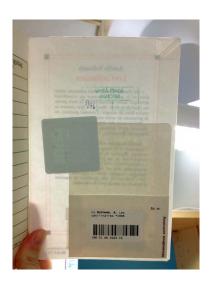
Book Node: Tactics for the Library in the Augmented City

Siri Johansson

IDEO 144A Clerkenwell Rd London, UK EC1R 5DF contact@sirijohansson.com



Abstract

In this project, the challenges facing public libraries and the emerging trend of involving users in library development have been combined with inspiration from the field of urban media design. The aim has been to explore what behaviors public media surfaces designed for culture and exchange could possess, and to argue for the benefits of integrating the library in the urban fabric. The result is a proposed set of tactics for how the library can consciously work with allowing patrons to leave and follow traces. It is manifested in a concept that creates a narrative around each library book, print as well as ebook, and makes its journey tangible by visualizing its digital patina. The system also allows

The library stamp card used to provide each book with unintentional traces of former readers. It has now been replaced with RFID tags. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the Owner/Author. Copyright is held by the owner/ author(s). UrbanIxD Symposium 2014, Venice, Italy. ISBN: 978-0-9562169-3-9.

patrons to leave ebooks at designated nodes around the city, thus influencing which books are made available where.

Author Keywords

interaction design; public space; library; mobile technology; social navigation

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

The library has become one of the last remaining third places, a democratic respite in the city that is important for community life and civic engagement [1]. The library's mission is to provide patrons with new information and media but it also has long term responsibilities. Structural change, such as the introduction of new technology, therefore clearly manifests itself in this setting and makes it an interesting case study when speculating about the democratic development of an increasingly networked city.

In recent years, an active and process based thinking around the role of libraries has emerged [2, 3]. The definition of Library 2.0 is central to this change by suggesting a modernized form of library service with user-centered change at its core [4]. For decades, urbanists have propagated for the same ideas relating "Every technological intervention that is made with the intention of smoothing out urban experience also deprives us of an opportunity to encounter something external to our own will, and so doing robs us of a moment in which we might reflect on the contingency of our own values, choices and beliefs."

Greenfield, 2013

"[...] disembodied information media blanket urban space with their screens[...] As yet, the capacity to tag, to project, or even to inhabit one's own contributions or one's group's curations of augmented urban space is at a very early stage."

McCullough, 2013

to the citizen's right to the city. In order to increase user impact, a move towards design for information dialogue, better social support and a less regulated public interface structure has been suggested [5]. The library as a social space constitutes a great basis for building such a participatory culture.

The initial observation that set the grounds for this project had to do with the introduction of new technology and how it has affected certain experiences both in the library and in the city at large. They are both in essence places for personal encounters and exchange, two things that digital technology is regularly accused of rationalizing away. Concepts that were central for this practical, comparative study of sorts were tagging, patina and traces in the context of the city and the book [6,7], social navigation [8] and serendipitous encounters as a driver of discovery.

Previous work around social navigation and traces in relation to cultural institutions [9,10] has mainly focused on installations and experiences within the bounds of the institution's space. In this work, the concurrent shifts in library and city development were connected. My intent was to explore how the library could extend its reach and contribute to making urban life more playful and social. The notion of the playful city is witnessing a resurgence echoing Henri Lefebvre's views on information, imagination and play as important urban needs [11, 12]. Play demands a certain amount of friction to occur and is thus opposing the prevalent vision of a seamlessly efficient, smart urbanity [13, 14].

The starting hypothesis was that deliberately working with traces in the library and the city could make the library more accessible and, in extension, amplify urban sociability. The goal was to point out a possible future direction for the interactions between citizen-library and citizen-citizen, focusing on values such as sociability, serendipity and delight.

Materials and Methods

In addition to interviews conducted with topic experts and librarians, cultural probes [15] were used to glean inspirational data from citizens of various demographic groups in Umeå (see Figure 1).



Figure 1. Cultural probes package

Nine principles were developed to help guide the ideation process. Examples of these principles were to "Reflect the quality of the shared property", "Engage by giving people agency" and "Design to create opportunities for exchange". Based on the initial research and ideas, a strategy was devised: To make shared objects (books) and environments (the library and city) better reflect the unique qualities that commons could have in an augmented context. This would be done by allowing library patrons to leave and follow traces on two levels of scale: *On objects:* creating a "digital patina" on books *On environments:* affecting what to make available where

After a number of workshops and a sketch process that had started already during research, prototypes were quickly hacked together. QR, Google Forms and Analytics were for example used to test one part of a concept (see Figure 2). Other methods of quickly evaluating design directions and behaviors were video prototyping and projections.

Tactics

Trace leaving (active user)

- Story Caches to consciously leave something in a place for someone else to find
- Alternative Marginalia to annotate a physical or digital item

Tracing (passive user)

- Digital Imprints when activities leave marks after them in a place or on an object
- Narrative Trails making it possible to follow a person's or object's activities through space and/or time



Figure 2. Prototypes "in the wild" in Umeå allowed for people to leave book tips around town.

Results

The project had a bifold outcome. Through grouping of ideas a number of themes emerged that were then formulated as tactics. A high fidelity concept was also developed, meant to facilitate a discussion of the tactics and the theme of library/city synergies in general.

Tactics

Four tactics were identified that would let the library

work deliberately with tracing and trace leaving. Tracing can be defined as a design activity that reveals how values and concepts shape over time [16]. While this project from the beginning centered around creating affordances for the leaving of traces, tracing also became a relevant tool along the way, used to create engagement through revealing information about an object, in this case the library book.

Although all tactics were used to some extent a focus was put on "Story Caches" and "Narrative Trails" in the final concept.

The BookNode concept

The system is comprised of three parts (see Figure 4). The node installation in urban space builds on the "Story Cache" tactic of allowing people to "drop" reading recommendations. A touchscreen in the library acts as the hub for these urban nodes, displaying their status and events. The hub also shows what is being read in the city and lets people explore the history of print books. The library hub builds on ideas from the



Figure 3. The BookNode app with the urban node in the background.

Affect the book s future -Where is it going? City nodes Focus on digital Mobile app Mobile app Connecting both Uibrary hub Focus on print Focus on print

Figure 4. Overview of the BookNode concept.

Where has it been?

"Narrative Trails" theme and relies heavily on a map to emphasize local connections.

A mobile app on people's personal devices acts as an intermediary, allowing users to connect to the nodes (see Figure 3).

Conclusion

Through proposing a way of accessing the library from various location in the city, the BookNode concept suggests how public institutions could work with interactive media surfaces, provide a platform for affecting our proximate surroundings and create an asynchronous exchange between strangers. However, this is a project that would have to be put out into the real world to be properly analyzed and understood. The success of BookNode, or a system similar to it, would likely depend on city size, local culture and other complex factors that can not be anticipated at a conceptual stage.

References

[1] Oldenburg, R. (1989). The great good place (1st ed.). New York: Paragon House.

[2] Jochumsen, H., Rasmussen, C., & Skot-Hansen, D.(2012). The four spaces-A new model for the public library. New Library World, 113(11/12), pp. 586-597.

[3] Pang, N., Denison, T., Williamson, K., Johanson, G. & Schauder, D. (2008). Augmenting communities with knowledge resources: the case of the knowledge commons. In *Augmented Urban Spaces: Articulating The Physical And Electronic City*, p. 185.

[4] Casey, M., & Savastinuk, L. (2006). Service for the next-generation library. Library Journal, 131(1), 40-42.

[5] Eriksson, E., Hansen, T. & Lykke-Olesen, A. (2007). Reclaiming public space: designing for public interaction with private devices. TEI '07, pp. 31-38.

[6] McCullough, M. (2013). Ambient Commons. Cambridge, Massachusetts: The MIT Press.

[7] Björneborn, L. (2011). Behavioural Traces and Indirect User-to-User Mediation in the Participatory Library. ISSOME '11.

[8] Dourish, P., & Chalmers, M. (1994). Running out of space: Models of information navigation, HCI '94, pp. 23-26.

[9] Ferris, K., Bannon, L., Ciolfi, L., Gallagher, P., Hall, T. & Lennon, M. (2004). Shaping experiences in the Hunt museum: a design case study. DIS '04, pp. 205-214.

[10] Krogh, P., Ludvigsen, M. & Lykke-Olesen, A. (2004). "Help Me Pull That Cursor" A Collaborative Interactive Floor Enhancing Community Interaction. Australasian Journal of Information Systems, 11(2).

[11] Watershed.co.uk. (2013). Playable city. [online] Retrieved from: http://www.watershed.co.uk/ playablecity/recife/about/theme/ [Accessed: 7 Jan 2014].

[12] Lefebvre, H., Kofman, E. & Lebas, E. (1996). Writings on cities. Cambridge, Mass, USA: Blackwell Publishers.

[13] Gaver, W., Bowers, J., Boucher, A., Gellerson, H., Pennington, S. & Schmidt, A. et al. (2004). The drift table: designing for ludic engagement. CHI '04, pp. 885-900.

[14] Greenfield, A. (2013). Against the Smart City. New York: Do Projects.

[15] Gaver, B., Dunne, T. & Pacenti, E. (1999). Design: cultural probes. Interactions, 6 (1), pp. 21-29.

[16] Disalvo, C. (2009). Design and the Construction of Publics. Design Issues, 25 (1), pp. 48-63.