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The Mundane and Strategic Work in Collaborative Design

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Introduction

Public organizations can benefit from involving citizens in their design and development activities. Citizens can provide a voluntary resource for public authorities in the design and delivery of public services and contribute to the creation of more adequate services.¹ In turn, possibilities to participate in shaping one's city or country add new democratic opportunities for citizens.² Consequently, the use of service design and codesign in the public sector has become more widespread.³ This development is tied to a broader change in how design activities are conducted in society: User involvement in design is no longer a fringe activity. Industry, the public sector, peer-to-peer initiatives, and academia alike have begun to see citizens as important actors in various development and innovation activities.⁴ New platform businesses and incumbent companies—including giants such as SAP, Oracle, and Procter & Gamble—have devised elaborate arrangements to harness the time, competence, and creativity of users.⁵ Also, peer-to-peer initiatives have spread and diversified beyond emblematic open source projects such as Linux or Wikipedia.⁶ There appears to be “an era of participation” in design (as it is phrased in the title of the 2016 participatory design conference) associated with the “new production of users,” in which productive users are brought into being through the intensification of different forms of user involvement, and through involving them also in (crowd) funding, marketing, maintenance, delivery, and assessment tasks in addition to design.⁷ This shift is further associated with increasingly strategic ways to involve users outside academia and with more complex ties between user involvement and the other operations of organizations.⁸

The era of participation also means new challenges for academic research on collaborative design. The research area has been dominated by project-level reports on collaborative design,

- 1 Tony Bovaird, “Beyond Engagement and Participation: User and Community Coproduction of Public Services,” *Public Administration Review* 67, no. 5 (2007): 846–60.
- 2 Peter Dalsgaard, “Participatory Design in Large-Scale Public Projects: Challenges and Opportunities,” *Design Issues* 28, no. 3 (Summer 2012): 34–47.
- 3 John Body, “Design in the Australian Taxation Office” *Design Issues* 24, no. 1 (Winter 2008): 55–68; Sabine Junginger, *Transforming Public Services By Design: Re-Orienting Policies, Organizations, and Services Around People* (New York: Routledge, 2016).
- 4 Eric von Hippel, *Democratizing Innovation* (Cambridge, MA: MIT Press, 2005); Eric von Hippel, *Free Innovation* (Cambridge, MA: MIT Press, 2016); Bovaird, “Beyond Engagement and Participation”; Sampsa Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn, “Introduction to the New Production of Users,” in *The New Production of Users: Changing Innovation Collectives and Involvement Strategies*, eds. Sampsa Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn (New York: Routledge, 2016), 1–44.
- 5 Neil Pollock, Robin Williams, and Luciana D’Adderio, “Generification as a Strategy: How Software Producers Configure Products, Manage User Communities and Segment Markets,” in *The New Production of Users: Changing Innovation Collectives and Involvement Strategies*, eds. Sampsa Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn (New York: Routledge, 2016), 160–92; Hajar Mozaffar, “User Communities as Multifunctional Spaces: Innovation, Collective Voice, Demand Articulation, Peer Informing and Professional Identity (and More),” in *The New Production of Users: Changing Innovation Collectives and Involvement Strategies*, eds. Sampsa

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- Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn (New York: Routledge, 2016), 219–48.
- 6 Stefan Verhaegh, Ellen van Oost, and Nelly Oudshoorn, “Innovation in Civil Society: The Socio-Material Dynamics of Community Innovation,” in *The New Production of Users: Changing Innovation Collectives and Involvement Strategies*, eds. Sampsa Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn (New York: Routledge, 2016), 193–218; Jan Hess and Volkmar Pipek, “Community-Driven Development: Approaching Participatory Design in the Online World,” *Design Issues* 28, no. 3 (Summer 2012): 62–76.
- 7 Hyysalo, Jensen, and Oudshoorn, “Introduction to the New Production of Users”; Torben Elgaard Jensen and Morten Krogh Petersen, “Straddling, Betting and Passing: The Configuration of User Involvement in Cross-Sectorial Innovation Projects,” in *The New Production of Users: Changing Innovation Collectives and Involvement Strategies*, eds. Sampsa Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn (New York: Routledge, 2016), 136–59.
- 8 Nigel Thrift, “Re-Inventing Invention: New Tendencies in Capitalist Commodification,” *Economy and Society* 35, no. 2 (2006): 279–306; Mikael Johnson, “How Social Media Changes User-Centred Design: Cumulative and Strategic User Involvement with Respect to Developer–User Social Distance,” (Espoo, Finland: Doctoral dissertation, Aalto University); Pollock, Williams, and D’Adderio, “Generification as a Strategy.”
- 9 Peter M. Asaro, “Transforming Society by Transforming Technology: The Science and Politics of Participatory Design,” *Accounting, Management and Information Technologies* 10, no. 4 (2000): 257–90; Bettina Törpel, Alexander Voss, Mark Hartwood and Rob Procter, “Participatory Design: Issues and Approaches in Dynamic Constellations of Use, Design, and Research,” in *Configuring Designer-user Relations*, eds. Alexander Voss, Mark Hartwood, Rob Procter, Mark Rouncefield, Roger Slack, Monica Büscher (London, UK: Springer, 2009), 13–30; Adrian Smith, Mariano Fressoli, Dinesh Abrol, Elisa Arond, and Adrian Ely, *Grassroots Innovation Movements* (New York: Routledge, 2016).

proposals for new methods and techniques in user involvement, and normative reflections and positions on how user involvement ought to take place—all streams of research that were crucial from the 1970s to the 1990s, when vanguard projects in industry, academia, and grassroots movements promoted user engagement as a viable alternative in development activities.⁹ But these dominant forms of research reporting have overshadowed issues that are important in the present era.

One such issue is that the strategizing involved in collaborative design has been treated as an issue of power or politics that contextualizes, animates, or stands in the way of the pursuit of greater social good.¹⁰ Yet, as Jensen and Petersen point out, such a treatise leaves aside the effects of strategic considerations involved in the everyday accomplishment of the processes and outcomes of collaborative design. In addition, the variety and effects of (often routine) work in collaborative design have been glossed over.¹¹

We are not alone in noticing the design issues in mundane and strategic work in collaborative design. Research on infrastructuring has been oriented toward these concerns because both mundane practicalities and strategizing are necessary parts of the work that goes into holding participatory endeavors together for longer durations.¹² These studies have spurred reflections on all that is needed both in infrastructuring for participatory design and in being able to scale up and anticipate future directions in participatory development.¹³ Meanwhile, codesign research has paid attention to intermediate designs, such as those that go into designing probes and design games, including the pre-designs of design game settings, rules, and facilitation procedures.¹⁴ This focus on intermediate designing has come to include research on the materialization processes involved in the staging and formatting of codesign.¹⁵

Much of this work has emerged in the intersection between design research and science and technology studies (S&TS). The tradition in S&TS is to study how technology, knowledge, and expertise are produced not only as intellectual pursuits but as practical accomplishments, including mundane work and strategic actions.¹⁶ In this view all the kinds of work that go into collaborative design are examined as *co-constitutive* to the processes, results, and further uptake of the collaborative design outcomes; they are seen as *internal* issues of user involvement and *not just as external context or excludable* routine execution.¹⁷ For instance, Pollock and Mozaffar show how users’ engagement in development efforts for packaged software rested on strategic gains for themselves and

- 10 Joan Greenbaum and Morten Kyng, *Design at Work: Cooperative Design of Computer Systems* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1991); Sampsa Hyysalo and Janne Lehenkari, "Contextualizing Power in Collaborative Design," *Proceedings of Participatory Design Conference 2002*, eds. Thomas Binder, Judith Gregory, and Ina Wagner (Malmö, Sweden: Computer Professionals for Social Responsibility, 2002), 93–104; Eevi E. Beck, "P for Political: Participation Is Not Enough," *Scandinavian Journal of Information Systems* 14, no. 1 (2002): 1–17; and Dalsgaard, "Participatory Design in Large-Scale Public Projects."
- 11 Jensen and Petersen, "Straddling, Betting and Passing"; Verhaegh, van Oost, and Oudshoorn, "Innovation in Civil Society"; and Mette Agger Eriksen, *Material Matters in Co-Designing: Formatting & Staging with Participating Materials in Co-Design Projects, Events & Situations* (Malmö, Sweden: Doctoral Dissertation, Faculty of Culture and Society, Malmö University, 2012).
- 12 Helena Karasti and Karen S. Baker, "Community Design: Growing One's Own Information Infrastructure," in *Proceedings of the Tenth Anniversary Conference on Participatory Design 2008* (Bloomington, IN: Indiana University, 2008), 217–20; Helena Karasti and Karen S. Baker, "Infrastructuring for the Long-Term: Ecological Information Management," in *System Sciences, 2004: Proceedings of the 37th Annual Hawaii International Conference on* (IEEE, 2004), 10–25; M. Buscher et al., "Bottom-Up, Top-down? Connecting Software Architecture Design with Use," A. Voss, et al., eds. (London, UK: Springer, 2009), 157–92; Verhaegh, van Oost, and Oudshoorn, "Innovation in Civil Society: The Socio-Material Dynamics of Community Innovation."
- 13 On infrastructuring, see e.g., Susanne Bødker, Christian Dindler, and Ole Sejer Iversen, "Tying Knots: Participatory Infrastructuring at Work," *Computer Supported Cooperative Work* 26, no. 1-2 (April 2017): 245–73; On Scaling and Sustaining Participatory Design Efforts, see e.g., Morten Kyng, "Democracy Beyond Projects: How Users May Achieve Lasting Influence on IT

find a corollary in vendors' strategizing about user participation.¹⁸ Jensen and Petersen, in turn, show how the project pragmatics and the characteristic series of tasks override and straddle both the aims of user empowerment and the fears of user exploitation.

Continuing this line of investigation, the present article examines user involvement actions conducted between 2012 and 2015 in the context of the Helsinki Central Library (CeLib) project, a €100 million (approximately US\$121,966,000) flagship project to mark Finland's one-hundredth year of independence. We specifically analyze the retrospectives by the designers on six of the twelve participation activities: open idea gathering on the web, open idea gathering in public events, idea refinement, participatory budgeting, focused interest group workshops, and a formation of the user-developer community. We examine each of these collaborative design actions with respect to the following:

- What did the collaborative design action consist of and how did it feed forward into the activities that followed?
- What were regarded as the benefits and shortcomings of the collaborative design actions?
- How was user collaboration affected by the existing competences in the organization, and how did it renew them?

These foci allow us to contribute to design research by elaborating on how collaborative design in real-life projects is permeated by mundane and strategic work. By *mundane work in collaborative design* we refer to the variety of actions that range from coordinating space for workshops, to seeking participants, to sorting output, to guesstimating what the participants can get done in a given time-frame. Such actions might be seen as low-level design activities or as part of "silent design" by non-designers in organizations,¹⁹ but some actions could just as validly be seen as janitorial work, recruiting, secretarial work, or qualitative data analysis that just happen to be related to design. We draw attention to how these kinds of mundane work permeate overt collaborative design and play an important role in its outcomes, even as this has been overlooked in favor of concerns of democracy, equality, values, social structures, gender, and methodologies in academic design research.

- Systems," *Interactions* 23, no. 2 (2016): 36–39; and Morten Kyng, "On Creating and Sustaining Alternatives: The Case of Danish Telehealth," in *Proceedings of the Fifth Decennial Aarhus Conference on Critical Alternatives* (Aarhus: Aarhus University Press, 2015), 5–16.
- 14 See e.g., Tuuli Mattelmäki, *Design Probes* (Helsinki: University of Art and Design Helsinki, 2006); Kirsikka Vaajakallio and Tuuli Mattelmäki, "Design Games in Codesign: As a Tool, a Mindset and a Structure," *CoDesign* 10, no. 1 (2014): 63–77; and Tuuli Mattelmäki, Eva Brandt, and Kirsikka Vaajakallio, "On Designing Open-Ended Interpretations for Collaborative Design Exploration," *CoDesign* 7, no. 2 (2011): 79–93.
- 15 Eriksen, "Material Matters in Co-Designing"; and Elizabeth Sarah Goodman, "Delivering Design: Performance and Materiality" (Berkeley, CA: Doctoral dissertation, University of California, Berkeley, 2013).
- 16 Bruno Latour and Steve Woolgar, *Laboratory Life: The Social Construction of Scientific Facts* (Beverly Hills, CA: Sage Publications, 1979); Susan Leigh Star and Anselm Strauss, "Layers of Silence, Arenas of Voice: The Ecology of Visible and Invisible Work," *Computer Supported Cooperative Work* 8, no. 1–2 (1999): 9–30; and Geoffrey Bowker and Susan Leigh Star, *Sorting Things Out: Classification and Its Consequences* (Cambridge, MA: MIT Press, 1999).
- 17 Nelly Oudshoorn, Els Rommes, and Marcelle Stienstra, "Configuring the User as Everybody: Gender and Design in Information and Communication Technologies," *Science, Technology & Human Values* 29, no. 1 (2004): 30–63; Johnson, "How Social Media Changes User-Centred Design"; Torben Elgaard Jensen, "Doing Techno Anthropology: On Sisters, Customers and Creative Users in a Medical Device Firm," in *What Is Techno-Anthropology?* (Aalborg: Aalborg University Press, 2013); Torben Elgaard Jensen, "Intervention by Invitation: New Concerns and New Versions of the User in STS," *Science & Technology Studies* 28, no. 1 (2012); Jensen and Petersen, "Straddling, Betting and Passing."
- 18 Hajar Mozaffar, "User Communities as Multifunctional Spaces"; Neil Pollock and

By *strategizing work in collaborative design* we refer to the ways by which collaborative design is harnessed to serve aims beyond design. Marketing, public relations, stakeholder management, and organizational change are commonly tied in with collaborative design, and as noted above, are seen to contextualize or even compromise it.²⁰ We elaborate on how strategizing work becomes an internal constituent of collaborative design, holding a more intricate relation to designing than being simply a context factor. Finally, research on design competency in organizations addresses well both the possibilities that design holds for organizational transformation and, in turn, the need for organizational capability building that allows design to thrive.²¹ Also here a more fine-grained conceptual repertoire throws additional light: collaborative design activities require, and benefit from, wider staff involvement, yet the profile of the involved staff directly affects what intermediate designs are feasible, how the collaboration with citizen users gets conducted, and what gets made of its various results.

The net outcome of these considerations is an elaboration of the *work of collaborative design*: what designers (have to) do to get collaborative design done and to get methods to work in practice. We are well aware of the scope of and the need for both the close-up and wide-angle analyses that this design issue merits. This article examines the *effects* of the mundane and strategic work of collaborative design on real-life projects, using the designer retrospectives to establish their importance. More fine-grained studies of each aspect and wider comparative studies are needed but are beyond the scope of this article.

Helsinki Central Library Project and Participatory Planning

CeLib is a flagship project both for the City of Helsinki, which has funded 80% of it, and for the Finnish State, which has funded 20% as one of its centennial projects. Political support for the project was always strong among the leftist and green parties, but conservatives both in city and national governments eventually also adopted the project. Public libraries are the most popular cultural institutions in Finland, and the decline in customer visits that is happening in most other countries has not taken place in Finland. The renewed library law in 2017 cemented the position of



Figure 1
Helsinki Central Library: an aerial overview.
Image: City of Helsinki and ALA Architects,
reprinted with permission.

- Sampsa Hyysalo, "The Business of Being a User: The Role of the Reference Actor in Shaping Packaged Enterprise System Acquisition and Development," *MIS Quarterly* 38, no. 2 (2014): 473–96; Pollock, Williams, and D'Adderio, "Generification as a Strategy."
- 19 Peter Gorb and Angela Dumas, "Silent Design," *Design Studies* 8, no. 3 (1987): 150–56; and Hyunjoon Lee, "Recognizing Design: The Artistic Director as Silent Designer," *Design Issues* 31, no. 4 (Autumn 2015): 56–66.
- 20 Sabine Junginger, "Product Development as a Vehicle for Organizational Change," *Design Issues* 24, no. 1 (Winter 2008): 26–35; and John Body, "Design in the Australian Taxation Office," *Design Issues* 24, no. 1 (Winter 2008): 55–67.
- 21 Juninger, "Product Development as a Vehicle for Organizational Change."
- 22 Dalsgaard, "Participatory Design in Large-Scale Public Projects."
- 23 See Joe J. Marquez and Annie Downey, *Library Service Design: A LITA Guide to Holistic Assessment, Insight, and Improvement* (Rowman & Littlefield,

libraries and opened new societal roles for the libraries of the digital age. CeLib is expected to spearhead the expansion of these roles, which are part of a library transformation worldwide: Instead of being repositories and access points for books and other cultural productions, libraries are increasingly serving as alternative working spaces, as community centers, as sites for new forms of cultural production, as hosts to democratic engagements, and as platforms for citizens' own initiatives.²² This transformation means that libraries need to reinterpret how they interact with customers and how they cultivate new audiences, both in their own development work and in offering opportunities for citizens to participate in democratic decision making and cultural production.²³

The City of Helsinki has committed to increasing citizen participation as part of its strategy program in 2013–2016. User participation and service design have become a means for improving services and for empowering municipal residents.²⁴ User participation first gained momentum during Helsinki's year as World Design Capital in 2012 and has continued since. CeLib offered Helsinki Library Services a new type of context within which it could collaborate with citizens and other stakeholder groups. Some of the libraries in the Helsinki library network—most notably Library 10 in downtown Helsinki—have a rich history of interacting with citizens, but most of the 36 branch libraries and the majority of the 500 staff members operate in a more traditional model (see Figure 1).

The CeLib preplanning preparations started around the turn of the millennium, and the work intensified into a preplanning specification in 2012. An architectural competition was held in 2013, and the formal building decision was made by the city council in 2015. CeLib is to open its doors in late 2018. In terms of project organization, Helsinki Library Services was in charge of the content and space reservations, and the city planning office was in charge of the allotment and building specifics. Collaborative design actions were part of the preplanning process from 2012 to 2015 and were conducted by a library's participation planner with assistance from other planners and staff members.

The audiences of the collaborative design activities were varied. On the one hand, public libraries are for the general public and while it was vital to devise ways in which to reach out to people in an undifferentiating manner, the library services already had a rich understanding of their current customers and their activities in library spaces. On the other hand, CeLib was to radically transform what libraries were offering, and new generations of citizen users would continue to emerge for digital, learning, and making facilities every few years.²⁵ Thus, in some areas, enhanced understanding and dialogue were necessary to imagine future digital peer-to-peer learning solutions, makerspaces, gaming environments, and future work and cultural production spaces. The collaborative design thus proceeded through both broad and specific channels, and mixed explicit future orientation with present-day concerns.

Researching the Effects of Mundane and Strategic Work of Collaborative Design

Our research has been primarily conducted through participant observation. The first author, who served as the participation planner of CeLib throughout its concept design phase, from 2012 to 2015, was responsible for planning and executing all the participation activities detailed in the paper. She documented the activities and updated event descriptions as a running blog on the project website. The second author consulted in the collaborative design efforts as an outside academic and was involved in the planning of roughly half of the collaborative design actions and some execution.

The two authors conducted an informal discussion after each collaborative design activity and in November 2014 compared the notes produced from each discussion. The retrospective for the "Friends of CeLib" user community was created in January 2015 when that activity was completed, and the resulting notes were incorporated. These data were complemented with notes by an

2016); and Virve Miettinen, "Redefining the Library: Codesigning for Our Future Selves and Cities," *Public Library Quarterly*, 2017 DOI: 10.1080/01616846.2017.1379348.

24 Bryan Boyer, Justin W. Cook, and Marco Steinberg, *In Studio: Recipes for Systemic Change: Helsinki Design Lab* (Helsinki: Sitra, 2011).

25 Sampsa Hyysalo Cindy Kohtala, Pia Helminen, Samuli Mäkinen, Virve Miettinen, and Lotta Muurinen, "Collaborative Futuring with and by Makers," *CoDesign* 10, no. 3-4 (2014): 209–28.



Figure 2
Examples of library dream posters featuring a movie director, a development manager for a national development fund, and a cartoonist, respectively. Images: Helsinki City Library, reprinted with permission.

independent observer from the second author's research group and a separately researched, interview-based thesis on participants' experiences in the user design community.²⁶ The authors also conducted interviews with the planners involved in the process, and primary documents of CeLib's planning were available for double-checking details. The remainder of this article compares these retrospective assessments, analyzing who was involved, what design activities were done, what was achieved, what feedback was gained from the participating employees and citizens, what challenges were observed, and what surprises occurred. As already noted, we refrain from a detailed examination of the situational specifics of each of the activities because of the length constraints of this article.

Collaborative Design Activities in the CeLib Project

We now examine the CeLib project's collaborative design activities in chronological order, as the activities built on each other.

Open Ideas Harvesting: Digital Platform and Advertising Campaign

Collaborative design in the CeLib project started with the open collection of "library dreams" from citizens. To raise awareness of the project and the idea collection, the activity started with a poster campaign in public advertising spaces and libraries. The posters featured library dreams by known Finnish cultural figures and an invitation to leave one's own "dream"—either in any library or on the digital platform, "Tree of Dreams," on the central library's website (see Figure 2). Citizens responded by posting 2,300 library dreams during 2012 and 2013.

26 Anna Hyödynmaa, "Demokratian Leikkikentällä: Osallistava Suunnittelu Hallinnon Ja Demokratian Muroksessa," [In the Playground of Democracy] (Master's dissertation, University of Jyväskylä, 2016).

In the retrospective assessment the outdoors campaign and open web participation were noted for having had several upsides. Inviting citizens to influence planning by spelling out their dreams and ideas was a new opening in the Helsinki planning culture. The Tree of Dreams was found to be visually appealing, an easy channel for citizens to express their views, and effective in openly displaying all the ideas. The advertising campaign had effectively portrayed the future library's content and activities and encouraged participation. In addition, when paired with the digital tree, the campaign had emphasized well how the envisioned library was to combine a more traditional library with digital services and spaces for cultural production. Combining marketing and the harvesting of design ideas thus appeared to create a win-win: Seeking interactions with the public by collecting library dreams gave a justified purpose for the campaign's visibility, while the marketing budget enabled a reach that would have been difficult to justify based on design gains alone.

In principle, the digital platform enabled the digital storing and handling of materials and could be run by the participation planner alone. In practice, however, few citizens used the tagging options available, and those who did used a wide variety of terms, resulting in an undifferentiated mass of ideas and wishes. A partner company was contracted to provide a content analysis of the dreams, but the results remained cursory in the librarians' eyes. The web participation also created a one-way information transfer, with no mechanism for refining or gaining background for the ideas expressed briefly or in cursory ways. By definition, the open call for dreams did not target the areas in which the most user insight was needed for planning. Taken together, the above characteristics meant that the yield of the web campaign depended on considerable additional work to refine and make sense of the content it provided—both on its own and by connecting the dreams with insights from other collaborative design activities.

Open Idea Harvesting: Urban Events during the World Design Capital Helsinki 2012 Year

The digital dream campaign was paired with the Helsinki Library Service's participation in a series of urban events that were held during the 2012 World Design Capital year of Helsinki, including local street-art festivals and the World Design Capital (WDC) pavilion event series. The campaign also had a presence in more than 30 branch libraries. The Tree of Dreams was now embodied,



Figure 3
Two trees of dreams. Images: Helsinki City
Library, reprinted with permission.



made physically present (see Figure 3), and encounters with people allowing for two-way interactions and for gaining knowledge of peoples' backgrounds and the contexts of their dreams. This interaction resulted in "higher quality dreams" than the web entries had provided because the relevant context and background could be written onto the dream cards in conversation with the citizens. The events also created new contacts between library planners and groups of people who did not necessarily visit the existing libraries, including urban activists, youth, open-data enthusiasts, and politicians. In terms of marketing, the event participation helped to renew the image of the library among these people, linking it to the future orientation of the WDC year events.

On the downside, the campaign contents had to be customized for different events. Interacting with people at events that were held during weekends and evenings was intensive work that required improvisation and adjustment as events were difficult to anticipate or plan for properly. The manual filing of dreams further meant that additional work would be required to manually insert all the ideas into the database afterward. In terms of outcomes, dreams were still just ideas—not solutions that could be appropriated. The library planners had to conclude that the event participation had an expensive "contact price per customer" compared to the web presence, given the 400 dreams that were collected. For the library staff, presence in events widened the circle of people who participated in the collaborative design activities. However, collecting dreams independently in the neighborhood libraries had a limited yield and wide engagement among the library staff remained a challenge.

"The Dream Job": The Work Needed to Analyze the Library Dreams

To handle the 2,700 library dreams that had been collected in total, the participation planner enticed eight colleagues to take a "dream job"—a two-day sprint of qualitative sorting and content description of the dreams. The team identified recurring themes in the data, sorted the dreams into them, and created a description of each content cluster in four parts (i.e., a general description, a quantified summary, illustrative ideas, and a description of key subcategories). The resulting eight themes and their descriptions were deemed illustrative and well-grounded by the team and planners. This "dream job" was instrumental in spreading awareness in and enthusiasm about more direct engagement with citizens among the library staff. However, the work, again, was limited to those who had immediate contact with the collaborative design activities.

In the retrospective discussion it was further noted that although the themes were effectively formed, finalizing the descriptions required several days of additional work by the participation planner. The themes were merely the first cut through the wealth of data, and full use of the dream campaign contents would have required still further resources, which were unattainable.

The Participatory Budgeting of Annual Development Funds

Given the dream campaign's visibility and ambitions, the library decided to refine the key themes elaborated in the "dream job" into a set of concrete pilot projects that could be run already in 2014. To select the concepts, the library volunteered to become the first organization to conduct large-scale participatory budgeting in Finland (with the help of private sector partners and the Finnish Innovation Fund). Citizens decided on which of the eight pilot concepts should be realized, based on pre-budgeted cost structures, by participating either on the web or in three workshops that were held. The four pilot projects chosen were the Urban Workshop makerspace concept, the Storybook Birthday Parties for families and children, Space for relaxation and concentration, and a literature event series. The realized projects were deemed a success: All the Storybook Birthday Parties were booked in just four hours, and the *Kaupunkiversta*s makerspace was awarded the library's best service of the year.

The participatory budgeting generated positive media attention in moving beyond mere public consultation. Granting decision-making power to the public was endorsed positively by the participants, library staff, and media alike. The library was seen as a pioneer in creating democratic and participatory models, and it received positive feedback long afterward. The pilot concepts and participatory budgeting gave planners an opportunity to refine, develop further, and concretize the dream data themes, which was important for design and marketing alike and showed internally that important service concepts could be gained from outside the organization as well.

In retrospect the framework for co-working with the citizens, the decision rules, and the workshop methods worked well. Citizens held ardent discussions to bring about consensus across their highly varying backgrounds and interests, ranging from computer coders and urban activists to literature enthusiasts. A potential shortcoming was that only 60 citizens participated in the workshops and self-selection was an issue; the term "participatory

budgeting” reportedly scared some people away as it sounded like participants would have needed the competence of a professional politician. On the library’s side, the timeframe was tight with only four months margin from idea to realization of the first run of the visualization of budget data, web participation, and marketing. The schedule affected the library’s capacity to staff the activity, and a gap remained between the team who organized the participation and the staff members who were to become tasked with realizing the pilot projects. This gap affected the longevity of some of the pilots. For example, the much-loved Storybook Birthday Party concept turned out to be too taxing for the staff, which eventually precluded the service from becoming permanent.

In all, the participatory budgeting and pilot creation highlight the importance of carryover between different collaborative design engagements, and reiterates how complementarities between interactive marketing and collaborative design supported each other.

Invitational Participatory Workshops and Events

In addition to open events, we held about 20 invitational workshops to gain specific design input from crucial user and stakeholder groups for the development of the future library. Workshops were held on peer learning and doing; digital media; digital-physical making activities; the future of literacy, book, and print; tourism; and multiculturalism. Workshops were also held with neighboring cultural institutions to CeLib, neighboring offices in the city of Helsinki, youth and youth services, kindergarten teachers, and families with children. These workshops provided an opportunity for focused and deep engagement with experts, and they produced insights that were directly relevant for the knowledge gaps the planners had identified regarding user groups and space reservations. The knowledge generated contained many ideas for solutions and key background knowledge. These events allowed for a plurality of exchanges between the invited participants and library staff. The content specialists from the library staff could be actively involved in a manner that was directly useful for them in gaining new knowledge and connections. From a marketing perspective, the events further created buy-in from stakeholders and opinion leaders among the target groups—again also allowing the library planners to explain their ideas about the future library and thus to do legitimate marketing and PR among the stakeholders.



Figure 4
Participants in a 2012 invitational makerspace workshop. Image: Helsinki City Library, reprinted with permission.

In retrospect, the invitational workshops were seen as highly useful, particularly in light of the open idea gathering that provided more “out-of-the-box” input regarding the future library. At the same time, each workshop required days or weeks of both preparatory and post-event work from the participation planner, both of which affected the outcomes of the events. The steps included first identifying and making contact with relevant people and creating background materials; second, selecting the collaborative design methods for the workshops and adjusting them as needed, given the expert participants and the timeframe (e.g., half day or full day); and third, further testing, rehearsing, and making iterative changes to the intermediate workshop design to meet the event goals and the time-box and conviviality considerations. The workshops provided such a wealth of ideas and information, very similar to the open call for library dreams, that recording them effectively during and after the workshop proved difficult. Given the volume of information, converting the ideas afterward to concrete service improvements proved challenging, and eventually the planners tended to incorporate only the most immediately relevant ideas. The city administration principle of seeking to engage equally with key civic and stakeholder groups eliminated the option of reducing the number of workshops to allow more time for improved analysis (see Figure 4).

Friends of the Central Library

The final collaborative design activity in autumn 2014 involved the formation of a citizen designer community to join with the professionals. At the beginning of the detailed planning phase of the CeLib concept, 120 people responded to a “job ad” seeking friends of the central library (CeLib Friends); from this group, 28 were chosen, representing the pre-set criteria for the current and future library customer base.

The CeLib Friends’ initiative sought to test and improve solutions, to identify the most burning development needs, and to find new solutions and ideas. It ran as four monthly workshops subdivided into topical groups and web-based tasks in the periods between the workshops. The topics included experimenting and learning, twenty-first century civic skills, and different cultural formats including how the library could serve different residents, communities, and tourists. The workshops involved various co-design tools, including customer journeys, customer profiles, narrative formation, role play, and image collages, to concretize the ideas and personal experiences of citizens into a relevant form. Ten library staff members worked in the workshops as facilitators or scribes, and the project culminated in the presentation of the results in February 2015 to the deputy mayor, the project managers, and the architects.

CeLib Friends provided well-articulated concept ideas for the library’s design. Both the participating employees and the participating citizens gave highly positive feedback.²⁷ Within the CeLib project, the CeLib Friends’ activity pushed the planners and architects to concretize what information was still missing. The concepts formed by CeLib Friends were taken forward in four building and renovation projects of the Helsinki library network. The initiative also marked the culmination point of the marketing and PR campaigns of the CeLib planning phase: The final city council vote to build CeLib was taken just a month after the CeLib Friends’ pilot ended, and the vote was nearly unanimous—a major victory, considering that Helsinki Guggenheim was voted down just two months later by the same council.

In the retrospective discussion CeLib Friends was seen to accentuate the same dynamics that ran across the CeLib citizen involvement activities. The outcomes and processes were successful, but the chosen workshop format was labor intensive and the participant and facilitator time and the labor required to refine the productions between workshops affected the structure of the workshops as much as concerns over how the set-ups would ensure equality in participation and the ownership of the process, even as the latter were key priorities for the design team. In turn,

27 Hyödynmaa, “Demokratian Leikkikenttällä” [In the playground of democracy].

these issues led to hours of calculation over how long it takes for groups to acquaint, discuss, conduct, and refine the different tasks, which were next permeated by considerations of participants' enjoyment and fatigue and the level of detail needed to generate satisfying results. In all, the practical and strategic work needed to achieve collaborative design—often deemed mundane from a design perspective—was crucial for success.²⁸

Discussion and Conclusions

In the CeLib project web-based and face-to-face idea gathering, the targeted participatory events and workshops, the participatory budgeting, and the user-developer community all departed from different basic set-ups. They differed with respect to how many users could participate, how much power and control the users had, the timespan of collaboration, and what were the citizen contributions and the concrete outcomes that followed from them. Nonetheless, all these activities were regarded as successful by the Helsinki library services. Importantly, the collaborative design activities pursued in CeLib complemented each other with respect to the kind of participation they fostered and the kind of information and design outputs they provided.

That different forms of citizen and stakeholder involvement have different yields, merits, and shortcomings is not surprising. Such differences are a key reason why so many techniques, methods, and methodologies have been developed for codesign and participation more broadly.²⁹ In the CeLib project, some of the merits and downsides noted in retrospectives were closely tied to the set-ups used. Good examples are the higher amount of work in filling and registering information in f2f interactions compared to web-based participation; the higher likelihood of reduced and terse communications in web-based participation; the highest yield from and satisfaction of participants in the longest running forms of collaborative design; and the costs involved per participant imposing limits as to how large the participating groups of people could be and how long the most in-depth forms of participation (such as the friends of CeLib) could last.

But beyond such obvious merits and shortcomings, the most salient cross-cutting feature of all collaborative design activities and their retrospective assessments was that they had been *permeated by* practical work, strategizing, and internal constituency competences, and that this permeation featured significantly in their merits and shortcomings.

28 Star and Strauss, "Layers of Silence, Arenas of Voice."

29 See Sarah Kuhn and Michael J. Muller, "Participatory Design," *Communications of the ACM* (New York: ACM, 1993); Kjeld Bødker, Finn Kensing, and Jesper Simonsen, *Participatory IT Design: Designing for Business and Workplace Realities* (Cambridge, MA: MIT Press, 2004); and James L. Creighton, *The Public Participation Handbook: Making Better Decisions Through Citizen Involvement* (Chickchester: John Wiley & Sons, 2005).

Permeation by mundane work was most evident in the preparation and refinement phases. As Jensen and Petersen point out, designers must make various simplifications and attend to practicalities to render participation meaningful in the first instance, and, once the wealth of complex materials from the collaboration has been generated, these complex materials need to be equally simplified to inform further design activities.³⁰ While there was considerable variation of what exactly the pre- and post-collaboration practicalities consisted of in the different collaborative design activities for CeLib, the amount of this internal work consistently affected *what could be made of the participations*. We discussed this above particularly with the CeLib Friends, but the issue was omnipresent. For instance, the weeks in total person-hours that were required even for the base-level review and analysis of the 2,700 library dreams meant that we could refine only the most salient themes and categories into themed descriptions. That these themed descriptions were available at the time when participatory budgeting commenced, meant that it was these themes that more or less had to be taken as starting points for pilot concepts for participatory budgeting. These project pragmatics “straddled,” to use Jensen and Petersen’s metaphor, common academic teaching about collaborative design that has rather stressed issues of democracy, equality, values, social structures, gender, methodologies, and so on.

The *permeation by strategizing work* resulted from collaborative design being harnessed to serve aims beyond design. The central library collaborative design was intertwined with PR and marketing aims, which is a common combination ever since the dawn of the idea of giving users a say over design solutions.³¹ Designers may be tempted to view the permeation of design efforts by other non-design objectives as compromising the design process, but such relationships are more intricate. In CeLib, the democratically ambitious and new activities for influencing the Finnish public sector, such as participatory budgeting and user design communities, were seen as good for capturing publicity. Gaining publicity for the project, in turn, allowed using CeLib marketing budget and much higher investments in participant recruiting and in pursuing a scale of participation that could not have been justified by the design gains alone. The connection to publicity and marketing also affected how the participation activities were conducted. Highly public and negative repercussions could have resulted from unprofessionally run events,

30 Jensen and Petersen, “Straddling, Betting and Passing.”

31 See General Motors, *Philosophy of Customer Research* (Detroit: General Motors, 1932); and Roland Marchand, “Customer Research as Public Relations: General Motors,” eds., Susan Strasser, Charles McGovern, and Matthias Judd (Cambridge, UK: Cambridge University Press, 1998), 85–110.

failing to publicize the results, or failing to act on them. This in turn affected the choice of formats, working methods, budgeting, reporting, and acting on the results—all for the better. The permeation by marketing and PR was thus an intricate and foundational condition to collaborative design in the CeLib project.

Regarding the role of engagement with a broader organizational staff, the uptake of citizen ideas and solutions depended squarely on how the staff in the branch libraries and the other planners and managers in the CeLib project took them up. Involving other staff directly in the collaborative design activities turned out to be a good way to gain traction—indeed, those who participated reported high satisfaction in learning more interactive ways to engage with customers and in taking a more active role in their work in general. However, involving or even sufficiently informing all the staff relevant for each participatory activity was challenging as the staff was tied in other work. At the same time, the execution of collaborative design activities hinged on the contributions from a greater number of people in the library organization than just the participation planner and the few interaction designers who had been trained in such activities. This set limits as to how complex collaborative set ups could be pursued, what kind of tools could be used in participatory events, as well as how deep analysis of the library dreams was feasible within the attainable time frame.

We have argued that mundane practicalities, strategizing work, and the involvement of wider organizational staff permeated the conduct, the relative merits, and the shortcomings of collaborative design activities. Thus, instead of viewing these factors as external ones that either aid or complicate collaborative design, they should be recognized as internal design issues, inherent in the *work of collaborative design*—this is work that designers (have to) do even though it goes beyond what has been thought of traditionally as designing. For public sector organizations, interactive design engagements with citizens can provide valuable new resources, but making the most of this potential requires skill in handling all the intertwined normative, strategic, and practical aspects of user participation. As these issues are likely to feature also in the private sector and peer-to-peer initiatives, they call for further comparisons and detailed studies.