

The University of Hong Kong Libraries

Providing User Experience (UX) to academic libraries

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The University of Hong Kong



把用戶體驗
帶進學術圖書館

香港大學圖書館副館長暨
馮平山圖書館館長胡美華

UX 用戶體驗



“What people say, what people do, and what people say they do are entirely different things.”

(Margaret Mead, anthropologist)

<https://guycookson.com/2015/06/26/design-vs-user-experience/>

用戶體驗定義



- **ISO9241-210标准**：人们對於针对使用或期望使用的产品、系统或者服务的认知印象和回应”

→ 主观 + 不断变化

- **ISO定义的补充说明**：用戶在使用一個产品或系统之前、使用期间和使用之后的全部感受，包括情感、信仰、喜好、认知印象、生理和心理反应、行为和得著等各个方面。

(参考<http://wiki.mbalib.com/zh-tw/用戶體驗>;

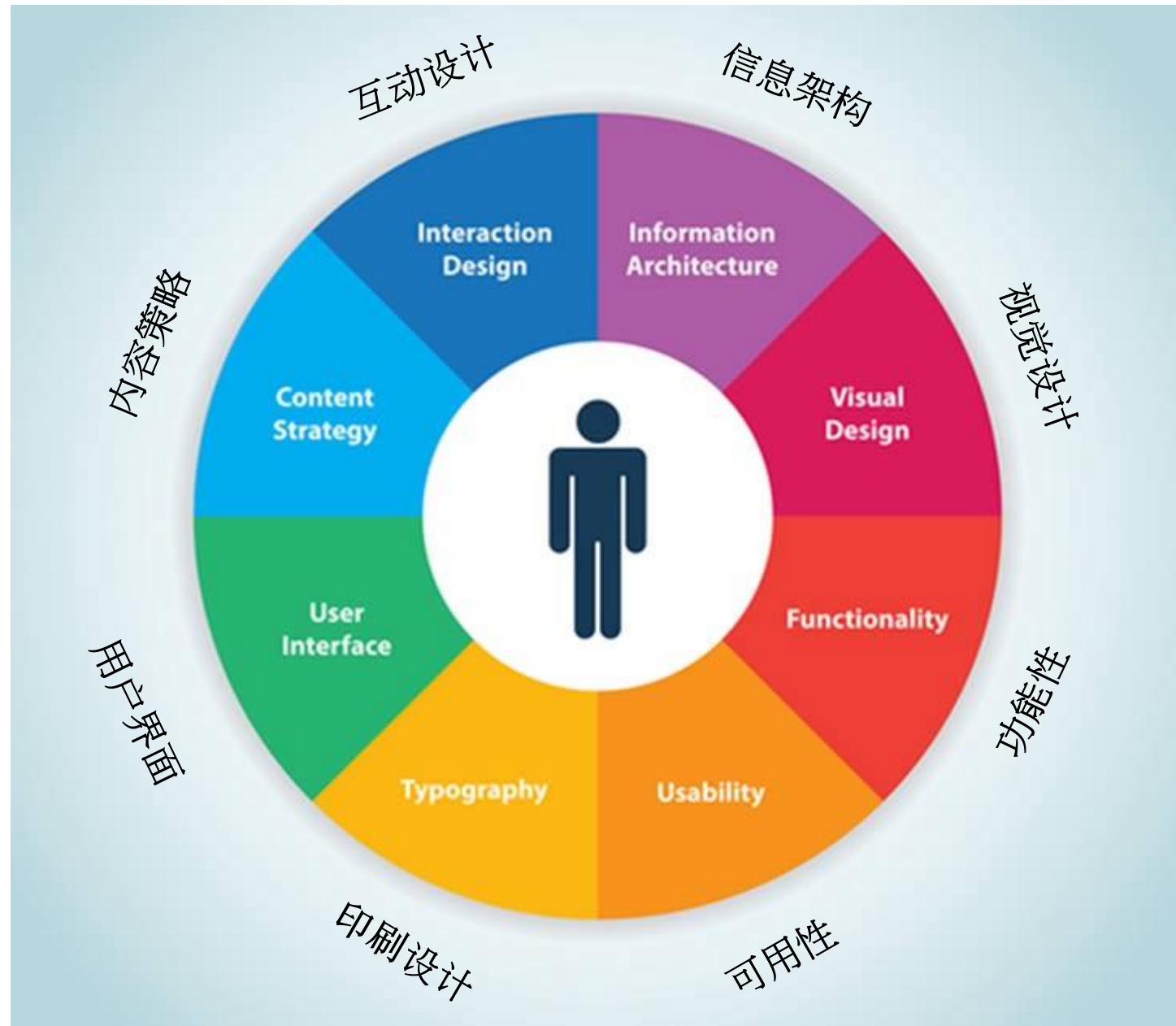
https://en.wikipedia.org/wiki/User_experience)

這個東西好用嗎？
用起來方便嗎？



用户体验的内涵

What is **UX**



<https://usabilitygeek.com/user-experience/>



“poorly designed products can frustrate, anger, sadden, exclude, and even kill people who use them.”

Gautam Krishnan

Hacker | Product Designer at Vitech | Former UI/UX Designer at Zoho

<https://uxdesign.cc/the-purpose-of-ux-you-dont-know-what-you-don-t-know-6a94c0d30023>



用戶體驗研究的價值

- “...the traditional quantitative metrics and measures used by libraries (eg. statistics on visits, holdings, loans, renewals, database use, downloads, views, social media followers, etc.) do not reveal anything about the success or quality of the interaction experienced by the library user and ultimately the **value or impact** that this has **on the user.**”
- “...look at how and why library users use libraries in the way that they do ... in order to better understand **what users want** from libraries.”

(Appleton, L. (2016). User experience (UX) in libraries: let's get physical (and digital). *Insights*, 29(3) , 224–227.)

用戶體驗研究目的 UX Purpose

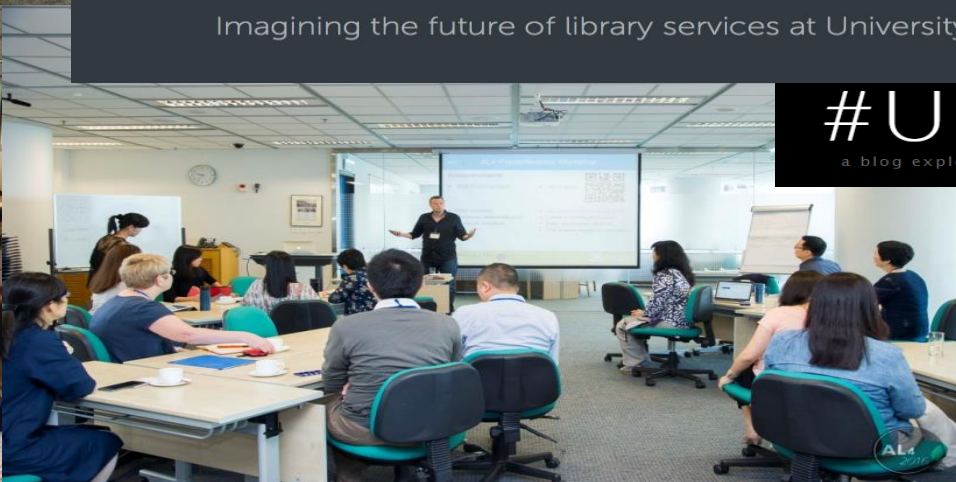
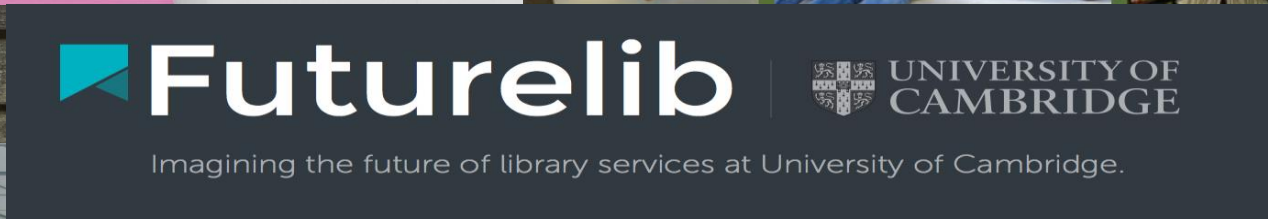
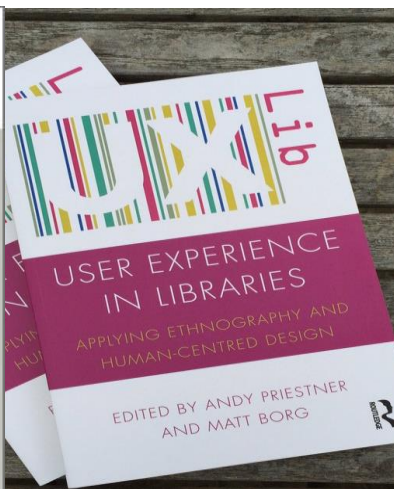
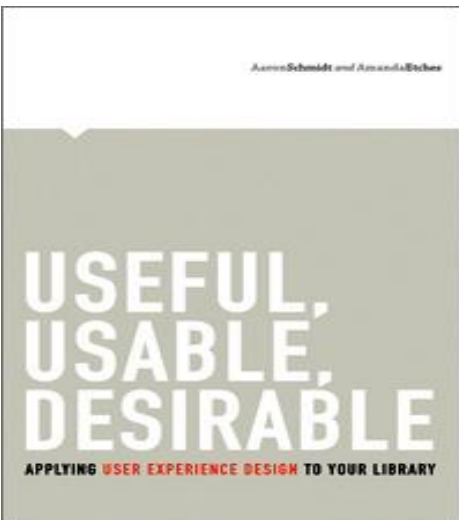
- 觀察和找出用戶需求和行為
 - 做得好的可以繼續或稍作微調，使其更為完善。
 - 做得不好的可以重新思考，運用以用戶為中心的設計流程提昇服務設施。



用戶體驗研究方法 **UX** Methods

- **observation** of user movement in the library (to see where users naturally physically travel to within their library spaces as opposed to where the librarians think they travel to)
- **observation** of activity within given spaces (to see how users naturally behave in demarked spaces and environments)
- **walking** through library spaces with users to **observe and discuss** how they use the library
- focused **discussion** with library users about what works for them and what does not
- **diaries and reflective exercises** about users' experience of the library
- **observation** of alternative library- or service-oriented spaces
- directed **storytelling**
- unstructured **interviews**
- **photo studies**
- **cognitive mapping**

用戶體驗研究 UX research



Academic Librarian 4

Sustainable Academic Libraries: Now and Beyond

2-3 June 2016

A conference on the 25th Anniversary of HKUST



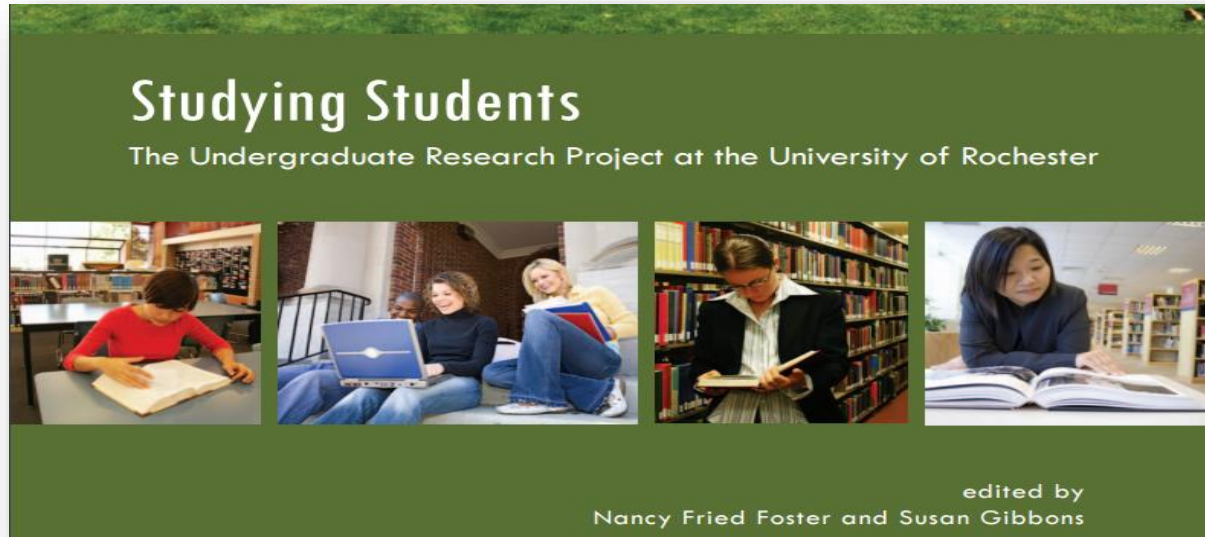


FutureLib at Cambridge University

(<http://www.lib.cam.ac.uk/research/futurelib-innovation-programme>)

- Explores the future of academic libraries at Cambridge
- Uses ethnographic research methods and human-centred design techniques
- Examines current user experience (UX) of the libraries

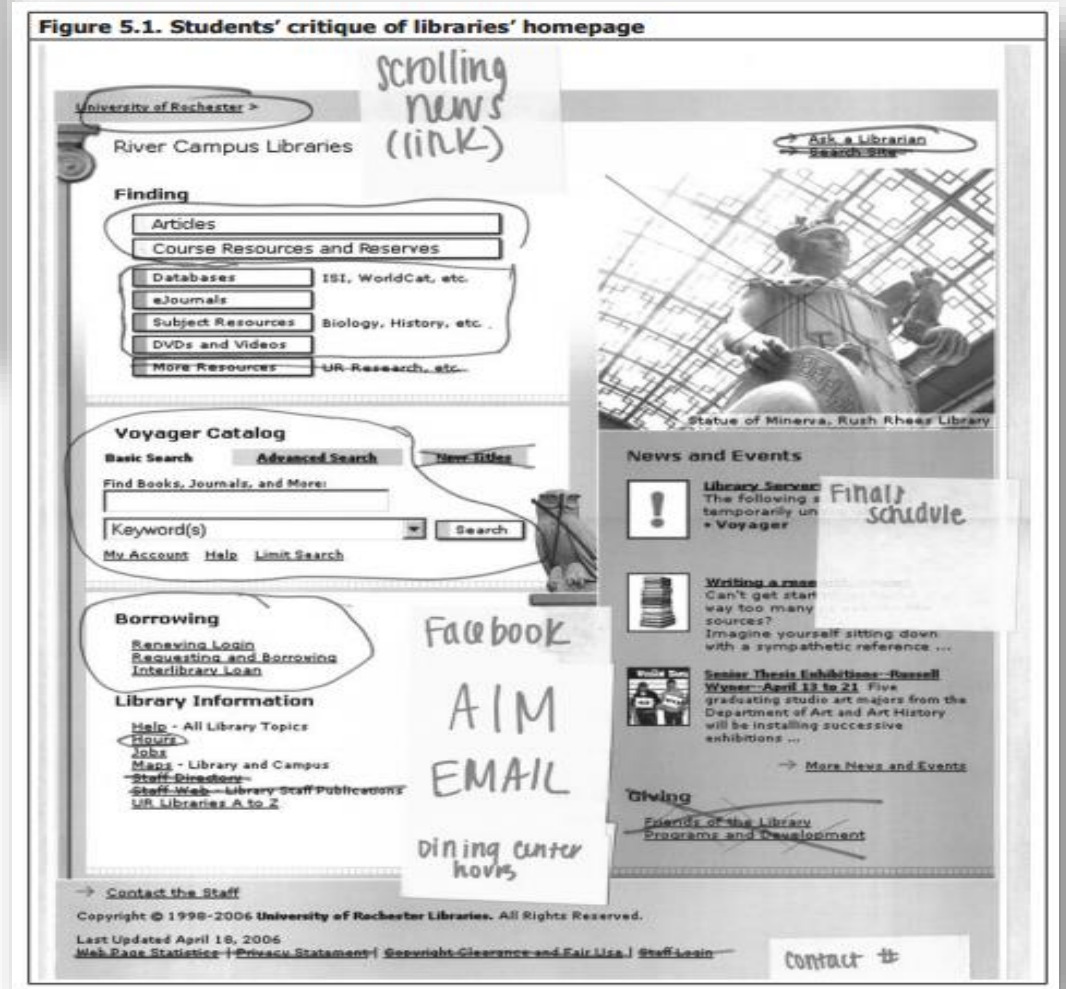
Eye-tracking experiments at Cambridge University Libraries in 2016



Ethnographic research on University of Rochester (USA) library users, published in 2007

Research question: “What do students really do when they write their research papers?”

- Interviewed faculty and students
- Research sub-streams included: successful and unsuccessful research strategies, library and non-library resources that students commonly use
- Data gathered through interviews with photos and maps as prompts

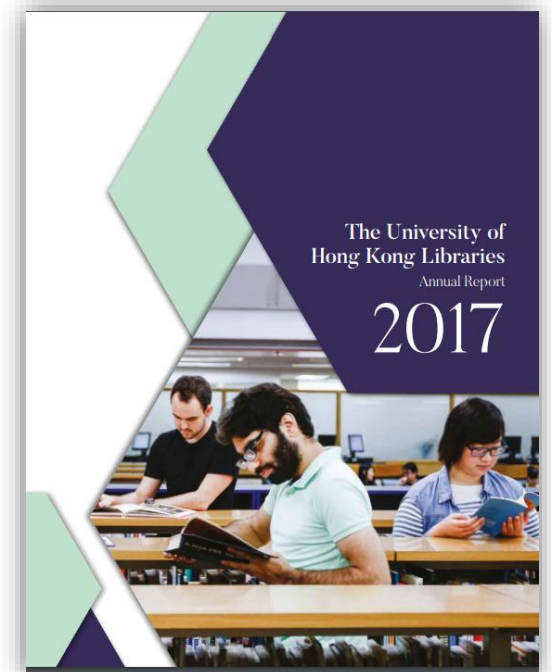
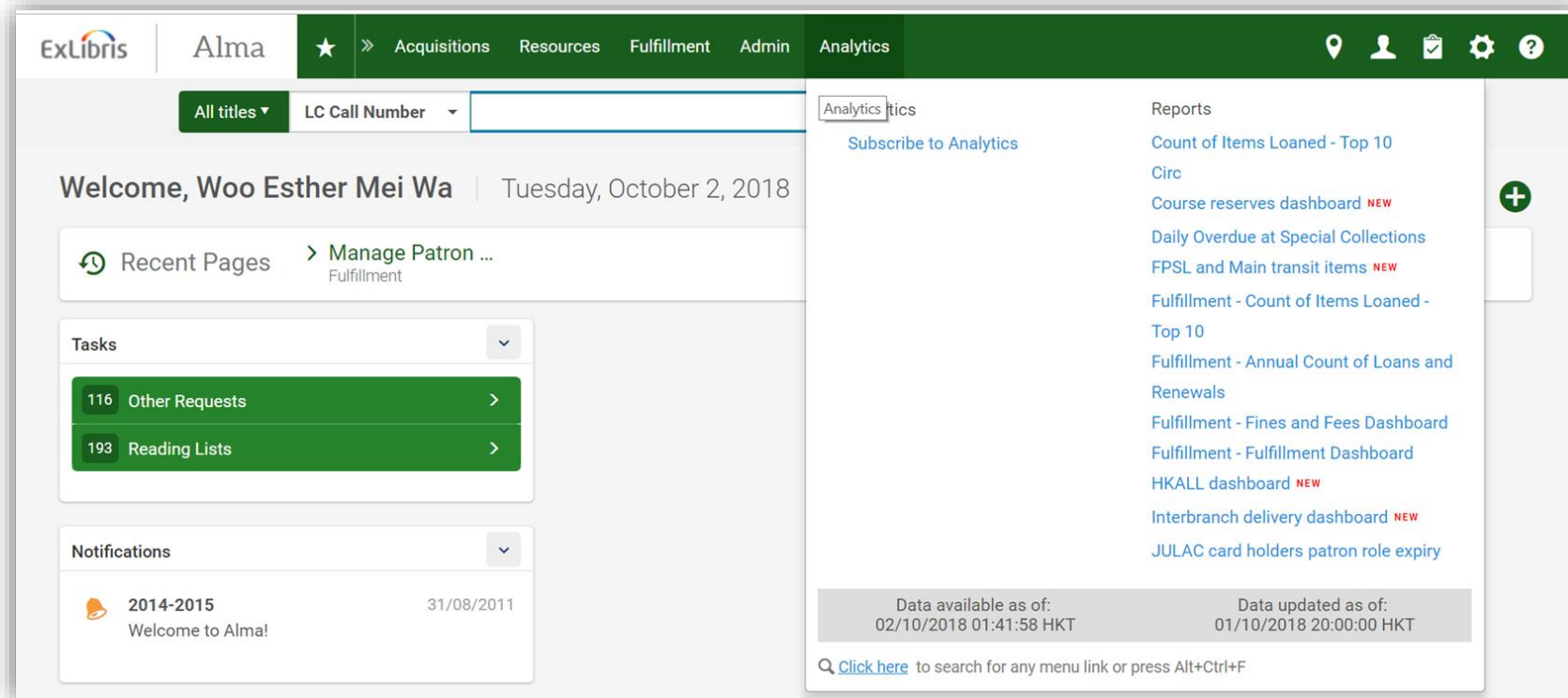


http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/booksanddigitalresources/digital/Foster-Gibbons_cmpd.pdf

2016年前香港大学图书馆进行的用户体验研究

一般收集質量數據的渠道

- 年度藏書統計
- 年度服務及設施用量
- 課程評估
- 用戶調查（每兩年）
- 讀者意見和提議



2016

**Patron Experience
Librarian
Melissa Man**



**Plus interested
staff and
library school
student interns**



- Track **user behaviours, needs and trends** by :
 - Compiling and analyzing usage statistics, comments and suggestions from patrons
 - Conducting qualitative and quantitative user needs/usability studies
 - Consulting groups representing various library stakeholders.
- Utilize user input to collaborate on and contribute to the creation, development and implementation of **innovative activities, projects, services** and facilities that enhance user experience.
- Anticipate and keep **library staff** abreast of patrons' needs, preference and trends
- Coordinate the Libraries' **web presence**.
- Suggest ideas for design, contents, location of **library signage**.

研究伦理道德 Ethical Concerns



The University of Hong Kong

Research Services
Support and information for HKU researchers

Quick Links Search this site

Home > Research Integrity > Research Ethics Compliance > HREC

Human Research Ethics Committee (HREC)

In line with the HKU Policy on Research Integrity, Principal Investigators (PIs) who are academic/research staff members or research students (MPhil/PhD) in Faculties other than Medicine and Dentistry should apply to the Human Research Ethics Committee (HREC) for ethical clearance for research involving human participants.

There is no deadline for applications for ethical clearance. The processing time from submission of application to notification of approval will normally take not more than 3 weeks, provided that the submitted application form is properly completed with all required documents attached. In addition, PIs of RGC GRF and ECS proposals are cautioned particularly to submit their applications for ethical approval by not later than end of February, as in accordance with the RGC's ruling, where such ethical approval has not yet been obtained by the RGC deadline (normally set on April 30), the application will be rejected.

PIs are responsible for ensuring that such ethical approval has been obtained prior to any data collection/analysis. Research students (MPhil/PhD) are also responsible for ensuring that their students have obtained such ethical approval prior to any data collection. Failure to obtain necessary ethical approval will cause rejection of research proposals and require recollection of data and possible disciplinary action.

Applications for ethical approval should be submitted to the Secretary, Human Research Ethics Committee, c/o Research Services, Knowles Building, the University of Hong Kong.

Libraries

We are currently conducting behavioural mapping as part of the Libraries user experience research. The data collected is anonymous and may change without notice. If you have any questions or concerns, please contact the research team.



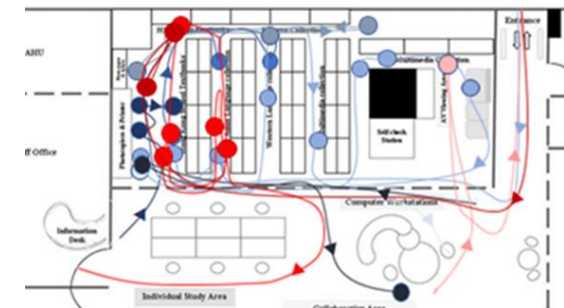
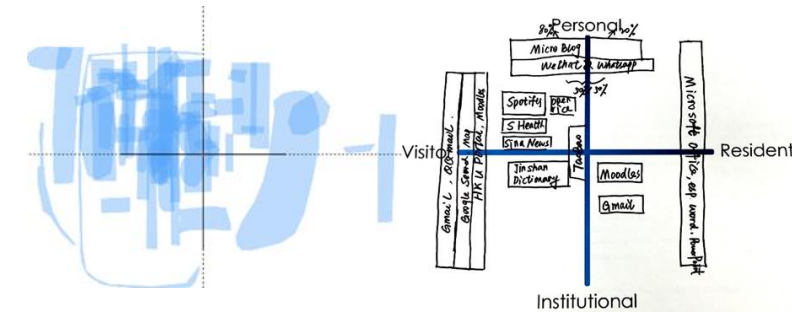
<http://www.rss.hku.hk/integrity/ethics-compliance/hrec>

Approval required:

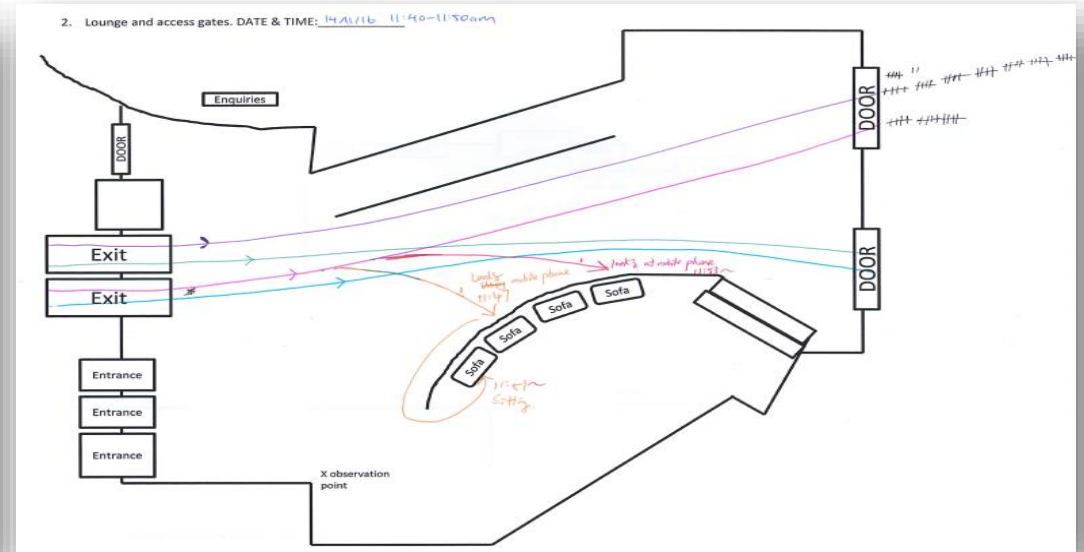
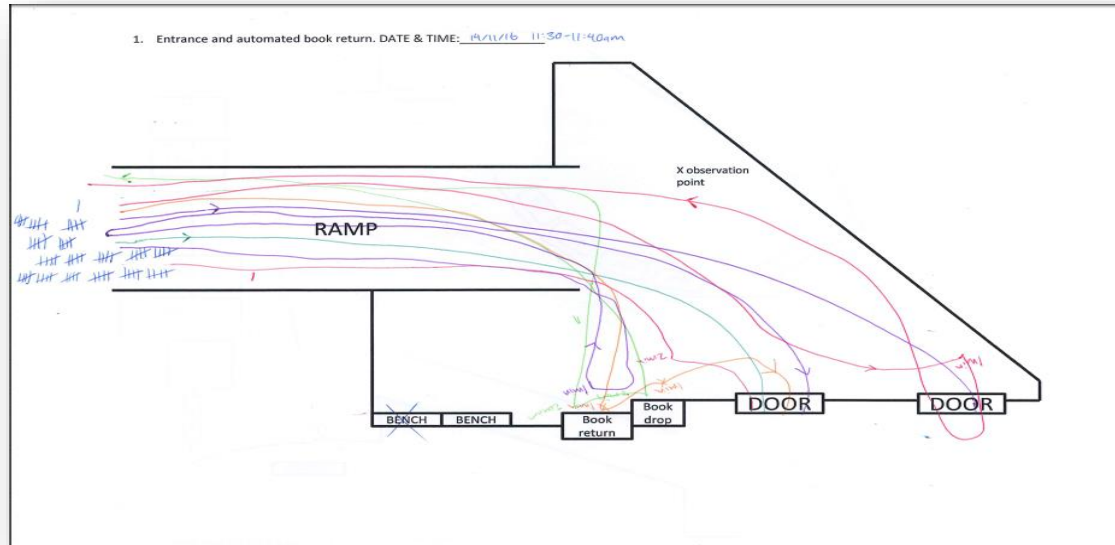
- HREC reviews “any research protocols involving human participants”
- Observation is a form of “collection of new data from human participants”
- Waiver of informed consent received

已完成的項目 Projects completed

- 2/F new library entrance and user behaviours
- OCLC Digital Visitors & Residents
- User survey 2017
- Level 3 (Library commons) review
- Design of new learning spaces on G/F & 2/F Main Library
- Medical Library's standing workstations
- Education Library's shelving area
- Webpage revamp (To be continued)



Behavioural Mapping



- 230 minutes of data collected in 2016
- From 5 sites in Main Library: 1) New main entrance 2) Lounge 3) Self-service collection 4) Exhibition area 5) Service counters
- During 11:30am – 12:00pm and 4:30pm – 5:00pm



Non-participant Observation

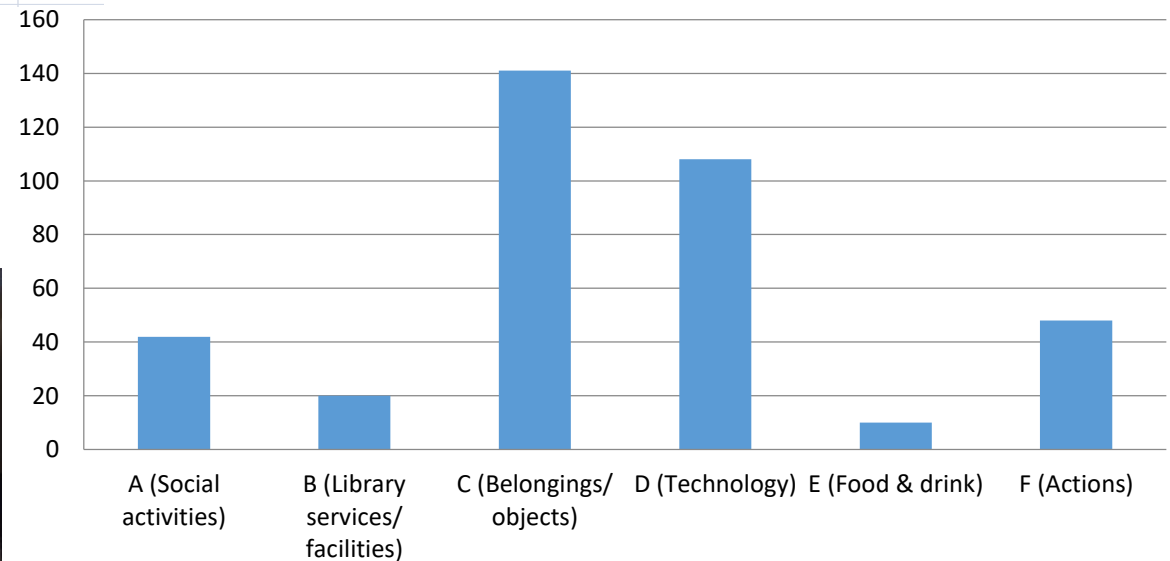
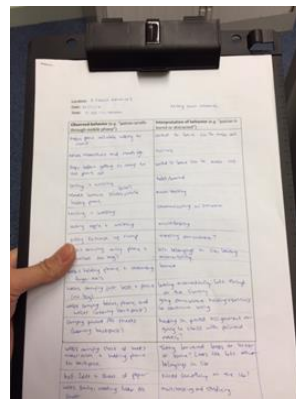
214 observations in 2016 for the new entrance area

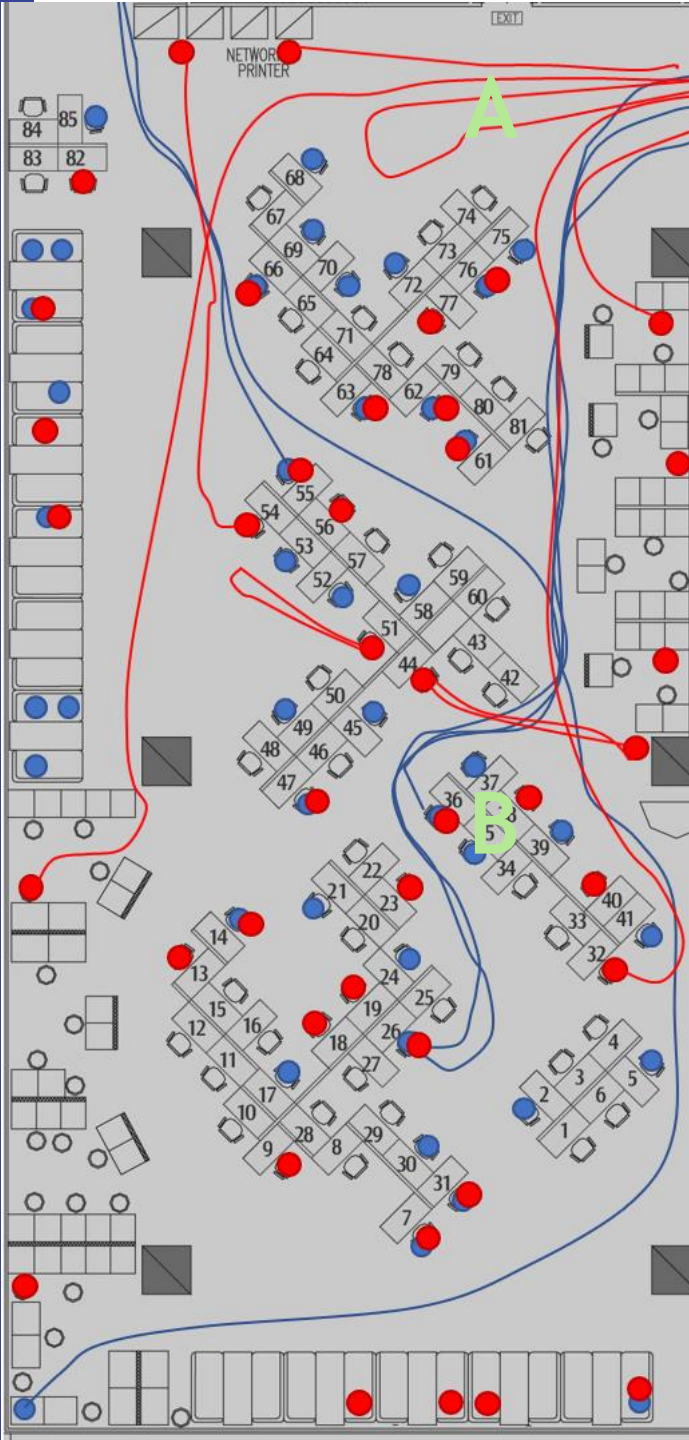
Codes assigned to all observations

Location	Date	Time	Direction	Observed Behaviour	Interpretation	Code 1	Code 2	Code 3
1	21-11-16	11:30 - 11:40	Exit	makes phone call while walkin	waited to leave lib to make call	D4		
1	21-11-16	11:30 - 11:40	Exit	notices researchers and reads	curious	F4		
1	21-11-16	11:30 - 11:40	Exit	stops before getting on ramp t	waited to leave lib to make call	D4		
1	21-11-16	11:30 - 11:40	Exit	texting and walking	habit/ bored	D5		
1	21-11-16	11:30 - 11:40	Exit	reads lecture slides (print) whi	multi-tasking	F7	C4	
1	21-11-16	11:30 - 11:40	Exit	texting and walking	communicating with someone	D5		
1	21-11-16	11:30 - 11:40	Exit	eating apple and walking	multi-tasking	E1		
1	21-11-16	11:30 - 11:40	Exit	pulling suitcase up ramp	travelling somewhere?	C8		
1	21-11-16	11:30 - 11:40	Exit	walks carrying only phone and	left belongings in lib, leaving mon	C6	D3	
1	21-11-16	11:30 - 11:40	Exit	walks holding phone and obser	bored	D3		
1	21-11-16	11:30 - 11:40	Exit	walks carrying just book and ph	leaving momentarily, left things at	D3	C7	
1	21-11-16	11:30 - 11:40	Exit	walks carrying tablet, phone ar	going somewhere, holding essenti	D1	D3	C3
1	21-11-16	11:30 - 11:40	Exit	carrying printed A4 sheets (we	handing in printed assignment or g	C3	C4	
1	21-11-16	11:30 - 11:40	Exit	walks carrying stack of books u	taking borrowed books to locker o	C7	D3	
1	21-11-16	11:30 - 11:40	Exit	half folds a sheet of paper	printed something at the lib?	C7		
1	21-11-16	11:30 - 11:40	Exit	walks slowly, reading folded A	multi-tasking and studying	C7		
1	21-11-16	11:30 - 11:40	Enter	holding a magazine and walk ir	bring it inside and read it	C7		
1	21-11-16	11:30 - 11:40	Enter	watching smart phone	patron is bored	D3		
1	21-11-16	11:30 - 11:40	Enter	holding a starbucks coffee and	hungry and think library is a comfo	E1		
1	21-11-16	11:30 - 11:40	Enter	with a carrier/ luggage	need to borrow many books?	C8		
1	21-11-16	11:30 - 11:40	Enter	most patrons enter into the library with a bag on their back		C3		
1	21-11-16	11:30 - 11:40	Enter	some of them with a hand carried bag		C3		

Codes grouped into categories:

- A) Social activities
- B) Library services/ facilities
- C) Belongings/ objects
- D) Technology
- E) Food and Drink, and
- F) Actions





Level 3 - Technology Zone

- ▶ 55% of users were observed relaxing in the Technology Zone, in which activities like texting, watching videos and playing mobile games were performed.
- ▶ Among those users who were relaxing, half of them were using the desktop provided, two of them were using their phones and one of them was using own laptop.

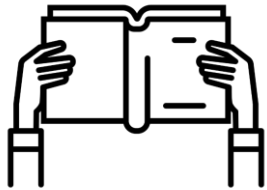
■ 12 Jun 2017 12:45-12:55pm

■ 14 Jun 2017 12:55-1:05pm



Level 3 - Breakout Zone

- ▶ Both bar seats and sofa seats were popular
- ▶ Surprisingly, the express printer high table was also well-used (Area D).



- ▶ 40% of users were observed reading books and magazines in the Breakout Zone. 30% of users were observed relaxing.
- ▶ Users were observed eating all around Level 3 except in the Breakout Zone.

■ 12 Jun 2017 1:00-1:10pm

■ 14 Jun 2017 1:05-1:15pm



学习共享空间检讨总结

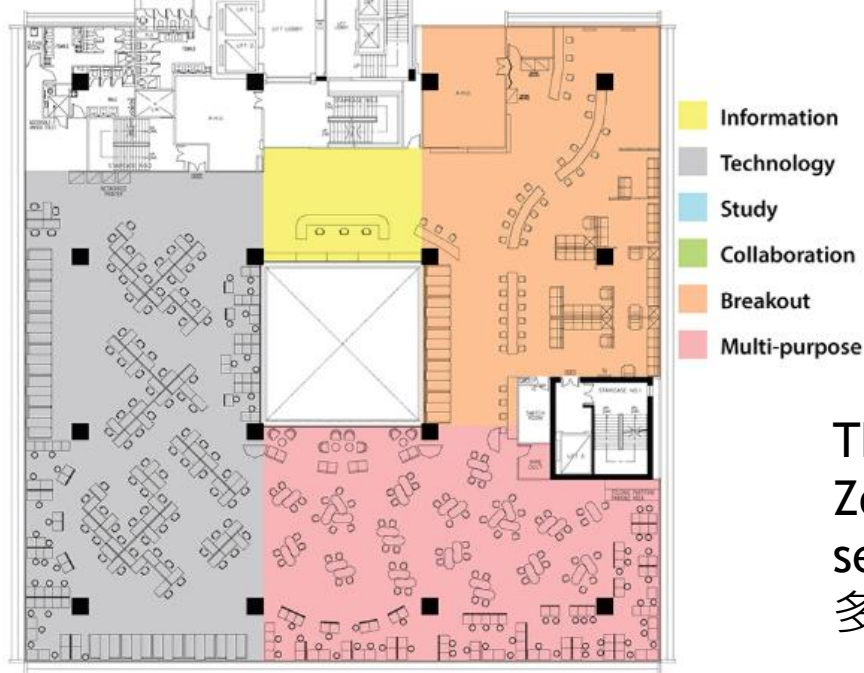
Level 3 Review Conclusion

The Study Zone was used for serious study
研习区：认真研习

The Technology Zone was used for information search, casual study and relaxation
科技区：搜寻资讯,轻松研习及松弛



The Collaboration Zone was used for discussion and multi-tasking
协作区：讨论及同时处理多项工作



The Breakout Zone was used for reading, relaxing, but not enjoying food
休恬区：阅读,松弛但不会享用食品

The Multi-purpose Zone was used for serious study
多功能区：认真研习

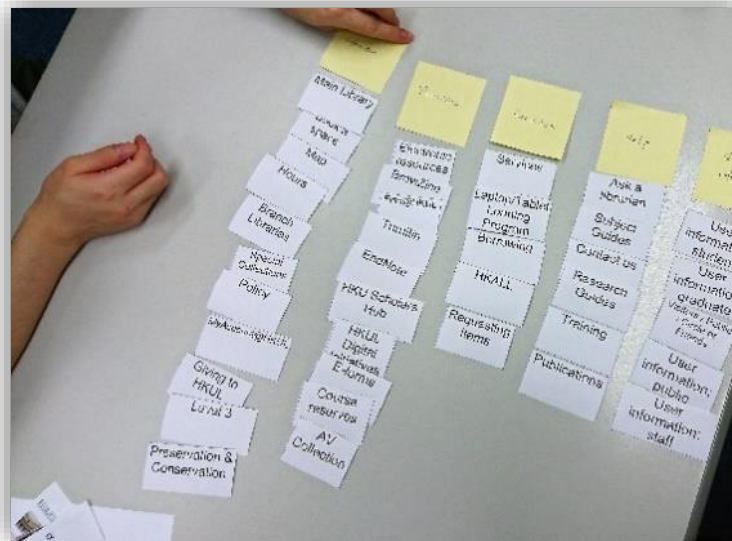
图书馆网页使用调研

Library homepage user study

Research Question: “What kind of Library homepage design
Is most appealing and useful to our users?”

1. Determine how users naturally categorize library services and tools so that we can group them thematically on our re-designed homepage.
2. Discover what types of layouts and features users prefer so that we can incorporate appealing features in our re-designed homepage.

Card sorting



Co-design
homepage
layout

图书馆网页使用调研

Library homepage user study

- 7 Sep 2018
- \$25 coffee coupon as incentive
- Invitation by email and Facebook
- Register to indicate interest AND give consent to participate
- 230 registrants → 15 invited → 7 showed up



Library Homepage Usefulness and Appeal

You are invited to participate in a research study conducted by the University of Hong Kong Libraries. If selected to participate, you will complete a card-sorting and co-design exercise in a four-group setting in the Library, which will be explained in detail. The session will be around 1.5 hours long, and you can choose to stop the exercise at any time without negative consequences. Your personal data will not be associated with the information collected. The information collected will inform the Library's homepage redesign. If you have questions about the research, please contact Melissa Mar (mam@hku.hk). If you have questions about your rights as a research participant, please contact the Human Research Ethics Committee, HKU. The HREC reference number for this project is EA180807.

Thank you for your time and interest in our research.
The University of Hong Kong Libraries

* Required

Full name *

Your answer _____

HKU email address *

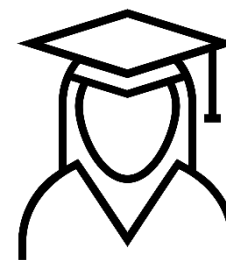
Your answer _____

HKU student or staff number *

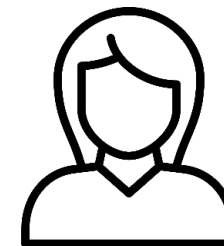
Your answer _____

I understand the procedures described above and agree to participate in this study if selected. I understand that selected participants who take part in the study will be given a \$25 Starbucks voucher. *

Yes



2 Academic Staff
(UMAG and
Microbiology)



2 Postgraduate
Students (Business
and Education)



1 Research Staff
(Real Estate and
Construction)



2 Undergraduate
Students
(Engineering and
Business)

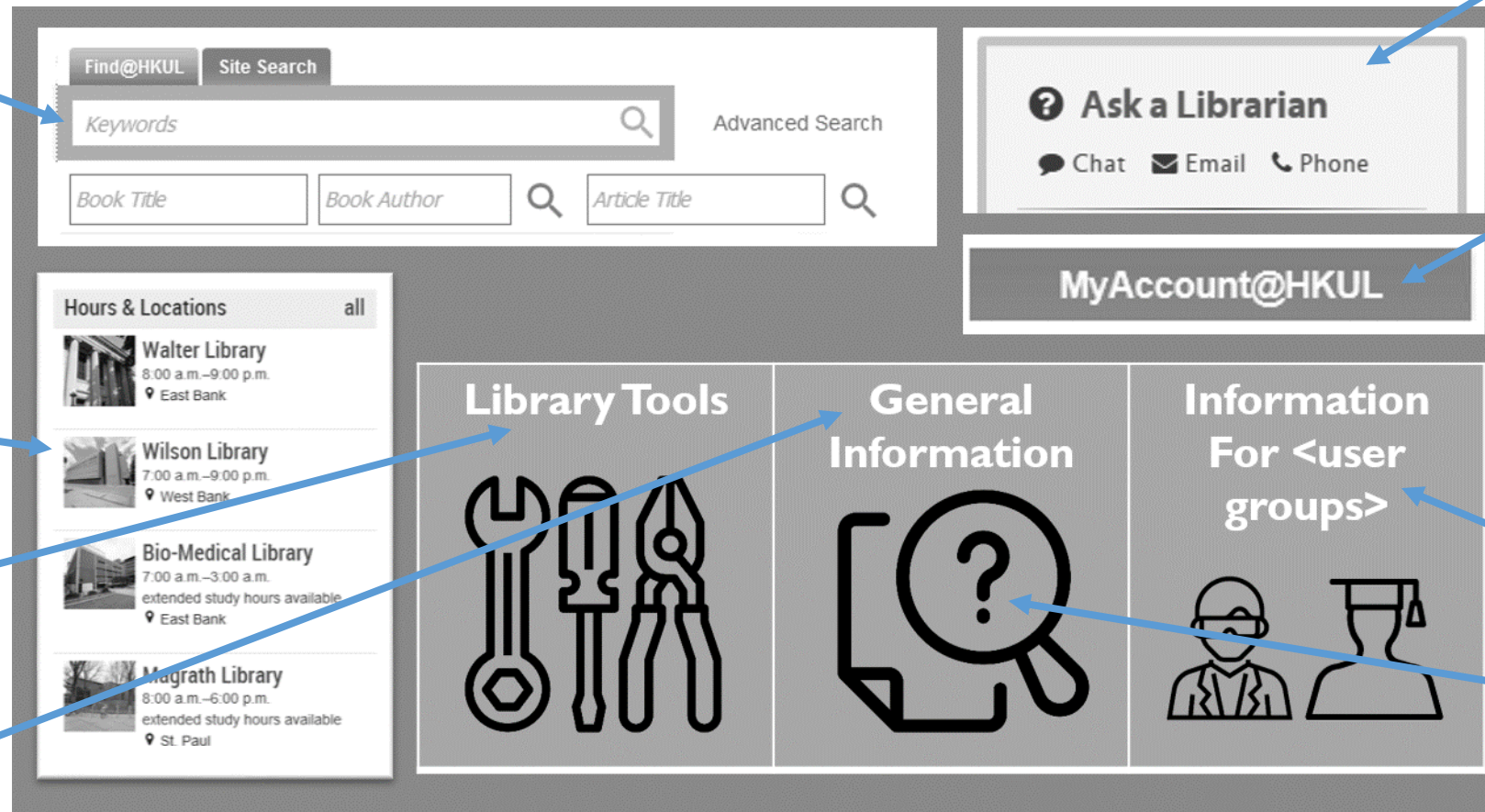
图书馆网页使用调研

Library homepage user study

Prominent search box

Hours and locations at a glance with photo and location

Library tools (active) and general information (static)



Ask a Librarian with options at a glance

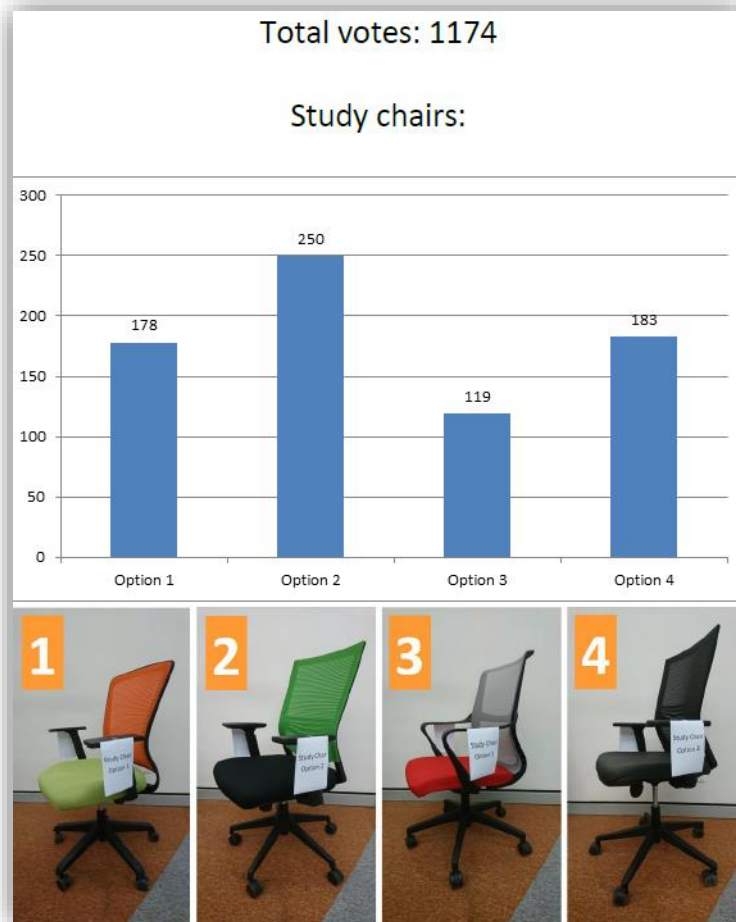
Prominent MyAccount@HKUL

Information for user groups

Simple infographic

总馆及医科图书馆装修读者咨询及坐椅测试

Focus group consultation and furniture trial for the renovations in Main and Medical Libraries

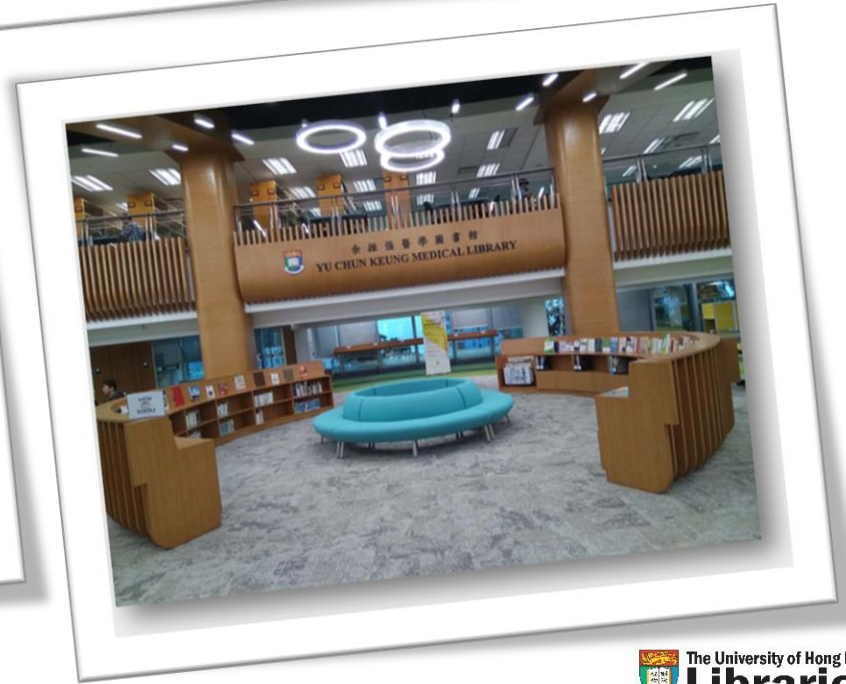


- Student comments and suggestions on:
 - Seating and zoning
 - Room booking and management
 - Computer H/W & S/W needs
 - Printing services
 - New services such as 3D printing/scanning, studio, editing rooms
 - Furniture & environment



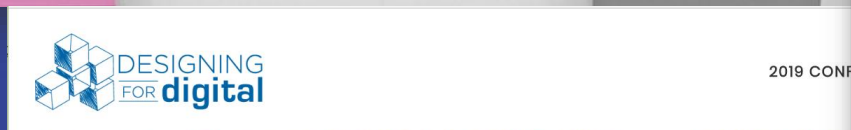
Upcoming UX projects

Signage and self-services for New learning spaces of G/F & 2/F Main Library



用戶體驗交流 UX exchange

The University of Hong Kong Libraries



提升用户体验相关方法

Methods to enhance UX

Design Thinking 设计思维

<https://dschool.stanford.edu/resources-collections/a-virtual-crash-course-in-design-thinking>

HCD (Human-Centered Design) 以人为本设计

<http://www.designkit.org/human-centered-design>



The University of Hong Kong Libraries



谢谢!
Thank You!

