’ suggestions

The above service design suggestions are the sort of innovations that would require a significant investment of time and money. However, Snapshot has also helped us to identify a number of smaller scale opportunities for Cambridge library services.

• Many participants requested twin-screen terminals to suit their research practice. Those PhDs and Postdocs working in library spaces rather than dedicated offices would especially benefit from such provision.
• Participant use of and commitment to paper and pen was striking. There is an obvious opportunity here for libraries to sell or provide library notebooks. These notebooks could, of course, also promote library services and available expertise on the inside or back covers.

• The role that Google Books plays in today’s research process should not be ignored. As one participant suggested, librarians should accept that the platform is used for literature search and review and incorporate best practice use of Google Books into teaching sessions and demonstrations.

• To combat the perception that library staff are somewhat invisible, library staff could make themselves known to their users via physical staff photograph boards in libraries/on library doors and, where appropriate, online as well.

• As Futurelib’s ‘Protolib’ project also revealed, mental and physical wellbeing are priorities for our users. Library staff should consider how their services might encourage and facilitate health and wellbeing in libraries.
9. CONCLUSION

The Snapshot study offered significant insights into the information and research behaviours of Postdocs and PhDs at the University of Cambridge, highlighting a variety of service design opportunities.

By adopting a cultural probe as our research method we were able to uncover a holistic picture of how our participants accessed information, the routines they followed, the choices they made and crucially, what opportunities there were to improve their experience of library services.

As a result of not focusing solely on libraries and instead taking an interest in all of our participants’ activities and reflections over the two-week period of the study (in other words, an ethnographic approach) we were able to better understand how libraries and library services fitted into their wider research lives. We discovered how important each individual’s immediate peer community was, the significance they placed on inter-disciplinary collaboration and to our surprise, just how important good old-fashioned pen and paper are to today’s researcher.

The main message for libraries was that our services beyond physical library spaces and book circulation are not known enough, particularly in terms of the expertise and the support we can offer. There is a very real opportunity here as the type of support and assistance that the University’s library staff are able to offer is definitely required. Our participants told us they were looking for this help, but both physical and virtual barriers, along with a lack of visibility and promotion, are currently preventing this offer from being taken up.

There were some limitations to the study. The sample size was not huge, but clear themes, patterns and behaviours still emerged. In terms of the volume of material we received we were in fact relieved that the number of participants had not been larger, as the amount of resulting data would
have overwhelmed us. We are also aware that this study represents just one step along the road towards the potential solutions we have started to outline. Further research would be required to test their value and relevance through piloting, iteration and refining, especially in respect of actual user behaviour. Testing of the new service ideas suggested here with participants would establish whether they would offer real, rather than perceived value. The above caveats aside, there is no question that this research study has offered us an illuminating snapshot of Cambridge research life and we are excited by the possibilities that have arisen from it.

Andy Priestner & David Marshall

Futurelib Programme
Cambridge University Library
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Contact Futurelib:
Email: futurelib@lib.cam.ac.uk
Web: http://www.lib.cam.ac.uk/futurelib
Blog: http://futurelib.wordpress.com
Twitter: @futurelib

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