Designing for serendipity and creative experiences in the physical library space

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• how do we get new ideas in everyday life?
• how do ideas spread in society?
agenda

- **libraries = affordance spaces**
  - affordances = usage potentials
  - three-way relation between people, places and possible activities

- **libraries = integrative interfaces**
  - human + physical + digital library resources = integrated whole
  - interfaces = all affordances for user participation and interaction

- **libraries = open-minded spaces**
  - supporting both convergent and divergent user behaviour
  - including creative practices
    - user-to-user mediation, behavioural traces, serendipity
“We shape our buildings, and afterwards our buildings shape us.”

- Winston Churchill
the ways we design a space
shape the ways users may interact with this space
affordances = usage potentials = three-way relation between people, places and possible activities
- **design + mediation = room as a tool**
  = showing clear **affordances** for interaction

- **aim of design + mediation = to motivate users to explore og use info.resources**

- **‘affordance gap’**
  = discrepancy between users’ ‘perceived affordances’ and designers’ ‘intended affordances’

- users may creatively perceive ‘not intended affordances’
users may creatively perceive affordances not intended by designers
libraries = affordance spaces = integrative interfaces

- **interfaces**
  = all contact surfaces + mediation flows between users and info. resources
  = all affordances (usage potentials) for participation and interaction

- **integrated whole**
  = human, physical, and digital parts
  = supplementary and supportive parts for one another

- **users**
  = important co-creators and resources

(Björneborn 2010)
user interface
user interface
point:

- thinking 'integrative interfaces' suggests thinking affordances, design, usability, user participation, ... across all contact surfaces between users and information resources – and not only such features in digital interfaces

- Björneborn (2011)
**strength of physical library**

- only in physical libraries can users have **direct, close encounter** with human and physical information resources
  - face-to-face, tangible, interactive
- we use our **bodies, mobility and senses** when interacting with physical libraries
- we use our **spatial sense** and **tactile sense** to find materials and assess relevance
  - important for many users to **touch** materials
- digital library **supplements** physical library – and vice versa :-)

![Diagram](image-url)
integrative interfaces
participatory libraries provide more affordances for users to take active part in all aspects of managing information & culture:

- learn/ experience/ consume/ reflect/ remember/ ...
- create/ produce/ edit/ remix/ copy/ ...
- find/ search/ explore/ discover/ select/ ...
- store/ save/ organize/ facilitate/ structure/ ...
- share/ mediate/ communicate/ disseminate/ inspire/ ...

(Björneborn 2011)
participatory libraries afford all five facets

- **traditional libraries** mainly provide affordances for users to participate actively in the two facets *find* and *learn*

  ![Diagram of participatory library facets]

- **truly participatory libraries** provide more affordances to participate actively in **all five** main behavioural facets

- i.e. users can **leave** behavioural traces (*create*, *store*, *share*) as well as **follow** such traces (*find*, *learn*) in the library
behavioural traces (Björneborn 2011)

- when interacting with information spaces like the Web or libraries users may leave marks or traces of their activities (indirect user-to-user mediation) that may guide other users to find and use info. resources (social navigation)
indirect, *unintended* user-to-user mediation in physical library
indirect, *unintended* user-to-user mediation in physical library
indirect, *intended* user-to-user mediation in physical library
indirect, *intended* user-to-user mediation in physical library
augmented affordances

- new usage potentials for user-to-user mediation and social navigation
- mobile, ambient, and location-based technologies
- used for leaving and finding digital behavioural traces in physical spaces, e.g. tags, ratings, reviews
- e.g. RFID chips or 2D barcodes
new affordances for user-to-user mediation
digital behavioural traces in physical spaces
Indigo, Bd. 6:
Fast Machine
Robert Feldhoff

Ratings (42):

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libraries in the ‘food chain’ of everyday creativity

- how do we get new ideas in everyday life?
- how do ideas spread in society?
libraries as enabling spaces for everyday creativity

“homo ludens”

“funology”

‘Revenge of the Right Brain’. Wired, February 2005
convergent vs. divergent behaviour

**convergent info. behaviour**
- ‘left brain’
- goal-directed, focused, rational
  - ‘zooming in’
- e.g., known-item searches
- conscious, explicit info. needs
- problems, work tasks
- ‘information recovery’

**divergent info. behaviour**
- ‘right brain’
- exploratory, impulsive, intuitive
  - ‘zooming out’
- e.g. browsing, **serendipity**
- subconscious, implicit info. needs
- interests, curiosity, pleasure
- ‘information discovery’

**Library 1.0**: traditional focus on convergent behaviour + ‘convergent’ affordances

**Library 2.0**: complementary focus on divergent behaviour + ‘divergent’ affordances

(Björneborn 2008 + 2010)
serendipity

- "art of making an unsought finding”  
  (Van Andel 1994)

- "The three princes of Serendip”
  - Persian fairy tale
  - Serendip = Sri Lanka
  - the princes discovered more interesting things on their journey than planned for

- library serendipity
  - finding interesting materials, information, etc., not planned for
triggering senses and locomotion: affordances for serendipity in physical library interface

- accessibility
- diversity
- display
- contrasts
- pointers
- imperfection
- cross-contacts
- multi-reachability
- explorability
- ’stopability’

(Björneborn 2008 + 2010)

- How lucky I was to find this :-)

- Guud, hvor heldigt at jeg lige over faldt dén...
serendipity dimensions 1+2+3

accessibility + diversity + display
serendipity dimensions 1+2+3

accessibility + diversity + display
accessibility + diversity + display
contrasts  eye-catching differentiation / quiet zones + display zones
contrasts  eye-catching differentiation / quiet zones + display zones

serendipity dimension 4
Randers

pointers signage, tags, maps, references, etc., may trigger users’ interests
serendipity dimension 5

pointers signage, tags, maps, references, etc., may trigger users’ interests

Nacka, Stockholm
Copenhagen Main Library

serendipity dimension 5

pointers signage, tags, maps, references, etc., may trigger users' interests
imperfection allowing 'cracks' and users' behavioural traces in interface
cross-contacts across different topics, classifications, genres, media, etc.
serendipity dimension 8

multi-reachability  many different access routes across interface
exploability interface invites users to move, look around and explore
explorability interface invites users to move, look around and explore
interfaces invites users to move, look around and explore
serendipity dimension 9

explorability interface invites users to move, look around and explore
serendipity dimension 10

stopability interface invites users to stop, look closer and examine
balanced dimensions: ’overkill’ = counter-productive

affordances for serendipity in physical library interface

- accessibility
- diversity
- display
- contrasts
- pointers
- imperfection
- cross-contacts
- multi-reachability
- explorability
- ’stopability’

- How lucky I was to find this :-)
library future: ‘open-minded’ spaces = affordance spaces

- for overview and navigation
  - facilitating information ‘recovery’ = convergent information behaviour
  - helping users find what they have planned to find

- for serendipity and creativity
  - facilitating information ‘discovery’ = divergent information behaviour
  - helping users discover what they have not planned to find

- designing library interfaces that support users to explore + exploit + expand affordances for both convergent and divergent user behaviour
  - Björneborn (2010)
mediation policy

- how do you want to mediate the human, physical and digital resources of the library?
  - how to vitalize and circulate library resources?
  - how to create affordances for both convergent and divergent behaviour?

- and how to continuously evaluate this mediation policy?
  - user studies incl. observations, interviews, workshops
  - what worked well? what can be improved?
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