Employing UX research methods to design better library services

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‘Road to Damascus’ moment – there was a whole world of user research methods that I’d never encountered
Once I'd decided to engage in ethnographic research: revised a post within my library service to incorporate this activity. Renamed as 'UX Librarian' as concerned with exploring and improving all aspects of User Experience (UX) (I advocate a broader definition of UX - not just about websites and usability)

User Experience research methods – how users actually experience our services, a more holistic approach
Did all library schools have a secret pact when it came to user research: ‘we will only teach survey design’
Or had they just been lazy, complacent, or both?
Whatever the reason, librarians chiefly rely on traditional surveys when researching users.
“What’s the problem?”
Business school students would respond to surveys telling us our service was excellent
### Pros
- Quick to produce and fill in
- Straightforward to analyse
- Easy to distribute
- Universal understanding

### Cons
- filled in by pro-library users
- self-reporting is unreliable
- mainly quantitative data
- closed or leading questions
- frustrating to complete
- too long
- survey fatigue
- don’t reveal how users truly behave or feel
‘What people say, what people do, and what people say they do are entirely different things’

Margaret Mead
anthropologist
(1901-1978)
30 years ago in April 1985, the Coca-Cola Company announced a change to its nearly century-old secret formula. The new Coke would have a smoother, sweeter taste to rival Pepsi.

They’d done their market research – the majority of 200,000 consumers said they preferred the new recipe – so Coca-Cola were absolutely sure it was going to be an instant hit AND give them competitive advantage over Pepsi-Cola.
The American public hated it.

In California they collected signatures, in Seattle they set up a hotline, panic buying.

Protest groups emerged: ‘The Old Cola Drinkers of America’ and ‘Preservation of the Real Thing’ which were relentless in their pursuit of the return of original Coke.

They set up petitions, made badges and t-shirts which had slogans such as ‘Bring back original Coke or our children will never know true refreshment’(!)

Bowing to popular demand in July 1985 Coca-Cola brought back original Coke as ‘Coca-Cola Classic’. ‘New Coke’ became ‘Coke II’ but was later withdrawn, while the word ‘Classic’ was quietly dropped from the old formula cans.
The story of ‘New Coke’

So what went wrong?

200,000 consumer testers had told Coca-Cola they preferred the taste of new Coke

- This preference was not enough – it was far more complex than that
- Emotional bond with the original Coke
- Drinking it from the packaging was a different matter (‘it tastes wrong’)
- Wanting to please the testers?
- What people tell you they will do (e.g. buy your product) is not necessarily what they will do

Same is true of library survey data – **IT IS NOT TRUTH**
We librarians love pie charts and pretty much all data. But what does the data we collect really tell us?

https://flic.kr/p/96yRJC
library footfall stats - don’t tell us how successful those visits were
same goes for database visits – did they find what they needed?
does a high teaching score equal knowledge and learning?
Focus Group
(second choice after surveys)
Librarian: So what do you think of the library?
User: It’s nice, I like it.
Librarian: Any particular service you like?
User: Most of them.
Librarian: What about the library staff?
User: You’re all really nice <slight pause>
    Do I get pizza now?
“It’s really hard to design products by focus groups. A lot of times, people don’t know what they want until you show it to them”

Steve Jobs
“Users don’t think about libraries all that much. They use them but they don’t think about them. They’ve got much more interesting things to think about than how to help us improve our services”

Andy Priestner
Adopt new forms of user research, specifically, UX research
a whole new world of techniques

- observation
- behavioural mapping
- semi-structured interviews
- cultural probes
- usability testing
- cognitive mapping
- contextual inquiry
- affinity mapping
- diary studies
- card sorting
- photo elicitation interviews
- graffiti walls
- love letters/break-up letters
- touchstone tours
- think aloud protocol
largely hinged on ethnography (‘writing culture’) studying people through observation and participation
ethnographic research: uncovers user experience - habits, routines, lives
...and crucially in terms of library services those touch-points, or points of contact with our users, that are failing e.g. website, staffing, furniture & layout, signage etc.
Psychic experiment: Which of your library touchpoints are currently failing users?
What does ethnography involve?

Offering a far more complete – and complex – bigger picture of our users’ lives, behaviours, and needs.
We should seek to uncover complexity.
Nothing in life is as simple as it appears.
Our users and their behaviour are no exception.
my first tentative UX research ‘baby steps’

• behavioural mapping (how people moved about the library)
• cognitive maps/interviews (user learning landscape)
• graffiti wall (barrier-less feedback)
Revealed MANY failing service ‘touchpoints’ that years of surveys had not...

- irrelevant and confusing website content
- inconvenient layout
- lack of PCs
- inaccurate perceptions of BYOD culture
- not enough opportunity for dialogue
- too much library jargon
- air conditioning/heating problems
- uncomfortable furniture
- staff were the main noise problem!
- unrealistic expectations of their activities
Observation
A pan-Cambridge innovation programme delivering new library products and services derived from UX research which recently conducted a massive observation project – 317 hours!
Method:
• Observe users in a library space for a set period of time at regular intervals
• Make extensive notes on what they are doing, what equipment they have with them, whether they are came alone or with others, if they take breaks...
• Record movement in the space and occupancy/popularity
Method:
• Note arrival and departure times
• Give everyone a letter code and use that when describing their activities in the observation log (and have some fun people-watching)
• Over several observations, record popularity of seats/furniture

12:29
H switches a lamp on. D is still chuckling away about something. E is typing away furiously

12:32
E is now writing notes up besides laptop but is no longer typing on it

12:36
Although lots of people have books with them. Only B and G are actively using them at this time. Actually G is just now on his phone again checking something. He often reads his book by holding it up in the air

12:37
L returns carrying a water bottle. She plugs in her phone, presumably to recharge.

12:39
P arrives and takes the last seat at the 3rd desk
Results of observation at 4 Cambridge prototype spaces:

- Removing seats increased occupancy
- Sofas did not encourage socialising just more relaxed spaces
- Wellbeing dictated people’s choice of environment
- Sense of control of space was important even if not acted upon
- People moved between different spaces depending on activity
- Tables were most popular items of furniture in a break space
- We need to provide more medium and low intensity environments
Cognitive Maps
Method:
• Ask participants to draw a map of their learning landscape: Where they study, how they study, who with etc.
• 6 minutes: 2 minutes with blue pen, then red pen, then black pen
• Ask them to annotate the map with explanatory text
• Analyse the map: What did they draw? What did they draw first? Where did they draw it on the page? What was omitted?
Results of cognitive map study with business undergraduates:

- Library only part of a wider picture of study experience (parks, bars, cafes)
- My library was not the centre of their lives, not even the centre of their study lives!
- Students chose different libraries for different study activities
- Map proved to be a hugely useful way into a wider discussion of needs and issues
Cultural Probes
Nothing to do with alien abduction!
Closest we can get to the ethnographic ideal of following the subject home – finding out how and where they study – over a 2-week period
Mission pack of materials: diary; USB stick; pens; task envelopes, writing paper
Diaries pre-loaded with questions – seeking entries reflecting on their library and study experiences.

Friday 10th June

Question: 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?
Tasks: sending a love letter or break-up letter; cognitive map; photos of their study life
Affinity Mapping
Where does ‘library’ actually fit within the wider student experience of University? And what does that landscape look like?
‘Detail your entire experience of University life – warts and all – with one element per sticky note. Use as many notes as you need.’
<table>
<thead>
<tr>
<th>sports</th>
<th>eating out</th>
<th>shopping</th>
<th>clubs &amp; societies</th>
<th>summer ball</th>
</tr>
</thead>
<tbody>
<tr>
<td>student union</td>
<td>cinema</td>
<td>sex</td>
<td>alcohol /bars</td>
<td>coffee &amp; cafes</td>
</tr>
<tr>
<td>travel</td>
<td>music</td>
<td>girl/boy-friend</td>
<td>drugs</td>
<td></td>
</tr>
<tr>
<td>theatre</td>
<td>town</td>
<td>house parties</td>
<td>friends</td>
<td></td>
</tr>
</tbody>
</table>

**SOCIAL**
<table>
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<tr>
<th>essays</th>
<th>tutorials</th>
<th>course staff</th>
<th>IT support</th>
<th>printing</th>
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<tbody>
<tr>
<td>readings</td>
<td>study space</td>
<td>exams</td>
<td>lectures</td>
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<tr>
<td>practicals</td>
<td>project work</td>
<td>data</td>
<td>revision</td>
<td></td>
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<tr>
<td>timetable</td>
<td>library</td>
<td>deadlines</td>
<td>PCs</td>
<td></td>
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</tbody>
</table>

**COURSE**
<table>
<thead>
<tr>
<th>communal living</th>
<th>managing money</th>
<th>your room</th>
<th>packing &amp; unpacking</th>
</tr>
</thead>
<tbody>
<tr>
<td>laundry</td>
<td>health</td>
<td>cooking meals</td>
<td>counselling</td>
</tr>
<tr>
<td>buying food</td>
<td>home -sick</td>
<td>cycling</td>
<td>disabled access</td>
</tr>
<tr>
<td>calling home</td>
<td>getting from A to B</td>
<td>stress</td>
<td></td>
</tr>
</tbody>
</table>

DAY-TO-DAY
Of these, only around 10 are library-related...
A research project not centred wholly on library
Spacefinder idea was derived from ethnographic research:
diary studies; collaborative design workshops; interviews
We learned from this research that students were not finding spaces that matched their study preferences and that these needs were hugely diverse...
study preferences

in groups; totally alone; ‘together alone’; alone but in crowded quiet reading rooms; alone but in a noisier location
types of space used
cafes, pubs, parks, common areas (not just libraries)
Spacefinder would seek to illumine and uncover the University’s many spaces and match them to study needs and preferences.
ethnographic / design research was continuous during the project through prototyping, testing and iterating.
Parker’s Piece

This wide open space is located between Mill Road and the centre of town, and is easily accessible by foot or bike. There are trees and benches around the edges of the common, and various eateries nearby (including cafe and chairs at one)

The Free Press

A small, cozy pub that is quiet during the day and lively in the evening.

Geography Library - Computer Area

A small area with computing facilities. Includes an exhibition area showcasing some of the research carried out by members of the department.

Geography Library - Reading Room

Main library reading room
The website that'll change your studying life forever

Story: Jenima Jobling  Twitter: jenima_jobling

OCTOBER 21, 2015

Recently around your faculty libraries (or if you were courageous and sharp-elbowed enough to brave the freshers’ fair) you may have spotted these rather distinctive-looking, compass-bearing key rings. You may have walked on by, eager to start the term right and get to your impending lecture on time for once. But next time you pass through the library, stop, do a double take and pick up what could be the answer to all your studying woes.

Image credit: Andy Fresher

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“I wanted to write personally, to thank you for Spacefinder, and tell you how useful students are already finding it. This is an achievement which shouldn't be underestimated. I thought you might be amused to know that the general response has been one of sheer astonishment that the University have helped produce something so up-to-date and relevant to student life!”

Poppy Logan
(Cambridge University Students Union – Welfare and Rights Officer)
Spacefinder is now an established part of Cambridge University life

**Version 2 has:**

- coloured pins
- disability info
- more facilities
- more images
- more spaces
Spacefinder has been so successful because it fulfils many needs beyond library and recognises a broader student experience and learning landscape...
Survey results, quantitative data, and more importantly a focus solely on library would never have led us to Spacefinder.

We had to become interested in a wider picture of experience and piece that together through UX research.
‘the library in the life of the user not the user in the life of the library’

Lorcan Dempsey
Why does UX matter now?
Yes, it’s interesting, but so what?
1. We need to find out what our users really do, not just what they need
2. Higher service expectations
3. Users and non-users are very willing to participate in these methods
4. Strongly evidence-based approach with very persuasive results
5. Helps us to design services and products that are more relevant and needed
New book ‘UX in Libraries’ published 3 days ago by Routledge

Case studies, theory and techniques, written by

- Library UX practitioners
- Anthropologists
- Designers

‘User Experience in Libraries is an engaging combination of library UX theory and practice. Both those new to the subject and those with more experience will learn from it’

Aaron Schmidt, Principal, Influx Library User Experience
a whole new world of techniques

observation
behavioural mapping
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think aloud protocol
UX research is about exploring and understanding the experience of our users. This being so, why would you choose NOT to adopt these methods?
Thank You.

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