

Exploring Participation in the Design of Public Library E-Services

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ABSTRACT

Public libraries are in crisis-mode trying to figure out their future. One area they are struggling with is their role and relationship to the Internet – their e-services. This study engages public library staff, vendors and members in the redesign of online account management features as a way to look at participation from the perspective of the participants. Bringing together concerns, ideas and methodologies from the fields of librarianship, education, and Participatory Design, this study uses a Participatory Action Research approach to explore what we mean by participation and to identify barriers to achieving our ideal vision of participation.

Author Keywords

Participation, Participatory Design, Participatory Action Research, Public Libraries, Co-Design

ACM Classification Keywords

H.1.2. Information Systems: Models and Principles: User/Machine Systems

K.4.2 Computing Milieux: Computers and Society: Social Issues

INTRODUCTION

Public libraries are in crisis-mode trying to figure out their future (Buschman, 2005). One area they are struggling with is their role and relationship to the Internet – their e-services (McClure and Jaeger, 2009; Sullivan, 2003). A big concern seems to be that information freely available online competes with their collections – online and offline. David Lankes has suggested changing focus from libraries to librarians, and from collections to connections. In the Atlas of New Librarianship, he proposes a new mission for librarians: to improve society through facilitating knowledge creation in their communities (Lankes, 2011).

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PDC '14 Companion, October 06 - 10 2014, Windhoek, Namibia
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ACM 978-1-4503-3214-9/14/10...\$15.00.
<http://dx.doi.org/10.1145/2662155.2662174>

To fulfil this new mission and create a new relationship to the people in their communities, librarians will need skills and attitudes that help them facilitate participation. Bringing together concerns, ideas and methodologies from the fields of librarianship, education, and Participatory Design, this study explores participation from the perspective of the participants – defining what we mean by participation and identifying barriers to achieving our ideal vision of participation.

Using Participatory Design (PD) and Participatory Action Research (PAR) as key methodologies, this study is being conducted by a PhD candidate working with staff and vendors of the Toronto Public Library (TPL), the largest public library system in North America.

The research is being conducted on two levels. The first is the “Account Redesign Project” in which library staff and vendors have formed a cross-disciplinary team to redesign the user experience and underlying technology used by library members to manage their library account. Within this paper, we refer to these as the “design activities”, which are based on Participatory Design.

The second level of enquiry, referred to as “Exploring Participation”, is a series of activities reflecting on the participation of library staff, vendors and members in the Account Redesign Project as the basis for investigating issues of participation. Some of the library and vendor staff involved in the design activities have agreed to be co-researchers in this Participatory Action Research.

CONTEXT

Participatory Design (PD) and Participatory Action Research (PAR) share the same roots and are based on a strong set of democratic values (Suchman, 1993). Chief amongst these values is the belief that all people are creative and able to make a contribution (Sanders, et al., 2010) and have the right to contribute to decisions that affect them (Schuler and Namioka, 1993). This leads to the participatory mindset that seeks to reconfigure relationships – between researchers and practitioners, between researchers and research subjects, and between practitioners and the people affected by their practice.

In the 40 years since participatory practices were pioneered, never has participation been so prevalent in the mainstream and in the field of Human Computer Interaction (HCI) (Hayes, 2011; Vines, et al., 2013).

While this has created incredible opportunity for those in the PD field, it has also fuelled concerns. For some time, PD has been apprehensive about the co-optation by the wider HCI community of PD techniques without the adoption of the values and mindset, which are central to PD. These concerns often revolve around two issues: the degree of engagement of users (Bødker, et al., 2004) and whether the outcome transforms the participants, the organizations and/or society (Beck, 2002; Bjerknæs and Bratteteig, 1995). New areas of investigation in HCI, such as participatory media, encompass a wide range of engagement – piquing interest but also raising new concerns about the value and meaning of participation (Vines, et al., 2013)

In early PD, researchers were interested in reconfiguring the relationship between designers and users. However, over time, designers have taken a more facilitative approach to design, blurring the distinct between designer and researcher (Sanders and Stappers, 2008). This study is in this new tradition, with the co-designers playing multiple hybrid design and design research roles. However, this study goes a step further inviting co-designers to be co-researchers as well.

In its ideal state, Participatory Action Research involves the research participants in identifying the research issues and objectives, choosing the methodology and methods, gathering and analyzing the data, and disseminating the results. Generally in PD, the participants have a say in the design but not in the research. To date, there are few examples of participatory design and participatory research being used together (Luke, et al., 2004).

DESIGN AND RESEARCH ACTIVITIES

For the Account Redesign Project the design team, comprised of library staff and vendors, are using many techniques pioneered and refined by PD researchers and practitioners, such as collaborative design workshops, prototyping, and usability walkthroughs with library members. In addition, the design team is planning a closed beta test with library members, gathering structured feedback about the user interfaces as well as information to help prioritize future features. In this paper, we refer to these as the design activities.

Eight members of the design team have agreed to contribute to Exploring Participation, a series of research activities in which the co-researchers reflect on their participation in the Account Redesign Project. To date, we have had four key research activities:

- Discussion forum (online)
- Workshop (in-person)
- Focussed Conversation (in-person)
- Conference submissions (online)

In the discussion forum, the PhD Candidate posed five questions over 3 months as a prelude to the subsequent activities. The questions helped the co-researchers reflect on and share their past experiences of participation.

Mid-way through the design activities, the PhD Candidate led the co-researchers through a vision workshop. Using The Consensus Workshop Method by ICA (Stanfield,

2002), which has many similarities to Future Workshops (Kensing and Madsen, 1991; McPhail, et al., 1998), the co-researchers worked individually, in small groups and then as one larger group to answer the focus question “How do we envision an ideal participation process for the Account Redesign Project?”. This approach allowed the co-researchers to find common ground and discuss issues with the current process in a way that was constructive and actionable.

Two months later, as the design activities were winding down, the PhD Candidate organized an in-person gathering of the co-researchers. Using the Focused Conversation Method by ICA (Stanfield, 2000), the PhD Candidate led an enquiry that started with some objective questions (e.g. Who are the participants on the Account Redesign Project?), which were followed by reflective questions (e.g. How do you feel about involving library members in design?), interpretive questions (e.g. Are there any personal or organizational barriers to including library members in design?), and ending with decisional questions (e.g. How will we include library members in the rest of the Account Redesign Project?).

After the Consensus Workshop, and again after the Focussed Conversation, short conference papers about the work-in-progress were written by the PhD Candidate with input and review by the co-researchers. These conference submissions helped push the reflection and analysis of the Exploring Participation project forward.

Additional research activities are anticipated as follows:

- Reflection on the barriers to achieving our ideal vision of participation using the ICA Consensus Workshop Method (Stanfield, 2002)
- Reflection on the highs, lows and turning points in the Account Redesign project using the ICA Historical Scan Process (IAF, 2007)
- Survey of library members who contributed to the design through blog comments, usability or beta testing
- Interviews and/or survey of library staff and vendors who contributed to the design through any of the design activities.

EXPLORING PARTICIPATION

Through our research activities to date, we have shared stories about our past experiences of participation; envisioned an ideal participation process; and grounded our reflections in our experience on the Account Redesign Project. Below we reveal some of the issues of participation we have churned up through these activities and are currently grappling with.

What are the key issues that make for an ideal participation process?

During the Consensus Workshop, we envisioned elements of the ideal participation process for the Account Redesign Project. The co-researchers clustered the elements into groupings such as accountability, respect, communal tools, etc. (For further details see Costantino et al., 2014). We also talked about exploring

ways to involve library members in a collaborative design role, in addition to a review role.

While the elements of ideal participation that emerged were not extraordinary, their value has been in establishing a vision of participation that can be mined and referenced through the subsequent research activities. When the co-researchers met again two months later for a Focused Conversation, we were able to dig a little deeper into some of the fundamental issues (discussed below) and will continue to do so at the upcoming workshop on barriers to achieving our ideal vision of participation.

Who are the participants? What is participation?

We started the Focused Conversation with the question “who are the participants?” and created a diagram that includes 32 individuals, 3 TPL committees and library members in a generalized way based on their form of input: blog commenters, test participants and web metrics. (For further details see Costantino et al., 2014).

As we discussed the roles participants played on the Account Redesign Project, we clustered people, groups and committees loosely into UX (user-experience) design, extended design, technical, IT, business, management and library members. We also recognized that people had varying degrees of participation and some had joined or left since the project began. Team continuity and commitment are important issues of participation that we will return to in the upcoming historical scan.

Who are the designers? What is design?

When we asked ourselves “who are the designers?”, we immediately wanted to determine “what is design”? We wondered whether technical design should be included and agreed that it should be. But, at the same time, we identified the UX designer, visual designer, front-end developer and subject-matter expert as the UX design team with the other participants - who are more and less actively involved in the design - surrounding them.

Like many, we defined design broadly to include the early generative activities helping define and prioritize the design issues; productive activities that result in low-fidelity and increasingly high-fidelity prototypes; and evaluative activities that allow participants to review and comment on the prototype in order to improve it.

How are library members participating in the design?

So far, library members have been involved in generative activities through 10 years of complaints and feature requests regarding TPL’s self-service account management system. The TPL E-Services team felt that the scope of the redesign was well known in terms of user needs and organizational constraints, therefore we did not include any activities with library members that were intended to be generative in this project.

User involvement to date has been mostly evaluative, including several rounds of usability testing and comments on design on TPL’s web team blog. It has been challenging for the design team to envision how users would be involved in productive design activities, i.e. contributing directly to the wireframes, visual designs and emerging HTML prototype.

What are some of the barriers to involving users in the design?

During the Focused Conversation, the co-researchers were asked how they feel about the idea of involving library members in design. Some people expressed regret that we had not, to this point, included one or more representative users on the core design team. We talked briefly about how this might work. Like other members of the UX design team, would the library member(s) contribute to collaborative design sessions weekly, be co-located with the core design team two days per week, and provide feedback on our various online input channels between design sessions?

Another co-researcher was very frank about her concerns. First and foremost, she feels guilty that the Phase 1 rollout of the Account Redesign Project won’t deliver the features most desired by users – and is already bracing for the backlash.

She also does not want to put users in the position of solving user interface problems that arise because of TPL policy. As one of the subject matter experts, she often provides a reality check for the design team about what can be done within the constraints of the organization, such as policy decisions, technical limitations and available resources. Being cast as an apologist for TPL with library members is fraught with discomfort and risk. This points to a larger issue of organizational readiness to prioritize user needs in order to find the will and resources to overcome organizational barriers.

She also recalled the not-so-good-old-days of “design-by-committee” when her TPL colleagues (none of whom are employed as designers) would provide detailed input into the design. This resulted in designs that were influenced by group dynamics and were ultimately not successful.

Finally, she mentioned that if the design-development-implementation system at TPL were more agile and flexible, making it easy to test and modify design choices, involving end users in design would feel more comfortable. However, as it is now, TPL has to live with its design choices for a long period of time, even if they have evidence that they are flawed.

DISCUSSION

As PD practitioners, we have concerns about using PD techniques without the PD mindset. In this project, many of us have the participatory mindset of PD but failed to include library members in the substantive ways we had envisioned at the start of the project. By examining the factors that stopped us from achieving our vision of participation in this project, we hope to build understanding of the value and values of PD within TPL E-Services. Whether this understanding can move beyond the E-Services group to help build organizational will to engage library members more deeply is a more challenging proposition.

In the spirit of mutual learning that is central to PAR and PD, those of us with a participatory mindset have been presented with a set of concerns that are rooted in experience and not unique to TPL – many of these concerns probably go unspoken or unaddressed in many projects. While some of these concerns can be mitigated,

are there some that cannot? If not, what are the implications for PD? These are some of the questions we will investigate in the next consensus workshop in which we look deeper at the barriers to achieving our ideal vision of participation.

In an upcoming survey, we will inquire how library members feel about their participation in the Account Redesign Project and how they would like to be involved in future projects. This will be an opportunity to explore the concerns raised by TPL staff from the perspective of library members.

Areas of further investigation

While the original intention of this research was to explore participation, we feel compelled to explore what we mean by design as well. In PD, we have broadened what is meant by design to include design research - mostly generative and evaluative. Perhaps it is only now, as the tools and mindset have evolved, that we can start to involve “non-designers” in the more narrow definition of design – contributing in an ongoing and incremental way to interaction and interface design.

Some of the questions we haven’t yet explored include the group’s perspective on involving library members in an agile development process when designing a responsive digital product. Creating a website that renders well on multiple device sizes, such as desktop, tablet and mobile, is a particular design challenge calling for some adjustments to our design activities.

Two additional areas of expected contribution that we haven’t started to analyse yet are PD within cultural organizations, specifically libraries, and the integration of online tools into the PD and PAR processes.

ACKNOWLEDGEMENTS

Thanks to the organizations and individuals involved in the Account Redesign Project, including Toronto Public Library, its staff and members, Usability Matters and its staff, and staff from Normative.

Terry Costantino would like to thank the University of Toronto, Faculty of Information and particularly her supervisor Andrew Clement and committee members Siobhan Stevenson and Matt Ratto.

REFERENCES

Beck, E. P for political: Participation is not enough. *Scandinavian Journal of Information Systems*, 2002, 14, (1): 77-92.

Bjerknes, G. and Bratteteig, T. User Participation and Democracy: A Discussion of Scandinavian Research. *Scandinavian Journal of Information Systems*, 1995, 7, (1): 73-98.

Bødker, K., Kensing, F. and Simonsen, J. *Participatory IT design: designing for business and workplace realities*. MIT press, 2004.

Buschman, J. Libraries and the decline of public purposes. *Public Library Quarterly*, 2005, 24, (1): 1-12.

Costantino, T., LeMay, S., Vizard, L., Moore, H., Renton, D., Gornall, S., and Strang, I. Participatory Design of

Public Library E-Services. In *Proc. of the Participatory Design Conference*, 2014 (Forthcoming)

Hayes, G. R. The relationship of action research to human-computer interaction. *ACM Trans. Comput.-Hum. Interact.*, 2011, 18, (3): 1-20.

IAF (International Association of Facilitators), ToP Historical Scan Process, *Method of the Month*, May 2007 http://www.iaf-world.org/Libraries/Method_of_the_Month/Method-ToP_Historical_Scan_Process.sflb.ashx

Kensing, F. and Madsen, K. H. Generating visions: Future workshops and metaphorical design. *Design at work: Cooperative design of computer systems*, 1991: 155-168.

Lankes, R. D. *The atlas of new librarianship*. MIT Press Association of College & Research Libraries., Cambridge, Mass, 2011.

Luke, R., Clement, A., Terada, R., Bortolussi, D., Booth, C., Brooks, D. and Christ, D. The promise and perils of a participatory approach to developing an open source community learning network. In *Proc. of the eighth conference on Participatory design: Artful integration: interweaving media, materials and practices - Volume 1* (Conference, 2004). ACM.

McClure, C. R. and Jaeger, P. T. *Public libraries and Internet service roles: Measuring and maximizing Internet services*. American Library Association, 2009.

McPhail, B., Costantino, T., Bruckmann, D., Barclay, R. and Clement, A. CAVEAT Exemplar: Participatory Design in a Non-Profit Volunteer Organisation. *Computer Supported Cooperative Work (CSCW)*, 1998, 7, (3): 223-241.

Sanders, E. and Stappers, P. J. Co-creation and the new landscapes of design. *CoDesign*, 2008, 4, (1): 5-18.

Sanders, E. B. N., Brandt, E. and Binder, T. *A framework for organizing the tools and techniques of participatory design*. ACM, City, 2010.

Schuler, D. and Namioka, A. *Participatory Design: Principles and Practices*. Hillsdale, N.J.: L. Erlbaum Associates, 1993.

Stanfield, B. *The art of focused conversation : 100 ways to access group wisdom in the workplace*. New Society Publishers, Gabriola Island, B.C., 2000.

Stanfield, B. *The workshop book : from individual creativity to group action*. New Society Publishers, Gabriola, B.C., 2002.

Suchman, L. Foreword. In Schuler, Douglas, and Aki Namioka. *Participatory Design: Principles and Practices*. Hillsdale, N.J.: L. Erlbaum Associates, 1993.

Sullivan, M. The fragile future of public libraries. *Public Libraries-Chicago-Public Library Association-*, 2003, 42, (5): 303-308.

Vines, J., Clarke, R., Wright, P., McCarthy, J. and Olivier, P. Configuring participation: On how we involve people in design. *Conference on Human Factors in Computing Systems - Proceedings*, 2013: 429-438.