A SoftGIS Revision:

Towards Digitally Mediated Locative Dialogue in Support of Urban Planning
Towards Digitally Mediated Locative Dialogue in Support of Urban Planning

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Abstract

This thesis presents an iterative design process beginning from assessment of an existing online map-based interface. The process draws from co-design concepts to determine interactions that could compliment current use of the online interface. Inspiration also comes from ethnographic practices and previous research that merges topics of technology and ethnography. The resulting interface proposal extends use of the existing interface beyond information gathering to support ongoing communication. This is accomplished through a two-fold strategy incorporating both revision to the visual design of the interface and recommendations for complimentary interactions in mobile, real-world contexts.

Keywords softGIS, ICT, urban planning, community informatics, space, place, people-centered design, interaction design
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The work presented in this thesis can be roughly divided into four parts: interface design, walking tours, workshop with related design probe activity, and the written thesis. Work for different parts occasionally overlapped and the complete work progressed over a time period of approximately one and a half years.
1.1 Motivation and Intent

This thesis presents an iterative process of revising an existing Web Geographic Information System (Web GIS) platform and further augmenting it with possibilities for community dialogue in support of urban planning. Because the topic was new to me, the first stage of this project concentrated on becoming familiar with urban planning practices and related Information and Communication Technologies (ICTs). I then continued to reflect on how current tools and practices might develop over time. However, regardless of a person’s role, experience, or stage of project involvement, iterative development can be an inherently valuable design approach. While priorities may be determined by immediate goals, the possibility to make future iterations ultimately elevates the value of the work.
Most of the references that supported development of the cases described in the thesis come from projects undertaken in Finland. Urban planning processes in Finland are strongly influenced by democratic legislation. This is in contrast to countries where interests such as environmental legislation have stronger influence (Wallin et al., 2012). Because there is a high value placed on democratic processes in Finland, an array of various participatory planning tools have been developed here (Wallin et al., 2010b, p. 10). One of the most important tools is softGIS, a WebGIS platform developed at the Centre for Urban Studies and Regional Planning (YTK) of Aalto University. The softGIS system uses a digital map interface that can be annotated by non-professionals. The collected annotations and related data analysis can then be applied to urban planning practices and data sets used by professionals. In this way, professional planners are linked with end-users of their work (Kahila & Kyttä, 2010, p. 22).

My interest in urban topics, and specifically citizen participation in the process of designing built environments, has roots in a design project I participated in with the softGIS research group at YTK. One interest of the group is to open channels of communication between diverse groups of community members and people, such as planners, who make decisions about features of the community’s environment. The research group designs participatory platforms, such as online map-based surveys using the softGIS tool, to collect data about users’ thoughts and experiences related to specific geographic areas.

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1 Yhdyskuntasuunnittelun tutkimus- ja koulutusryhmä / As of Spring 2012, the group is known as the Land Use Planning and Urban Studies Group
In this thesis, I start by revising the children’s version of the softGIS web interface in order to collect data within a global context. Different versions of the interface have been designed for adults and children. I participated in the redesign of one of the children’s interfaces in preparation for a multi-national data collection project planned to begin in Fall 2011. The topic of the project is children’s mobility and freedom to use urban space. The interface consists of survey questions combined with an interactive map. Its applications include participatory urban planning (Kahila, 2006, p. 10), comparative analysis of community perceptions and the built environment², statistical visualization (Kahila & Kyttä, 2010, p. 29), and regional trend mapping (Kahila & Kyttä, 2010, p. 31). The interface needed to be appropriate for users around a target age of 11 in the three countries. The style of the interface needed to be engaging to the user group and also conducive to clear reflection. It is not intended to be as sensational as a video game, but must be enjoyable to use. The balance between novelty and methodical data collection needed to be carefully considered.

While traditional GIS is commonly used to map features of physical space, the web-based softGIS method used in this project supports analysis of “soft” data such as individual perceptions and actions within a space illustrated on a digital map. In order to collect feedback about environmental perceptions, participants are typically asked to mark points on the map and make selections from pre-classified answers. There is also space in the interface for participants to provide free-form answers. The pre-classified answers have been adapted from iterative processes of open interviews and interactions. The most recent Helsinki project has collected surveys from about 1000 children.

² http://ytk.aalto.fi/fi/tutkimus/hankkeet/urb_onni_results/
The intent of the softGIS development team is to create an effective data collection tool. Collected results can be made available to survey participants and for use in various related projects. Examples of data recipients could include city planners evaluating public feedback on design proposals, schools interested in student health and safety, or police stations interested in comparing perceived danger with actual crime sites. Some surveys are designed to address general topics in a particular community and others are customized to examine specific project plans or problems. Because the same consistently collected data can be provided for use in a variety of projects, comparison of different projects could potentially add insight to interpretation of the data. For example, children’s mobility data collected from one of the locations in the multi-national softGIS project can be compared with green space in the same location where it was collected or it can be compared with mobility data from other participating locations. In the city of Tampere, softGIS was used to collect resident perceptions of safety. Planners compared the resulting data with urban infrastructure such as lighting to assess factors that influence perceived safety (Kahila & Kyttä, 2010, p. 29).

This thesis begins from a premise that maps are useful tools in participatory urban planning—(for example, as a boundary object (Singh, 2011, p. 43); narrative prompt (Silverstone & Sujon, 2005, p. 8); or comment archive (Gaver, 2001, p. 22)). The softGIS method is presented as one supportive element of a holistic design approach incorporating diverse stakeholder interactions. A combination of methods and tools are proposed as means of seeking practical understanding of current and potential uses of urban space.

After the initial revision of the children’s softGIS interface, I started exploring ways to collect qualitative data using digital media, as part of
investigations in urban space. Digital media have been widely applied to quantitative research methods (e.g. Reades, 2009; Vaccari et al., 2009).  
This thesis documents the potential use of digital media in qualitative data collection. The data collection process is intended to support iterative community dialogue around urban issues. In the interest of assessment and modification of urban communities, information flow and community engagement are suggested methods of maintaining open channels of communication. Graphic design is presented as an essential aspect of developing and guiding interactions throughout the planning process.

Graphic design can support various urban planning-related projects such as development of user-friendly tools and making statistical visualizations accessible and relevant to a wide audience. Through iterative processes, graphic designers can extend use of existing tools to contexts such as workshops and co-design activities. Furthermore, I found my role as a graphic designer to support communication between various project contributors (for example, programmers and researchers). Visual design topics necessitated bringing contributors together to negotiate and articulate perspectives and priorities.

The softGIS interface (which includes a digital map) is used in this thesis to collect information about resident perspectives on urban communities. The outcomes are then documented during the course of face-to-face interactions with the same residents in a range of urban environments. In this way, information collected via the map-based interface does not remain static. Through a process of communication, comments and topics of interest are given an opportunity to follow.

3 Also see, for example:
http://research.cens.ucla.edu/urbansensing/
http://senseable.mit.edu/visual-explorations-urban-mobility/data-lenses.html
a natural progression. This process potentially supports predictable, consecutive, unprecedented, unexpected, or even paradoxical interpretations of participant perspectives. The emphasis of this thesis is on promoting a communicative layer of interactions that compliment the informative layer of interactions made possible by the map-based interface.

1.2 Goals

This thesis is situated in an interdisciplinary design project. Working in the role of a graphic designer, I was first asked by the softGIS team to interpret materials (interactive elements of a digital map-based survey interface) used by urban planners and to represent these interpretations in a visual form that would be accessible to viewers who are not urban planners. The typical task of a graphic designer is accomplished in two general stages: first, observation of an (often) unfamiliar topic; second, expression of significant features. One of the significant features that emerged during the observation stage of this project was that the softGIS system simultaneously creates insights about feedback patterns and opens questions about respondent contexts.

In Chapter 4, I reflect on possible practical applications of the large quantity and variety of perspectives represented by softGIS survey responses. In that chapter I also review existing interaction possibilities of the interface including use location, frequency of use, and navigation possibilities. In Chapters 5 and 6, I suggest the potential to use the softGIS tool within a holistic process of collecting complimentary quantitative and qualitative data. In Chapter 7, I propose a revision of the interface based on integrating complimentary interactions explored in the previous chapters.
The softGIS system links subjective feedback with geographic locations visualized on a web-based map. Much of the data’s content is qualitative, however it can be visualized and interpreted through computational methods in order to observe possible trends, contradictions, or other topics relevant to urban planning. The complimentary data collection methods proposed in this thesis build on a feature that already exists within the softGIS interface. SoftGIS survey participants are asked to provide short statements that reflect their personal thoughts about a particular location. In this thesis, real-world interactions are used to generate detailed feedback on topics determined to be significant through web-based softGIS data collection.

In contrast to the softGIS research tool, the complimentary processes presented in this thesis are described in an experimental context. Therefore, the main goal related to that portion of the work was simply to produce a small amount of raw material from which to generate conceptual inspiration. After completing the interface redesign, I reflected on interaction possibilities presented by the web-based survey accessed through the interface. Typical interactions with the survey’s digital interface include: submitting basic personal information such as home location, type of home structure, and school location; drawing lines and points of significant routes and locations; answering questions about hobbies and daily activities.

I compared interaction with the digital map-based survey in school classroom settings to the experience of mobility within my own urban community (Helsinki and surrounding suburbs). Before deciding how to ask participants to interact with digital tools while walking around the city, I reflected on stimuli directly presented by the urban space. Factors that uniquely affect interactions with real-world urban space are logistics
and time required to progress from one location to another, constantly changing sensory and other external influences such as traffic, and an emphasis on current conditions rather than past events or future plans. I was particularly interested in whether urban spaces present motivation for people to consider future conditions of the spaces. Are people oblivious or ambivalent to influences that shape their familiar environments? The following questions framed my reflective process:

- What evidence of change is perceptible during daily activities?
- Are changes perceived as positive or negative?
- Do people actively express perceptions?
- Are perceptions related to past, present, or future conditions of the space?

Considering these questions inspired my inquiry into topics of information flow and community engagement. I set a goal to conceptualize methods of generating ongoing dialogue influenced by constantly transforming urban spaces.

1.3 Expected Results

SoftGIS research at YTK has been going on for many years. Plenty of raw data is available with which to build concepts and to suggest applications. Using the limitations of the map-based interface as inspiration, I evaluated what types of relevant information might be missed or filtered out through the process of using this tool. I considered alternative methods of
capturing the information that was being lost. This thesis does not discuss technological development of ICTs. Rather, it describes practicalities of merging ICT use with social interactions while reflecting on and moving through urban space.

The main limitation I saw potential to build on was context of use. The current web-based softGIS interface is best used in a focused in-door setting such as a classroom or community center. In these settings, it is easy to gather large numbers of participants in one location to collectively respond to the same survey. Furthermore, large desktop computer screens facilitate browsing various zoom levels of the digital map and answering consecutive sequences of extensive survey questions. In this systematic way, dominant trends of specific user groups can emerge without requiring variant details of user contexts to be accounted for during the analysis process.

Conversely, a constant flux of spontaneous sensory and socially mediated feedback from a range of real-world contexts could support collection of complimentary responses. The challenge, then, would be to substantiate the relevance of responses collected by one method to those collected by another. In this thesis, I propose ongoing communication as a key factor in establishing a basis of relevance between stakeholders and various data sets. One data collection method may reveal extremes or trends that can be further explored and actively developed if channels for ongoing communication are available.

Chapters 5 and 6 describe the process of staging simple real-world interactions in order to produce raw materials with which to illustrate potential to meet goals of promoting engagement with and reflection on environmental conditions. Chapter 6 also presents an example in which data generated through real-world interactions is correlated with
data collected via the map-based interface. While it was inevitable there would be a mixture of interests and perspectives, I was curious whether the small sampling I planned to collect might reflect extreme contrasts or reveal common themes and experiences. Chapter 7 integrates some of the data gathered during the exercises presented in Chapters 5 and 6 with the softGIS interface. The resulting interface proposal is meant as a starting point for development of more interaction possibilities that could compliment interactions with the softGIS interface.
2.1 Mixed Methods Research Models

This work is situated within the context of people-centered design in general and is informed by established models of mixed methods research. Various established mixed methods research models are available to guide coordination of goals, processes, and results. Qualitative methods can be used in order to prepare for quantitative research, simultaneously with quantitative research, or as a means of substantiating analysis of quantitative data. Within this project, qualitative methods are used to illustrate contextual factors related to data that has been previously collected through quantitative methods.
Although hybrid research models can be laborious to construct, the process supports consideration of the greater research context and collection of meaningful data. When an individual method is selected, it may be tempting to advocate or rely on the strengths of that method without giving sufficient thought to the context of its use. Research methods become increasingly more valuable when they are used with understanding of a greater context and can be adapted based on changing influences.

In this thesis I describe the potential of combining quantitative softGIS data with data collected during a qualitative exercise to create a rich and relevant pool of design resources. The processes of data collection are inspired by a mixed methods model called “explanatory sequential design” (Creswell, 2011, p. 81). This model is useful in situations where quantitative processes are likely to present new questions that cannot be answered with quantitative data. This is appropriate considering that softGIS data frequently contains allusions to abstract concepts such as sentiment, memory, and imagination.

2.1.1 Quantitative and Qualitative Data Collection

Both quantitative and qualitative research methods are incorporated into the softGIS system. SoftGIS is designed to support computational methods and to link quantitative data in systematic ways to related qualitative data. The softGIS interface serves as a common ground between professional GIS planning tools and basic digital interactions familiar to non-professionals.

Within this thesis, quantitative methods are represented by means of the softGIS digital web-based data collection tool. The web-based
tool facilitates visualization of trends and patterns derived from groups of diverse respondents. Although the responses are composed of soft data that may change often or be expressed and interpreted in multiple ways, the collection methods and geographic coordinates associated with responses remain consistent. One factor to consider regarding quantitative processes is the perception of precision. Using tools and methods designed with computational systems does not necessarily produce accurate and meaningful data. Although data might be inaccurate or not adequately contribute to set research goals, these flaws could possibly be masked by an appearance of thoroughness and precision. This affects both collection and interpretation of responses. Collection of meaningful data can be served both by careful planning of individual methods and by considering complimentary research methods.

Much of the information collected through processes that use softGIS tools is essentially qualitative in nature. For this reason, there is great potential to use results in coordination with more in-depth qualitative processes. In this thesis, a simple qualitative data collection exercise is described in order to illustrate this point.

As an influential research model within the context of qualitative sociological research, Grounded Theory is a meaningful precedent. A key feature of Grounded Theory is primary importance of data collection during early stages of research. Through the process of collection, topics emerge (Glaser & Strauss, 1999, pp. 12–18, 174–177). This thesis suggests that data collection processes can be a means of defining creative direction. Rather than gathering data in order to verify or evaluate creative proposals or completed projects, the data can be a generative element of the creative process.
2.1.2 People-centered Design and Planning

Throughout this thesis, I was guided by people-centered approaches of placing high value on the engagement of end-users in the design process. This project references processes of participatory design, co-design, and empathic design. According to participatory design methodology, participants commonly use professional tools with which to create contributions (e.g. Horelli & Wallin, 2010, p. 127). From the perspective of empathic design methodology, creative and documentary tools commonly remain in the professional domain (e.g. Lofthouse et al., 2005). Professionals use them to reflect an embodied interpretation of the informants’ experiences (which may include observation of informants using their own familiar tools). Research and design processes often benefit from a combination of different approaches. This thesis draws from different methods in service of generating people-centered results.

Co-design extends the ideals of participatory methods across a continuously transforming collaborative design process. A few essential components of the ongoing process are open channels of information flow within diverse stakeholder networks, a core of committed participants, and accessible modifiable tools (e.g. Horelli & Wallin, 2010, p. 121). Because of a wide range of environments, participants, and changing goals that emerge during the design process, co-design projects require especially careful management. Documentation, archives, time, and resources must be coordinated.

Advocates of participatory design are motivated by a range of potential benefits such as democracy and creative innovation. Participatory research and design have been established as useful methods particularly
in the fields of product and urban design (e.g. Jääskö & Mattelmäki, 2003; Saad-Sulonen & Botero, 2010, p. 62). Participatory design has origins in cooperative processes developed for use in Scandinavian workplaces. Levels of participation could be simply creation of a channel for planners to communicate project status to a community or could be a more extensive integration of various stakeholders in the complete design process.

An affordance of participatory design methods is the potential to ameliorate imbalanced power dynamics (Gotschi et al., 2009). Power dynamics can be affected, for example, by disparity of socio-economic identity between participants or simply by the presence of recording devices. Because these issues are quite common in many research settings, participatory design approaches might compliment other approaches being used at different stages of research.

A participatory planning method related to work presented in this thesis is Gåtur (“walking trip”). This method was originally developed in Sweden to support urban planning and has since been used to bring together diverse groups of people with various motives in urban environments (e.g. Konsti-Laakso & Salminen, 2010). Gåtur participants might include residents, planners, civil service and infrastructure maintenance representatives, business owners, and media representatives. The group typically walks together along a predetermined route in the area of a planned or completed project. Documentation of the tour may include notes, photographs, maps, drawings, and audio recordings. Afterwards, the group collectively discusses outcomes, which are later made available for professional analysis.

This thesis has also been motivated in part by empathic design principals. Empathic design methodology places researchers in respondents’ familiar environments. With the help of professional tools,
researchers document a subjective perspective of the respondents and their own embodied experience within the respondents’ environments. An affordance of empathic methods is that professional tools can be used efficiently without interrupting the normal activity flow of respondents (e.g. Lofthouse et al., 2005). This enables freedom of respondents to direct the nature of activities without concentrating on contrived tasks or interview questions.

2.1.3 Creative Design Methods

To link the described data collection and analysis processes with the goal of generating results applicable to design production processes, it is useful to present some creative methods of innovation. These methods provide frameworks for working with collected multi-sensorial data. An innovative design framework can support transformation of raw data into multimodal representations accessible to diverse stakeholders. Processes of generating and collecting raw materials directed by these methods can potentially attune designers with a creative dynamic that is relevant to the given context and also supports unexpected, interesting solutions.

In early stages of the design process, it can be useful simply to generate a large amount of raw materials. SoftGIS tools could potentially be used in service of this goal. More spontaneous approaches such as brainstorming, drawing, and design probes could simultaneously be used to contribute representations of extremes, novelty, and accident. Within the context of urban planning, another benefit of collecting end-user data during early stages of the design process can be establishment of communication channels.
During later stages of data analysis and design production, continued engagement with the audience depends on how the materials collected earlier are used and contextualized. Does the audience perceive the impact of their contributions? Are the results surprising or interesting? Various creative methods such as synectics (Jones, 1992, p. 278) have been developed as means of pursuing engaging design results. Innovative methods that build on ethnographic research methods have informed the work presented in this thesis (Ehn & Malmborg, 1998, p. 213; Pink, 2008; Silverstone & Sujon, 2005; Steen et al., 2007, p. 7). This thesis proposes that these methods could help create a rich collection of materials relevant and interesting to end-users of urban design projects. Focus on feedback generated through ordinary everyday activities is used as a means of relating arbitrary mundane experiences to more coherent collective community narratives.

Experimental ethnography attempts to reconcile context-specific conditions and dynamics of documenting ethnographic narratives. As illustrated in the work of Proboscis (Silverstone & Sujon, 2005, p. 10), experimental ethnographic methods are used to deconstruct socio-technological relationships. A key aim is negotiation of contradictory logics present within a network of cultures, personalities, and media interfacing with past, present, and future scenarios. Because this thesis builds on the topic of engaging diverse stakeholders separated by time, space, culture, and media within a common geographically defined community, it was beneficial to review problems and discoveries documented in the work of Proboscis. This thesis shares common conditions and data processing dynamics with Proboscis projects. An urban setting, technologically mediated dialogue, and the intent to construct a multifaceted community narrative are a few topics related to these shared conditions and dynamics.
Embodied sensory ethnography advocates a holistic data processing approach that may utilize video and other media to support its methods. The resulting recorded data is placed within the context of the researcher’s embodied experience (Pink, 2007b). Olfactory, haptic, audio, and visual feedback can not all be sufficiently documented by an individual tool. These forms of data require special considerations during collection and analysis processes. Multimedia documentation can aid a carefully attuned researcher in detection and recollection of rich sensory environments.

Sarah Pink has developed an approach of sensory ethnography through engagement with a wide range of communities. Through a process of walking in urban environments, sharing respondents’ everyday activities, and collecting digital documentation, Pink has revealed threads of common experience that connect disparate elements and construct coherent networks of people collectively engaged in the activity of place-making (Pink, 2008, p. 179).

The qualitative processes presented in this thesis rely on digital media for both personal notation and public documentation. More importantly, this data was collected in order to generate dialogue among participants. The majority of the digital documentation was collected by myself rather than by recruited participants. However, the digital recording methods were not specifically intended to document a particular perspective. The aim was to use digital media as an element of social interaction. Participatory visual methods—such as photo-elicitation (Bignante, 2010)—that emphasize response more than image analysis served as inspiration.

In addition to involving participants in design and research, considering my own experiences in coordinating participant interactions also needs to be addressed. Contemplating a balance between personal
expression and representation of the subject in reflexive research processes. Galanakis (2008) has described “a contextualised investigation wherein the researcher is as much a member of the field of research as the people whose everyday conduct and reasoning(s) the researcher investigates.” (p. 20). This consideration is particularly relevant in the field of urban planning where both professional planners and citizens who use urban spaces are invested in the results of planned projects. In some cases, planners may also be members of the community that will use the planned spaces. The role of the planner is never that of a detached observer interested in objective assessment of a community. Therefore, while exploring use of ICTs in support of urban planning, it was natural to define my role not only as a collector of data but also as a selective editor with my own personal responses to the environments being examined. Through the documentation, I implicitly and explicitly reveal my personal values, intents, and identity.
3 / Maps as Communication Tools

3.1 Maps Within the Context of this Thesis

Both digital and paper street maps are used in the work described in this thesis. Because the work initially concentrated on the softGIS online interface, most of the reference materials exist as online sources and include some version of a digital map. While my aim was to reflect on and develop the softGIS interface, this work emphasizes coordination of multiple media. For this reason, I have extended the following sections to include references to both digital and physical maps.
3.2 Mapping as Praxis

The word “map” can refer to any visualization of information. Within the context of this thesis, it refers specifically to visualized geographic information. Two central motivations direct the creation and use of geographic maps: negotiation and navigation. A map can be regarded as an artifact of social processes and as a tool for spatial processes. Social aspects of places are defined through processes of negotiation. Spatial features illustrated on maps are influenced by these negotiations and consequently inform the process of navigation within a given space. Basso (1996) has referred to examination of the relationship between places and human experience as “the ethnography of lived topographies” (p. 58). Beyond objective representations of space, maps can be seen as icons of this interactive dynamic between land and people.

An important topic to consider when referencing maps is control. Both creating and using maps impart senses of control, authenticity, and authority. Particularly when conducting research, it is important to be aware of influences created by use of maps. For example, even the seemingly mundane fact that maps commonly organize urban space as a network of major architectural structures and municipal boundaries establishes primary significance of these elements in any discussion referencing the given map. Urban infrastructure may serve the practical role of spatial definition, however not without the cost of implying a high level of inherent significance to the represented structures. Depending on level of detail, a more or less abstract response from the viewer may be elicited. A map with only a few obvious landmarks suggests these landmarks represent significant categories of reference. Conversely, a highly detailed photorealistic map may not suggest specific categories of significant landmarks, but rather may suggest that built structures in
general define the significance of an area. Furthermore, technology comfort level in general will affect a person’s interest in using maps. Individuals who have established positive associations with urban infrastructure may be more attracted to give extensive feedback to a map-based survey, while those with negative associations with maps and/or urban infrastructure may be more inclined to give brief or inaccurate responses.

The aim of this thesis is not to dismiss the usefulness of maps. However, it is important from the start to discourage assumptions about the neutrality of tools used in this project. Surveys based exclusively on traditional maps may suggest that answers to urban rejuvenation primarily involve funding for engineers and architects, while equal or preferable solutions might actually be achieved by channeling funds, for example, to biologists or historians. This hypothetical example demonstrates why designers and researchers should be motivated to seek various modes of communication and data collection for use in planning initiatives.

Maps have potential to serve as boundary objects. Maps appear in some form or another in the everyday lives of diverse groups of people. The type of information illustrated on a map and the material form of the map will influence whether people consider the given map to be a useful tool. In order for a map to fulfill the role of a boundary object, it must be possible to make context-specific modifications to the map that are meaningful to various groups of people. Using a map designed by one group of people in order to collect information about an area or another group of people is not necessarily a boundary object. It may simply be a specialized professional tool.
3.2.1 Digital Maps

Digital maps include simple vector diagrams, simulated 3D globes, composite satellite images, and augmented reality camera views annotated with geo-coded data. Interactive possibilities presented by digital maps facilitate experimentation, comparison, and modification of a map. These features can open use of a map to a wide range of user types and scenarios. Each scenario would require attention to how technical aspects serve as barriers and enablers to communication with various user groups.

3.2.2 Beyond Maps: Mediated Mobility

ICTs including telephones, navigation systems, the internet, and software used for research and entertainment are continuously altering perceptions of mobility and spatial awareness while simultaneously generating possibilities for data collection and dialogue. The effects are collectively influenced by technological development. Direct links between specific media and users do not sufficiently explain the complexity of this phenomenon. Activities such as negotiating boundaries, exchanging locative knowledge, and the philosophical process of placemaking may be experienced by an individual person in various ways depending on context or mood. Furthermore, if communication channels are opened or closed, a specific technology may be re-appropriated, discarded, or otherwise affected regardless of its potential usefulness. Consequently, ICT development must not only account for the dynamic state of current environments but also consider potential influential factors of future environments.
The Urban Tapestries research project developed by Proboscis in collaboration with London School of Economics and Political Science provides insight into relationships between people and technology in everyday circumstances. One interesting finding documented in this project is an unpredictable disconnect between technological comfort and general attitude toward technology. The research methodology defines four categories (“attitudinal clusters”) ranging from “aversives” to “enthusiasts.” Different technological comfort levels were reflected throughout the range of categories. (Silverstone & Sujon, 2005, pp. 19–29) An important caveat acknowledged in this study is that terminology used to categorize technological comfort commonly connotes positive associations with high comfort levels (Silverstone & Sujon, 2005, p. 22 footnote). Research models established on more neutral or even contradictory terms could potentially reveal paradoxical and unexpected expressions of technological comfort.

These topics present a basis from which to approach the task of defining an appropriate tool set for a given objective. Some questions to consider would be:

- Is the objective to assess a remembered past, observable present, or imagined future condition?
- Is the priority to collect a diverse range of responses or to target a specific group or topic?
- Can the objective be best achieved through a sequence of complimentary phases each utilizing different tools?
3.3 Examples of Locative Community Dialogue

Mediated community dialogue about real urban spaces has existed in various forms both integrated with and independent of digital technology. Web-based dialogue has existed since the earliest days of the internet. There are countless examples of sharing location-based knowledge for recreational, scientific, and commercial purposes. Both digital and analog tools have been developed to support this information exchange.

Some playful tools that promote shared community knowledge include: web archives of knowledge and events, blogs, portable digital documentation devices, and objects such as cards, cubes, and signs used to generate spontaneous dialogue (Appendix A). These examples illustrate the appeal and relevance of information collected through processes of mediated community dialogue. The experience of documenting and exploring everyday observations within the context of a specific community is potentially enjoyable as well as useful in practical ways.

Processes of spontaneous mediated dialogue manifested in venues of popular culture are reflected in participatory platforms that have been developed with the specific intent of supporting urban planning. Some platforms serve the simple purpose of promoting general participation and commentary within a given community. In contrast to platforms that are truly used as tools in planning processes, these platforms familiarize and engage communities with ongoing participatory processes. They can serve as archives and channels through which diverse community perspectives can exist as part of a larger collective voice. They can also serve the purpose of informing the public about progress of urban planning projects in local areas. Examples of this type of platform include, for example, informational community websites and comment forums (Fig. 1).
Two tools that have been actively used to support urban planning processes are Tell a Story (Fig. 2) mobile authoring software and Urban Mediator (Fig. 3) web-based forum. Tell a Story is a mobile application prototype developed by university students during an urban planning course in Autumn 2008 in cooperation with urban planners in Sevettijärvi, Finland. The application allows users to record audio, photographs, and GPS data. School children were engaged in testing the tool as participants in an experimental game organized within a two-hour workshop. The data collected during the workshop contributed to the municipality’s strategic plan. Decisions about road planning were influenced by the data (Halttunen et al., 2010, p. 88).

Urban Mediator is an open source server-based software that allows users to organize and share location-based information. Like Tell a Story, Urban Mediator has been presented in playful contexts such as in an art museum (Salgado, 2009). The software was developed and tested during the early stages of a traffic safety project. Information collected and processes developed during the project provided the City of Helsinki Planning Department with useful insights on the Malminkartano neighborhood and the potential development of ICTs through a collaborative approach (Saad-Sulonen & Botero, 2010, p. 61). Both Tell a Story and Urban Mediator have aimed to integrate the benefits of ICT use during enjoyable, familiar leisure activities with socially motivated goals. When used to support urban planning projects, ICT tools should ideally be accessible to diverse groups of people rather than a small segment of politically active citizens. Testing ICT tools in leisurely everyday contexts can be a way to develop approachable user-friendly features and interaction contexts.
URBAN PLANNING COMMUNICATION TOOLS

( accessed 8 September, 2012 )

KERRO KARTALLA
kerrokartalla.hel.fi

This map-based commenting forum is presented on the City of Helsinki’s municipal website. Locative comments are collected on a continual basis and viewers can browse an archive of all previous comments.

TAMPERE AND VANTAA COMMUNITY WEBSITES
mansetori.fi
vantaa.fi

These websites support discussion between citizens and city officials. They are managed collaboratively by both citizens and city officials. This is in contrast to community websites which are entirely maintained by private citizens and oriented toward dialogue within a given community rather than between a community and external government associations.

UBIQUITOUS HELSINKI
forumvirium.fi/en/project-areas/smart-city/ubiquitous-helsinki
kaupunginosat.net

Digital tools such as context-aware mash-ups, interactive locative services, and the “Kaupunginosat” system designed to support neighborhood websites called “virtual villages” were developed for this project. The websites support discussion, communication of complex planning processes in understandable language, and documentation of planning activities such as those associated with “Living Labs”\(^4\). While the City of Helsinki initiated the project, many tools and websites are mainly managed by the communities that use them.

\(^4\) http://openlivinglabs.eu/ourlabs/Finland
URBAN TAPESTRIES
research.urbantapestries.net

In this research project, participants documented the city of London while walking and carrying a mobile device. Points recorded by the participants are visualized on a map that can be viewed on the mobile screen. Besides location points, the device can record photographs, text, and audio. The pre-recorded data and software is also available for download from the project website. The project was developed by an independent creative studio in London called Proboscis and has coordinated a large network of academic, government, and corporate partners.

WEB-BASED DISCUSSION FORUMS
DEVELOPED FOR THE CITY OF ESPOO, FINLAND

espoonkeskus.fi
hista.fi
henttaa.fi

These websites support various types of discussion such as commenting on news items, map-based locative comments, and items for sale notices.
SoftGIS is a web-based service with potential to be used in all stages of urban planning projects (Kahila & Kyttä, 2010, p. 30). SoftGIS methods and tools are applicable not only to municipal planning and governance but also to academic and commercial aims. The technical components of the softGIS system include server-based map libraries, a database, and a web-based user interface. These components support consistent collection of scientifically valid feedback on topics related to mutable “soft” knowledge about the physical environment such as perceived safety, sentiments, and preferences. This feedback can then be combined with “hard” knowledge such as existing infrastructure, police reports, or environmental data to produce rich documentation of spatial dynamics.

A challenge embedded in continued development of softGIS is definition of the system’s role within a greater context of planning processes. A proliferation of participatory GIS platforms has facilitated public collection of location-based knowledge. This knowledge has consequently been increasingly available to support the work of urban planning professionals. The process of collecting and disseminating location-based feedback serves different purposes for various stakeholders engaged in the information exchange. While all stakeholders can benefit from channels that support flow of information, the information itself serves different purposes for different stakeholders. Development of GIS systems typically emphasizes professional planning formats and practices. However, there is great potential to serve professional purposes through consideration of formats and practices designed for everyday settings and activities. For example, GIS methods have potential to facilitate spatial thinking and social spatial patterns among diverse users within their familiar environments (Kahila & Kyttä, 2010, p. 23).
Figure 2  Tell a Story Mobile Tool Screen Shots

Figure 3  Urban Mediator Desktop Version Screen Shot
The process of generating feedback is an opportunity for individuals to reflect on past events, establish perspectives on current circumstances, and envision possible future conditions. These self-reflective actions can support community dialogue and sustainability in ways that do not rely on adaptations of infrastructure. This potential is something that is not adequately served by data collection models built on a template of professional urban planning practices. The value in developing GIS platforms that are accessible and useful for laypeople could ultimately serve to elevate the quality of data produced for use in professional practices. Motivation to create this type of data collection innovation can come from the synergistic effects of ICT use among diverse stakeholders.

An essential consideration in development of GIS systems is the relationship between quantitative results and meaningful interpretation. Regardless of the amount of feedback collected, the system should support intentional data collection processes and rich interpretive potential. It is not sufficient to create a database full of thousands of points on a map. The map must be a tool used in support of a carefully composed data collection process with clearly defined objectives and purposeful analysis. The softGIS system has been utilized in a range of contexts. It has supported creation of reports and data sets that have been useful to professional planners. This archive of materials can serve as a reference regarding contextual challenges and usability of results during future development of the platform. Whether a project is in a planning stage, ongoing, or in an assessment stage may affect which functions and processes can be supported by the platform. SoftGIS systems can potentially be developed in modular, customizable formats that can be applied to various contexts.
In the following sections, I present my experience participating in use and revision of the softGIS interface. I describe how various features serve to enable discourse about urban spaces and suggest future development of complimentary features and methods. The same digital web-based map is used within both quantitative and qualitative research processes related to this thesis. Previously collected data is available to inform my proposals for integration with data from other sources.

After completing the interface revision, I developed exercises to help consider ways to extend interaction with the interface. For my own explorative project, I decided to begin with a simple task within the context of the digital map and examine its implications by developing a complimentary real-world task. I arranged interviews and walking tours with several people. Each interview began by marking two locations on the online map and typing a brief descriptive comment about each location. We then made a walking tour of the areas indicated on the map while collecting GPS points, audio recordings, and photographs. Through comparison of various forms of feedback based on the same location, I hoped to gain insight on how information gets filtered as it develops from a subjective idea to objective data.
4 / Designing the Graphical User Interface (GUI)

4.1 Design Objective

At the time of my involvement with the softGIS group, the softGIS interface had already been in use for several years. The research group had several objectives in revising the interface. The most basic objective was to update the graphic style. Although survey participants might only interact with the system a few times, researchers continuously present the survey to people in a wide range of contexts (meetings, conferences, collaborative proposals, marketing). Because the graphic style must support interest not only for brief moments from its target users but also within a broader context of dialogue about participatory design, it was valuable to revise the graphic style along with overall development of research processes and initiatives.
Figure 4
Previous children’s softGIS home page (Finland)

Figure 5
Revised children’s softGIS home page (Finland / Australia / Japan)
**Figure 6**
Previous children’s softGIS GUI (Helsinki)

**Figure 7**
Revised children’s softGIS GUI (Helsinki)
Specifically, plans to launch a multi-national data collection project utilizing the children’s softGIS survey required adaptation of the Finnish model to surveys for two other international locations. The development of new surveys for Japanese and Australian children was the main reason for redesigning the interface. Instead of simply using the original Finnish website as a template for the two new sites, a single portal for all three surveys was designed (Figs. 4 & 5). The new home page of the children’s softGIS website introduces all three surveys. It was important to present the international scope of the project on the first page to each person who interacts with the site. Country-specific color schemes were developed to distinguish the Finnish, Japanese, and Australian surveys.

Although the design revision could more accurately be described as a stylistic “refresh” than a thorough overhaul of the website’s structure and components, there was some consideration given to navigation functions and user experience throughout the site. Within parameters set by the interface programmers and softGIS researchers, some simple modifications were implemented. Vibrant colors were used to bring more active energy to the user experience and to visually link interactive components. A weakness of the previous interface had been lack of obvious feedback to the user regarding progress through the survey. It is typical for users to navigate back and forth between previously completed sections. Feedback on which sections had already been completed needed to be communicated in addition to an indication of current section.

4.1.1 Developing Radial Graphics

At an early stage of the design process, radial graphics were developed as a reference to the iterative process of participatory urban planning. Some
versions were abandoned in order to avoid similarities with earthquake visualizations currently circulating in the media as a result of a tsunami in Japan (Fig. 9). Because one of the participating groups was located in Japan, special consideration was given to avoiding associations with media images related to this area. Although the early versions of radial graphics were based on compass points and the process of navigation, they resembled illustrations of seismic waves. In order to avoid this association, gradients, transparency, and groups of multiple circles were abandoned. The final softGIS radial icon (Fig. 10) is composed of an individual opaque circular form divided into multiple sections. The design implies coordination of parts in support of a continuous process.

4.1.2 Mobile Applicability

Although the current version of the site is intended for use on desktop computers in school classrooms, the site could potentially be extended to use on mobile platforms in the future. In consideration of this possibility, mobile interactions with existing features were considered. The home page buttons are large colorful forms that are easy to distinguish and select on hand-held screens (Fig. 11). Most of the text information within the site is contained within narrow panels on the left side of the page and can be easily contained within both vertical and horizontal tablet and mobile column layouts.

Mobile devices may support a wider range of contextual data than desktop computers. However, mobile data collection also would require reconsideration of the entire data collection process. Some data that is currently collected via survey questions could be automatically captured via mobile technology. Furthermore, participant recruiting, delivery of
Figure 8
Early versions of radial icons

Figure 9
Earthquake graphic (accessed 16 October, 2012)

Figure 10
Final radial icons
feedback requests, and coordination of resulting data would require mobile-specific planning.

4.2 Results of the GUI Design Task

Reflecting on the interface design task from a graphic designers perspective, I returned to the general design stages introduced in Chapter 1: observation and expression. One significant observation was that the interface supports urban planning processes by collecting qualitative stakeholder insights. This interaction exists within a greater context of various stakeholders’ ongoing activities. While my task as a user interface designer did not rely on thorough understanding of the project’s greater context, I used this observation to bring the added value of contextual relevance to the visual design. By creating a single portal for surveys used by residents of three different cities, the visual design served to present the international context of the project to each individual participant. It is not necessary for each participant to respond to the surveys intended for use in other cities. Regardless of which survey is selected, the participant understands immediately that the results will be part of an international project. An essential feature being expressed through the visual design.
was communication of a context beyond each stakeholder’s individual interaction with the digital map-based tool.

A natural progression from my work on the interface design was to extend an emphasis on context to urban planning processes beyond collection of stakeholder insights. I came to distinguish the insights collected via the map-based interface in the form of brief comments from a greater potential for ongoing communication between stakeholders. I considered what interactions might compliment information being collected via the digital map-based survey. Stakeholders who were willing to give feedback via the web interface might potentially be motivated to more actively participate in urban design projects. I hypothesized that adding a “communicative layer” to the existing “informative layer” of map-based feedback could support this participation. In addition to gathering useful insights, the interface could initiate ongoing communication channels and document results of interactions occurring at other venues.

Mobile platforms would be one direction of development to explore. However, at this stage I did not want to focus on practicalities of implementing a specific technology. Instead, I chose to focus on defining the theme of contextual data. I aimed to determine what types of data could be collected in urban spaces and what would motivate people to share their perspectives on urban spaces. The next step was to define some complimentary interactions and venues.
5.1 City as Multimodal Interface

The process of collecting feedback from the general public on a variety of everyday topics inevitably leads to questions about the range of respondent contexts. For this reason, I chose to present the potential of using a softGIS interface in combination with other methods that could contribute to analysis through explaining, complimenting, or triangulating data. For example, analysis of digital map-based responses can show trends and patterns (Fig.14). These patterns may represent sentiments such as strongly polarized community opinions or concentrations of contrasting individual perspectives. However, insights on sights, sounds, tastes, smells, textures, and sentiments manifested within various urban contexts may uniquely influence response patterns when recorded while they are being experienced as opposed to recorded while using a map interface to prompt selective memories.
Precedents for on-site participatory planning can be found, for example, in the “Place Performance Evaluation” utilized by Project for Public Spaces (PPS). PPS has developed activities to engage participants in gathering user-oriented insights on urban locations. This playful method of gathering qualitative data has been equally successful with professionals and non-professionals of various ages.

The Presence Project funded by the European Union in 1997 is an example of coordinating and gathering on-site data from three international communities in the interest of increasing presence of the elderly in public places. The forward to a book documenting the Royal College of Art’s role in the project begins with a statement about the limits of ICTs (Gaver, 2001, p. 7). The author of the text, Jakub Wejchert, has taken care to differentiate a “non-rational” mental state that motivates and positively influences various everyday activities from a less purposeful “irrational” mental state. This non-rational state is a rich source of authentic and meaningful human perspectives. This state is also very difficult to document exclusively through the use of rational tools and analysis methods supported by many ICTs. In order to tap into this source of meaningful spontaneous ideas, The Presence Project utilized probe kits to collect feedback from people engaged in typical daily activities in their own familiar environments. Rather than relying on or excluding a particular “rational” or “non-rational” technology, the probes were customized for each of the three locations and offered various optional methods of recording feedback. The non-rational aspect of the probe-kits was based on the participants’ freedom to respond by using whichever method inspired them. Postcards, maps, stickers, cameras, and kitchen timers were some of the items included in the kits.

http://pps.org/workshops/
5.2 Use of Personal Narrative in Research

The data collection process is presented in this chapter in the form of a personal narrative. Personal narratives and observations have been used in a range of research contexts. Narrative documentation is common in sociological and ethnographic research, which may be relevant to urban design projects. Beyond these fields of study, narrative documentation has also been a method applied to the study of environmental topics. Sociology, ethnography, and environmental research are likely to be merged during urban design projects. Examining the dynamic between people and places can help define creative direction when working in an urban context.

Glaser and Strauss (1995) have discussed use of “human documents” such as letters and life histories combined with familiarity of a topic “made in a variety of ways” in service of generating sociological theory (p. 13). Taking a historical perspective on qualitative research, they observe that in the late 1930’s qualitative data was used “in a nonsystematic and nonrigorous way...In addition, monographs based on qualitative data consisted of lengthy, detailed descriptions which resulted in very small amounts of theory, if any.” As examples, they site urban sociological studies made by the Chicago School focusing on topics such as gangs, ghettos, and hobos. Simultaneously, “…quantitative methods initiated the zeal to test unconfirmed theories with the ‘facts.’ Qualitative research, because of its poor showing in producing the scientifically reproducible fact, and its sensitivity in picking up everyday facts about social structures and social systems, was relegated...to preliminary, exploratory, groundbreaking work...Then, of course, quantitative research would take over, explore further, discover facts...” (p. 15).
A contemporary example of including narrative documentation in research on environmental topics has been discussed by T. Edward Nickens (2007). Nickens describes work by Boston University researchers investigating climate change in Massachusetts, USA. The research process includes referencing seasonal observations in daily journals written by the naturalist Henry David Thoreau⁶. Although it took researchers “nearly nine months to decipher Thoreau’s famously poor handwriting and archaic species names and plug the information into a usable spreadsheet”, the journals are considered a valuable element of a data set including arboretum specimens, photographs, and other local citizens’ historical and contemporary writings.

In this thesis, I have included brief narratives in the interest of contributing to a qualitative approach of data collection. I have not attempted to create comprehensive documentation of the interviews. I simply suggest a potential to use narrative documentation for purposes other than exploratory research. For example, the results of these walking tour interviews could be used to generate creative directions in support of iterative, engaging design processes. The data collected could inspire ongoing dialogue and attract participation from diverse community members through informative campaigns or co-design activities. In the

⁶ Thoreau’s unique narrative voice is represented, for example, in the following excerpt of a journal entry from October 18th, 1857:

In Lees wood—white pines leaves are now fairly fallen (not Pitch P—yet)—a pleasant soft but slippery carpet to walk on—They sometimes spread leafy twigs on floors—would not these be better? Where the pines stand far apart on grassy pasture hill sides these tawny patches under each tree—contrast singularly with the green around
next chapter, I present qualitative data produced by community members in service of an explanatory approach to working with quantitative data visualizations.

5.3 Walking Tour Interactions Process

I used quick prototyping with existing digital technology and social interactions to explore the topic of locative media in a range of urban contexts. I arranged five walking tours, each with one volunteer participant. The tours were conducted throughout a six-month period between winter 2011 and spring 2012. This activity was not significantly influenced by time-constraints and participants were recruited during the course of my everyday activities based on their genuine interest in urban spaces. This casual approach proved to be a successful means of contacting a diverse and motivated respondent group.

During the walking tours, it was my primary interest to experience the city from multiple perspectives through individual meetings with people. I did not ask them to produce documentation or contribute any information that was outside the context of a casual conversation and walk in an area of their choice. I used these experiences to build a multi-faceted narrative based on my collected impressions. The result is quite different than if I had simply chosen several different urban locations to describe from my own perspective.

The walking tour process I followed differs from Gåtur in that it was designed as an activity for one researcher (myself) and one volunteer respondent. Also, it was important that each respondent be allowed to spontaneously direct the route. I was not seeking feedback on any specific urban features. The goal was to establish a locative activity wherein
the participants (including myself) had as much freedom as possible to articulate their own unique perspectives on the urban spaces they were familiar with. While Gåtur incorporates aspects of both information gathering and communication, the walking tours in this thesis concentrate primarily on the possibility of developing communication channels.

After explaining the premise of the activity, respondents were asked to choose a starting point for the tour. A requirement of the starting point was that it should have internet access and space to sit with a laptop computer while recording initial responses on the softGIS digital map interface. During interaction with the digital map, respondents were asked to give feedback on their thought-processes. They were asked to verbally communicate what they noticed in the interface and why they made interaction choices. This process was used to record the range of technological interaction experiences represented by the respondent group. Documentation of the walking tours reflects the range of experiences expressed by different users within relatively standardized urban environments (areas composed of elements such as buildings, roads, flora, and fauna). Two response comparisons are possible. First, an individual user’s responses to the map interface can be compared with responses to the city interface. Second, all users’ responses can be compared within the context of the map interface or the context of the city interface.

Before beginning the walking tour, each respondent was asked to indicate one positively perceived and one negatively perceived location on the web-based map of Helsinki. The collection of liked and disliked elements is a basic classification commonly used in researching public opinions (Singh, 2011, p. 43; Kahila & Kyttä, 2010, p. 30; Halttunen et al., 2010, p. 86). Although “good” and “bad” may not be deeply meaningful classifications for use in qualitative data analysis, these classifications are
often used as a starting point for further investigation and discussion. Qualitative approaches aim for rich understanding of complex narrative layers that can’t be defined in binary terms.

After points were selected on the digital map, we walked together to both locations. Factors such as participant preferences, weather, and available transportation guided the process. The routes were documented with the GPS receiver, audio recorder, and still image camera of a mobile phone. In addition to information about specific points indicated by respondents, the process of transit, sensory cues, and social interactions are included in documentation of the walking tours. The presence of digital recording devices (GPS, audio, and still image) was inevitably a significant guiding factor. Routes were occasionally determined or changed because of what was possible to record. I documented the process while allowing participants to make decisions about the route.

The two locations indicated before the walking tours on the softGIS map—(one positive and one negative)—designated the intended walking tour destinations. The main goal of the walking tours was simply to have more in-depth documentation of the chosen locations than was possible through brief interactions with the digital map in the web-based interface. However, a secondary goal was to check whether there would be discrepancies between points chosen on the web-based map and points recorded by GPS while on the walking tour. It was explained to participants that the points chosen on the web-based map should indicate the same locations that would be documented on the walking tours. When we arrived in the general vicinity of a chosen location, I asked participants to tell me when we had arrived at the specific place they had indicated on the web-based map. When the participant indicated we had arrived at their intended location, I recorded a GPS point.
Despite this general guideline, I did not attempt to limit the tour by aiming for precise correlation between points initially chosen on the web-based map and GPS points recorded during the tours. If a participant changed his mind about a location or became disoriented, I asked him to make the decision about what should be recorded. The purpose of checking for discrepancies between web-based map location choices and recorded GPS locations was not to determine which represented greater accuracy of the participants’ intended responses. Rather, it was an opportunity to examine how participant feedback gets filtered depending on the types of tools and methods used. The walking tours were designed to collect feedback on two specific urban locations from each participant. However, because multiple tools and methods were used, the feedback inevitably grew to include more than two specific locations. Explanation of how tools affected participant feedback is included in the following narrative documentation of the walking tours. Distance between GPS points recorded on-site and initial points chosen on the web-based map is also included in a collective summary of results of the tours (Fig. 12).

5.4 Tour 1: Sonja / 17 October, 2011

The first tour took place on a weekday afternoon in Myyrmäki, a suburban neighborhood near Helsinki. Sonja is a retired corporate secretary who lives alone in a small apartment building. We met at her apartment and then walked to a forest area across the street from her apartment. The weather was fair. It was a pleasant day to be outside.
5.4.1 Digital Map Interaction

Sonja is not familiar with using web interfaces and did not understand how to use the navigation buttons. However, she has a lot of experience using paper maps for outdoor orienteering activities and enjoyed looking for locations on the digital map after receiving some guidance in using the interface. It was particularly difficult, however, for her to select points in her neighborhood’s forest areas. She managed to mark fairly accurate locations by using streets and buildings as cues. She was disappointed in the detail of the natural areas and would have preferred to show me points on her own terrain maps.

5.4.2 Location choices

The selected positive location was a hilltop sports area in the forest. In the winter, children and teenagers use it for snow sports. Sonja does not participate in the snow sports, but occasionally walks nearby during all seasons. It is interesting for her to watch the changing environment through the seasons and interact with the different people who visit the area. This choice reflects an interest expressed by several interview participants in environmental features that they do not directly use. It was common for participants to express interest in the activities of others and appreciation for features that enabled those activities.

The selected negative location was an area of the forest between the trails. Sonja often walks through this area, but it is not possible to walk there when it is flooded. The flooding is considered to be an inconvenience.
5.4.3 Walking Tour

We began walking from Sonja’s apartment. We walked along a dirt footpath through a small patch of trees to the street from her building. Amidst the trees near the apartment buildings there is a place for composting plants and a recreational area with space for a volleyball net. The forest edge is next to her home, so we quickly walked away from the city street. There are some things in the area that Sonja appreciates—(for example a mat washing place at the edge of the forest)—but she mentioned that it is not an especially good area for enjoying forest atmosphere. She often uses this route to get to trails and forest areas that she likes. We soon arrived at the negative location. Today, the area was actually dry although other areas were flooded. Sonja commented, “Other places are drier. There are more stones, more stalks, better plants...this is dull. For my eyes there isn’t anything here except at spring time.” The recorded GPS point was about 300 meters from the point indicated on the digital map.

Next, we walked up a hill along a trail towards the positive location. Along the way, Sonja pointed out some edible plants: nettle leaves and fern roots. We also passed a fire pit built from stones collected in the area. The recreational spot in the forest Sonja had indicated as a positive location was visible from the top of the hill. Since there was no snow, it wasn’t being used for sports. The recorded GPS point was about 50 meters from the point indicated on the digital map.

5.5 Tour 2: Maari / 6 February, 2012

The second tour took place on a weekday evening in central Helsinki. Maari is a media designer who works close to home and spends a lot of time with her two children. We met at a cafe near an area she likes to visit in her free
time. It was a cold, dark evening with lots of snow on the ground. The coldness and darkness made it difficult to make digital recordings. My hands were numb and the buttons were difficult to press while wearing gloves. We decided to walk part of the way through indoor tunnels and buildings such as the train station, but could not record GPS points in those locations.

5.5.1 Digital Map Interaction

As a media designer, Maari was very articulate about her observations while interacting with the digital map. Her navigation choices and interpretation of the visual components were informed by similar interfaces she had seen in the past. Her comments were mainly based on the navigation buttons and interactive components. She found the points she was looking for on the digital map quickly and did not comment on the map’s accuracy or specific features.

5.5.2 Location choices

The selected positive location was Tervasaari which is a small island connected to the shore by a 200-meter-long bridge. There is a restaurant and a dog park on the island. Maari does not visit these places when she goes to Tervasaari. Like many other visitors, she simply enjoys walking on the trail around the island. There are many spots to rest and enjoy views across the sea towards various natural and urban scenes in the surrounding vicinity. Large ships and small private boats share the waters nearby. Cars can drive over the bridge to the edge of the island, but they must be parked at the end of the bridge. There is only foot and ski traffic on the Tervasaari trails.
The selected negative location was a tunnel through which one can walk to many places connected to the central train station. It is very convenient and many people use it in all seasons throughout the day and night. Despite being a highly visible element of Helsinki’s infrastructure, it does not appear to be valued or well cared for. The building has been worn from use and features such as signs and security cameras create a menacing impression on the space.

5.5.3 Walking Tour

We met at a cafe near the central train station to set points on the digital map. From there, we walked across the central part of the city to the eastern shore. Both Maari and I have nostalgic associations with the neighborhood we crossed through because we had previously lived there. As we walked, church bells played an unusual melody adding a sentimental quality to the environment. We noticed hidden historical features and things that triggered personal memories. This was another instance where an interview revealed the participant’s appreciation for something that was not directly a part of her own everyday activities. Maari pointed out a funeral parlor that has become an iconic institution in the neighborhood. It has been there for almost 100 years and retains an almost fictional or cinematic early 20th century aesthetic.

The trail around the island was thickly covered with fresh snow. Even though the days had been cold and dark, there were lots of footprints indicating that this is a popular spot year-round. The recorded GPS point was about 100 meters from the point indicated on the digital map. The point selected on the digital map had been a general marker intended to identify the whole island (although it was placed in the water near the
island). The GPS point identified a spot where Maari showed me one of her favorite views from the island. Maari shared the following thoughts about Tervasaari:

> It used to be a harbor for loading ships with tar...The reason I really liked the area was that when I used to live here...the whole island was quite in its original form. Not much was done for it...I think there were benches and there was grass...but it was still, like, not a very designed park. And what was wonderful about it [was that] there was still the smell of tar...it was really nice.

> Then what happened is that they actually renovated the whole place...the land that had this tar in it was considered an environmental hazard...so it was peeled away...and what is sad about it is that the smell actually disappeared...I've been thinking that some day...someone should take the smell back to the island...because that would be really easy to do...you would just have to have, like, pots of tar hanging somewhere...or paint a fence or house with it.

The conversation about the smell of tar turned our attention to other locations where a particular smell had become a cherished part of local intangible cultural heritage: Chicago’s Blommer Chocolate Factory⁷, or any neighborhood with a coffee roaster, brewery, or bakery. Some ethnographic researchers are specifically trained to identify and document olfactory data.⁸ Visual means of documentation can include images of vapor, steam, rotting, light, mold, and dust.

⁷ http://time.com/time/nation/article/0,8599,1159401,00.html/
It took about 15 minutes to walk from the island to the negative location near our starting point at the central train station. After entering the station, I was not able to collect GPS points, but Maari described her thoughts about the route and I took photographs as we walked. I recorded a GPS point at the place where we resurfaced to street level. The GPS point was about 50 meters from the point indicated on the digital map. The map point, in this case, was a more accurate indication of the location Maari described than the GPS point.

The tunnel that Maari dislikes connects two very nice areas: the beautiful central train station and the shopping area around the old University of Helsinki student union. The train station was designed in the early 20th century by Eliel Saarinen. The neo-renaissance student union building was designed in the 19th century by Axel Hampus Dahlström. The underground tunnel is embellished in some areas with unique features such as brass-clad pillars, brass railings, and modernist light fixtures. However, these are damaged and covered with stickers and graffiti. Pieces of walls and ceiling panels are broken. Some lights are not working. All the surfaces are dull and filthy. Underneath a sign forbidding drinking and smoking is a puddle of spilled drinks and smashed cigarettes.
As Maari describes it:

“So undervalued” is the impression that it makes every time you go from here. Then it becomes really nice suddenly. But that bit, everything about it says that no one owns this area and no one cares about it. Do here whatever you want. Break windows. It will get ruined anyhow. It feels like someone gave up.

During the interview and walking tour with Maari, a general theme emerged related to the basic care that brings value to urban spaces and makes them enjoyable to explore. Rather than having new parks or attractions to visit, many people simply enjoy making discoveries and learning about other times or others’ perspectives on familiar environments.

5.6 Tour 3: Julie / 23 February, 2012

The third tour took place on a weekday afternoon in central Helsinki. Julie is an American industrial designer who lives in a quiet residential area on an island in the western part of Helsinki. She has been living in Finland for a couple years. We met at a university lunch room to set points on the digital map and then took a bus to the center of the city to the area of her chosen locations. There was some snow on the ground, but the day was bright, clear, and pleasant for walking.
5.6.1 Digital Map Interaction

Julie has a background in architecture and is familiar with professional architectural software and digital tools. She was very comfortable interacting with the map, but was critical of other elements of the interface. She didn’t like that some sections of the survey deactivated the map. The map was the main element Julie was interested in interacting with and was frustrated when it wasn’t available to interact with or even to look at. Both of Julie’s chosen points were located in buildings that she was able to precisely identify on the map.

5.6.2 Location choices

The selected positive location was a cafe on a quiet side street in the neighborhood of Julie’s work place. The atmosphere of the neighborhood and quality of the coffee are the essential positive features she mentioned. It is convenient for her to stop here quickly and is also an enjoyable spot to rest or spend some free moments in the middle of a workday.

The selected negative location was an indoor shopping center at a busy intersection in the city. Julie generally avoids this building, but has tried using it as a short-cut across the city. Navigating through the building is disorienting and considers the experience of being inside the building to be unpleasant.
5.6.3 Walking Tour

Our first destination was the negative location. It is an indoor shopping center with several floors and tunnels connected to other buildings in the area. It is convenient in winter to use the tunnels to move through the city without going outdoors. Lots of people use the tunnels year-round as an extension of public space in addition to visiting specific shops. For Julie, aesthetic qualities of the shops and general environment, loud music, recorded announcements, and uninspired or anxious expressions of the people in the space are features that cause her to avoid this building. Divided spaces, hurried pedestrian flow, and an artificial atmosphere are prominent features of this shopping center. The atmosphere sharply contrasts a traditional market hall with interactions between vendors, natural soundscapes, and semi-permeable barriers between shopping areas and the outside world.

From the shopping center, we walked about 1 kilometer to the cafe Julie had indicated as a positive location. The cafe occupies a small space with a front door that opens to a quiet street. There is room for a few people to sit along a narrow counter and some shelves of coffee accessories and equipment for sale. I later learned from another person that the same location had previously been occupied by a lunch cafe but had been too small for serving many people. The person speculated that it may not have been profitable enough to stay open. Probably a coffee shop that can serve drinks to walk-in customers rather than meals to people sitting at tables could be more profitable. The person misses the cozy eating place that closed and the friendly people who owned it. In any case, the location itself seems to provide a welcoming atmosphere for people in the neighborhood regardless of opinions about the specific business that have occupied the space.
5.7 Tour 4: Miikka / 12 April, 2012

The fourth tour took place on a weekday afternoon in Arabia, a neighborhood in northern Helsinki. Miikka is a university staff member. He took a break during a busy workday to participate in the interview and walking tour. The weather was cool and calm with a cloudy sky.

5.7.1 Digital Map Interaction

Miikka has a background in game design and digital visual effects for film. He is a creative person whose hobbies and work involve experimentation with digital interactions and interfaces. He took time to explore the mapping software navigation before answering questions. He followed instructions precisely and systematically searched for solutions when encountering problems.

5.7.2 Location choices

The selected positive location was a sculpture exhibit in a university gallery. The gallery is in the same building in which Miikka works. The theme of the exhibit was ceramic robots. Some robots had audio or light components. The sounds were designed using ceramic parts or processes. The building’s history as a ceramics factory and its current identity as an art school were both reflected in the presentation of the exhibit.

The selected negative location was the general area along the seaside. The university is about 500 meters from a bay. The shoreline runs for about 2 kilometers along residential and recreational areas near the university. The area is known as a place to relax, play sports, look for birds, and enjoy nature. Miikka recalled visiting the bay on a day when he had
some free time and wanted to enjoy the natural environment. He had been disappointed to find a rather dull scene. The water was stagnant and debris was collecting amidst the rocks.

5.7.3 Walking Tour

We took an elevator to the top floor where the gallery is situated. Dramatic lighting cast shadows on the walls. Colored tape formed geometric patterns as part of a display of robots. The twisted curves of a brightly colored electrical cord overlapped the sharp edges of the taped pattern. A designer bench was pushed against a wall, stained with an empty wine glass left sitting on it. A wooden palette stenciled with the ceramics department’s label was left on one of the pedestals. Residue of the creative process merged almost seamlessly with the exhibited sculptures. The strange lighting, sounds, and absence of people created a potentially eerie or peaceful feeling. Like a satellite hovering a short distance away from the activities going on in other parts of the building, the gallery provided an opportunity to discover something unusual. This location was indoors, so I needed to hold my GPS device out a window to record the point.

We walked from the university building to the negative location at a nearby bay. Miikka had visited the shore within the past few months at a location about 1 kilometer away. Instead of walking to the same spot Miikka had previously visited, we went to a spot near the university that he suspected would be similar. When we got there, he confirmed the scene was similar and simply not very inspiring. Miikka’s observations about the shore belie the fact that this spot is a popular location for leisure activities. There are a lot of people who value spending time there. This is my own current neighborhood and I enjoy collecting wild edible plants in summer
and walking or skiing over the frozen sea in winter. However, it is also true that there are significant levels of toxicity in the soil in this neighborhood and there are other places in Helsinki I might prefer to go to enjoy natural scenery and atmosphere. From my perspective, Miikka’s comments scratch the surface of the neighborhood’s stereotypical identity. It may often be valuable to consider paradoxical aspects of popular sentiments. An area may be well-liked by a certain number of people or may have various impressive features and yet still hold potential for reconsideration or improvement.

5.8 Tour 5: Juhani / 12 April, 2012

The fifth tour took place on a weekday in Kumpula, a neighborhood in northern Helsinki. Juhani is a political science doctoral student who has been actively involved with Helsinki politics for many years. We met for lunch at my school in the Arabia neighborhood and walked to his school about 1 kilometer away in Kumpula. It was a pleasant sunny day, but we were rushed trying to fit both eating and walking into a weekday lunch break.

5.8.1 Digital Map Interaction

Juhani is a long-time Helsinki resident. He goes to school in Kumpula and his father lived in Arabia as a child. Because Juhani is very familiar with these neighborhoods, he had a lot to say about them. Looking at the map inspired lots of memories and ideas. We didn’t have time to record most of them and Juhani would have liked to mark more than two points on the map. Historical anecdotes, a crime scene, and personal memories were some of the stories related to buildings or areas Juhani noticed on the map.
5.8.2 Location choices

The selected positive location was the cafe where we met for lunch. It was a convenient choice because of our time constraints. But it was also an authentic sentiment since Juhani had suggested meeting here in the first place because he likes it. The cafe is at my school, which is not a place Juhani spends much time. Juhani was happy to have an excuse to change the typical routine of his day and eat lunch there.

The selected negative location was a student apartment building. Juhani has only been there a couple times. The architecture didn’t have a particularly inviting feeling. The main thing he remembered about the building was an enclosed glass hallway that is too hot on sunny days and too cold on winter days.

5.8.3 Walking Tour

We met at the cafe that Juhani designated as a positive location. Juhani was waiting for me at a door that opens onto the public street. This is the only one of the two entrances Juhani knew of. I recorded a GPS point near this door. The other entrance on the opposite side of the cafe connects to the school building. Because I am more familiar with the cafe than Juhani is, I have a lot of my own associations with the place. Part of our conversation was based on sharing my perspectives. Juhani had some questions about the food and I pointed out that the cafe sells a cookbook of its recipes. Juhani didn’t comment much specifically about the cafe. But he enjoyed relaxing there, taking time to look at the digital map, and telling stories about the neighborhood in general. Juhani was interested in seeing the other parts of the building that the cafe is connected to, so I took him on a quick tour on our way out.
After leaving the school building, we were again in an area familiar to Juhani. He told stories about the tram stops and walking trails. The area between the two schools is a nice neighborhood for walking. Juhani mentioned that he likes the colored wooden houses and the tree-lined paths. This residential area is separated from the neighborhood of Kumpula by a large busy street. The apartment building that Juhani designated as a negative location is situated on the busy street. The building has four floors and about 100 apartments. Each floor has a hallway enclosed with glass that follows the entire length of the building and directly faces the street. Juhani’s memories about visiting the building were unclear. He suggested I talk with someone who actually lives in the building. The main comment he had about it was the temperature in the glass hallway had been either too hot or too cold on occasions when he had visited the building in the past.

This walking tour serves as an example of how even in a neighborhood that is very familiar to a person, or perhaps especially in neighborhoods that are familiar, the person may have curiosities or questions about certain buildings and structures. For this reason, dialogue within communities can be valuable. One aspect of a dynamic community is the proximity of people with different lifestyles and histories. It can be enriching for everyone when neighborhoods have spaces that enable spontaneous interactions between people who don’t normally share most of their everyday activities.

5.9 Results of the Walking Tours

The success of urban design projects eventually depends on relationships with individuals within the community. Regardless of the methods used
to establish these relationships, the process of promoting continued engagement is often time-consuming and unpredictable. For this reason, I have concentrated this chapter on a process of integrating data collection methods with human interactions. Within the small sample of interactions, various experiences emerged. These experiences reflect possible insights and challenges that one might encounter during an ongoing process of community engagement.

Recorded walking tours could potentially compliment insights collected via softGIS methods in several ways. First, they extend respondent feedback to include continuous narratives. Kahila & Kyttä (2010) have suggested the potential to correlate longer narratives with related quantitative softGIS data (p. 18). Second, alternative technologies such as GPS, which can be used on mobile platforms, would allow respondents to reflect on environments directly. Resulting quantitative data could be combined in analysis with point data collected via the online map-based softGIS interface. Triangulation of feedback collected through multiple technologies could reduce the illusion of precision presented by emphasis on computational analysis of responses collected via an individual method. Third, people who are willing and able to participate in walking tours may be helpful in supporting ongoing communication between stakeholders in their communities. The casual approach of recruiting participants could occur on a rolling basis throughout extended time periods. This would integrate variables such as seasonal influences and other periodic or spontaneous events into the response pool.

In at least one case, a more accurate indication of location was reported when using the web-based map since GPS did not function inside the selected building. In two cases, respondents purposefully changed their chosen location during the walking tour to a new location at least
100 meters from the point they had indicated on the web-based map. Although both the web-based map location choices and GPS recordings of chosen locations were intended to indicate a single positive or negative urban feature, the data recording method used effected what types of information respondents were able, willing, and inspired to provide.

Three of the five respondents expressed interest in environmental features (buildings or natural areas) that they did not directly interact with during their typical every-day lives. Three of the five respondents made positive comments on re-purposed historical buildings. Three of the selected negative locations reflected concerns about general maintenance of natural areas and public urban space. Two respondents selected relatively new buildings as negative locations. Only one respondent expressed ideas about the future of the area. Similarly, existing research has documented a low incidence of future-based comments in community feedback activities. For example, documentation of the Urban Tapestries project revealed that less than one third of collected responses reflected future visions (Silverstone & Sujon, 2005, p. 39, Table 2). Therefore, encouragement of future visioning may be worth special focus in community dialogue settings.

These walking tours are examples of qualitative data collection in urban space mediated with locative digital technology. The experiments reported show a possible way to integrate them, as modified Gåturs, with digital data collection. The resulting data could potentially be used for analysis and research or as raw materials during urban design activities. This chapter has presented both logistics of conducting the walking tours and the range of resulting data. Figure 12 summarizes observations based on the process of collecting qualitative data via the softGIS interface.
Figure 13 summarizes observations based on the process of collecting qualitative data via the walking tours.\footnote{Visual and audio documentation of the walking tours can be seen at: http://sarajacobsen.net/locative/}
### DIGITAL MAP INTERACTIONS

<table>
<thead>
<tr>
<th>Name</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>SONJA</td>
<td>Would have preferred more terrain details in natural areas</td>
</tr>
<tr>
<td>MAARI</td>
<td>Contributed feedback on navigation buttons and interactive components of user interface based on her own experience as a media designer</td>
</tr>
<tr>
<td>JULIE</td>
<td>Quickly located accurate points in specific buildings shown on map</td>
</tr>
<tr>
<td>MIKKA</td>
<td>Explored and searched systematically around map survey interface</td>
</tr>
<tr>
<td>JUHANI</td>
<td>Looking at the map inspired lots of memories and stories</td>
</tr>
</tbody>
</table>
SONJA

• **Positive Location:** hilltop sports area
• Distance between on-site GPS point and initial web-based map point: 50 m.

• **Negative Location:** flooded forest area
• Distance between on-site GPS point and initial web-based map point: 300 m.

• Interested in activities at a sports area she does not use herself but walks past frequently

MAARI

• **Positive Location:** Tervasaari island
• Distance between on-site GPS point and initial web-based map point: 100 m.

• GPS point chosen when a specific positive feature was identified while visiting the site

• **Negative Location:** pedestrian tunnel
• Distance between on-site GPS point and initial web-based map point: 50 m.
• Digital map point was more accurate because GPS did not work inside the building

• Environmental factors (coldness, snow, darkness) complicated the digital recording process
• Not possible to use GPS inside buildings
• Interested in an iconic historical building
• Discussed topic of olfactory features of a location as intangible cultural heritage
• Concerned about history and basic care of urban infrastructure
JULIE

- **Positive Location:** cafe
  - Distance between on-site GPS point and initial web-based map point: 0 m.

- **Negative Location:** indoor shopping center
  - Distance between on-site GPS point and initial web-based map point: 0 m.
  - Not possible to use GPS inside buildings

MIIKKA

- **Positive Location:** university art gallery
  - Distance between on-site GPS point and initial web-based map point: 50 m.

- **Negative Location:** seaside bay shore
  - Distance between on-site GPS point and initial web-based map point: 75 m.
  - Not possible to use GPS inside buildings
  - Presented an alternative critical perspective on a commonly praised area of the city

JUHANI

- **Positive Location:** cafe
  - Distance between on-site GPS point and initial web-based map point: 0 m.

- **Negative Location:** apartment building
  - Distance between on-site GPS point and initial web-based map point: 100 m.
  - Curious about a building he had visited before
6.1 A Case Study of Community Interactions

I designed the next exercise to focus on participant-generated documentation. I undertook this investigation as part of a one-week workshop concentrating on the suburban neighborhood of Kannelmäki in northern Helsinki. The workshop was coordinated by the Sustainable Design Research Group at Aalto University.\textsuperscript{10}

In 2009–2010, the softGIS team at YTK had created reports investigating potential for ecological and social sustainability based on softGIS data collected from Kannelmäki residents (in addition to residents of ten other neighborhoods).\textsuperscript{11} This information was conveniently available to me as a reference when I began examining current conditions in Kannelmäki.

\textsuperscript{10} Workshop participants included graduate students from Aalto University in Helsinki (Finland), Politecnico di Milano (Italy), and L’École de Design Nantes Atlantique (France). Our group spent the week exploring the neighborhood, meeting residents, and organizing collaborative activities. The last two days of the workshop focused on preparing proposals for encouraging (particularly inter-generational) community interactions. The proposals were then pooled together within a larger agenda of presenting Aalto University work in various European venues focusing on the topic of well-being. The aim is for feedback from the presentations in other venues (museums, schools, and urban spaces) to inform realization of the proposals for Kannelmäki in 2013.

\textsuperscript{11} http://ytk.aalto.fi/fi/tutkimus/hankkeet/urb_onni_results/
I conducted a small-scale design probe activity supported by the group workshop context. The design probe I developed was based on three data sources: the softGIS reports, workshop activities (dialogue and drawing on maps), and archived transcripts of 15 extensive interviews conducted by the workshop’s administrative assistant. Data from these sources suggested relevant themes to explore as well as general formal qualities of the design probe. The aim of using the design probe was to give participants a documentation method that would be easily accessible during the course of everyday activities and to promote spontaneous feedback on multi-sensory environments.

6.2 Data Visualization

The data I chose to focus on from the SoftGIS report illustrates positively and negatively perceived locations in Kannelmäki designated according to four factors: functionality (red), social aspects (green), external image (yellow), and general atmosphere (blue) (Fig. 14). I did not analyze or make assumptions about patterns in the data visualization. However, I did include a similar map in the design probe so that it would be possible to compare feedback I received with responses indicated in the data visualization.

6.3 Workshop Activities

Since none of the students in my group were familiar with Kannelmäki, we spent three days learning about the area. On the first day we listened to presentations by urban researchers about neighborhood statistics, previous community design activities in Kannelmäki, and examples of community
Figure 14
Positively (left) and negatively (right) perceived locations in Kannelmäki
(© 2011 YTK)
design projects within Europe. We discussed the project goal of promoting inter-generational dialogue in support of community well-being. We discussed facets of well-being such as physical health, social capital, emotions, self-esteem, optimism, purpose, trust, and belonging.

On the second day we visited two elderly homes. Although both homes had some features that promoted well-being of residents, the challenge of integrating residents with the everyday activities of people of different ages within the community of Kannelmäki was significant. In the past, one of the homes had an area for apartments where recently retired pensioners could live who did not need medical care. This added some diversity to the age range and social groups at the home. Currently, the home only serves people around an average age of 80 with a need for constant professional care. Furthermore, the schedule of most residents was fairly regimented and did not support spontaneous interactions or activities. One impressive feature at one of the homes is an annual exchange program with an elderly home in Japan.

Figure 15
Elderly service home visit
The elderly home visits highlighted a challenge of qualitative documentation. One of the homes had a problem with mold and mildew because it was situated in an old building that had been built over a swamp. A pervasive unpleasant smell made this problem clearly evident. However, photographs of the home documented cheerful decorations, carefully prepared breakfasts, interesting architectural features, and group conviviality. Not only did the pleasant environment illustrated by the photographs not fully represent the experience of being in the space, but could in fact be considered misleading since the photographs mainly depict comfortable qualities of the space (Fig. 15).

On the third day we hosted an open dialogue for people of all ages at the Kannelmäki community center building. Discussion focused on history of the area. Although we received insights from people of various ages, the activity was more of an exploratory dialogue than an example of the inter-generational dialogue we hoped to promote in the community. We also walked around areas that had been mentioned as significant and documented our own observations.

The next two days were spent conducting design activities with the community. These activities included annotating maps, drawing, and word association games (Fig. 16). Most activities took place at the community center, but we also took time to seek out people in other areas of Kannelmäki and to spend time in a variety of public spaces. A community garden, a terrace built over the river’s shore, walking paths, train and bus stops, parks, pubs, and shops were explored. One thing I noticed was the many ways spaces are divided by trees, screens, and fences (Fig. 17). I stopped to photograph some branches in front of an empty porch and after a few moments noticed there was an elderly woman tending the garden at the other end of the porch. We had a short conversation. It was
an example of how plants can create a semi-permeable buffer between public and private spaces. The woman almost blended in with the natural elements. The plants created a sense of privacy, but also a welcoming focus point that supported our meeting and conversation.

On the final two days of the workshop, we integrated feedback we had collected with the background material presented in the beginning of the week. We created a set of proposals including customized audio recording devices, artworks, and mobile installations inspired by themes that had emerged through our community interactions. Because this thesis is focused on the process of conducting different types of interactions rather than presenting a case study of applying interactions to a specific design problem, I will not describe the proposals in more detail. Furthermore, since the workshop was only the first week of an ongoing process of developing proposals, they currently exist only in the form of sketched ideas. The development of results such as these that emerge through co-design activities is a topic beyond the frame of work I am presenting here.
6.4 Interviews

Some of the most useful background information presented to us at the beginning of the workshop came from the transcripts of resident interviews conducted by the workshop assistant. Common themes in these transcripts included: necessity of transportation connections to places outside the area; appreciation for green areas, plants, and outdoor activities; public areas that allow for both community interaction and private space (“oma rauha”). Many respondents emphasized the delicate balance between urban conveniences and natural settings or between public and private spaces. References to natural features included vegetable gardens, decorating trees with lights, ski trails, and seeing greenery from windows. An ideal neighborhood was described as having easily accessible natural areas that make it “easier to live ‘side-by-side’ with others” and public areas that allow “space for your own thoughts…but not stagnation”.

12 Interviews conducted 19 November, 2011 by Malin Bäckman
(available upon request)
6.5 Design Probe

I constructed a probe that could be considered either an analogue feedback method or a paper prototype for a mobile digital probe. The probe consisted of kits described in detail in the following paragraphs. Either direction could serve to collect in-depth information guided by trends visualized on a digital map. Tuuli Mattelmäki (2006) has found that “development of mobile probes has…taken a different route from that of empathy probes and has veered towards quantitative research” (p. 57). Mattelmäki suggests multidisciplinary interpretations and interviews as means of elaborating on the relatively standardized data collected through mobile probes.

I distributed the kits to three volunteers whom I met during the workshop and asked for their mobile numbers. The probe kit included a brochure introducing the project, a paper street map of Kannelmäki, and a set of five cardboard packets (Fig. 18). Each packet was similar in shape and size to a mobile phone. The front of the packet was covered with lined
writing space and also had a set of four icons suggesting multimedia interactions similar to what might exist on a mobile screen. These icons, the task instructions, and specific feedback requests were all designed to promote multisensory environmental observations.

Each of the five packets was numbered (1–5) and sealed. Participants were directed to open a packet after receiving a text message prompt I would send them. Inside each packet, the participant would find one feedback request. In this way, the participants were given the freedom to make choices about what to document and were not limited by the need to coordinate schedules with me. Both the walking tours and the design probe activity resulted in feedback from participants in a range of familiar everyday urban settings.

My intent in conducting the design probe activity was to include an additional interpretation of community engagement in my exploration of locative data collection methods. Through walking tours I documented urban spaces in spontaneous ways with the guidance of participants. The design probe gave participants an opportunity to make their own documentation of perceptions during the course of typical everyday life.
Both the walking tours and design probe activity are examples of methods that could support a unified aim of community participation and dialogue.

Particularly when the aim is to promote dialogue, data collected through probes need not necessarily be quantified, standardized, or pre-defined. It could be valuable simply to discover characteristics of the target audience, establish common ground, or negotiate organizational logistics.

Based on themes that emerged during workshop activities and drawn from available background materials, I composed five response requests. The requests included two open questions, one question focused on a social topic, one question focused on a specific environmental feature (plants), and one question focused on sensory feedback (smell):

1. Tell one nice thing about your current location.
2. Are you alone or with other people? What are you doing?
3. Are there plants in your current location?
   If yes, please tell about them.
4. Tell one unpleasant thing about your current location.
5. Describe the smell of your current location.

Figure 18
Design Probe Kit
The main task was to provide written feedback on the front of the packet. Optional tasks included providing collected objects, photographs, email feedback, and annotating the paper street map with location at the time of recording a response. Only one participant provided photographs. This person provided photographs for all five responses and also annotated her notes with hand-drawn illustrations. All three participants made at least one mark on the paper map. After collecting all participant responses, I created a composite image of these annotations layered over data collected through softGIS methods (Fig. 18). The map included in the probe kit did not show the softGIS data. All the probe kits were returned in different forms than they had been distributed. Two had been folded into a more compact, hand-held size. One had been repackaged into a larger envelope (Appendix B).

After collecting the packets from participants, I asked for feedback on the activity. The feedback was collected in a semi-structured conversational context rather than a systematic survey. I asked for feedback on the following general topics:

- How did the tasks go?
- Did you have concerns about privacy (for example, giving your phone number to a stranger or sharing personal information)?
- Were any of the tasks stressful or inconvenient?
- Were there any objects or media you would have liked to include but did not?
- Can you suggest changes to the design of the kit?
- How long of a time period would you be interested in participating in this type of activity?
All participants commented that the activity was fun and none expressed concerns about privacy or inconvenience. One participant commented that the activity made her feel “like a little child”. All participants would be willing to continue with the activity for at least 1–2 days per month. Two participants mentioned that the task inspired them to think about visiting or sharing information about places in their neighborhood with others. One participant mentioned that she would have liked to add photographs if it had been more convenient. A critical comment I received was that one participant wasn’t sure how to respond when she was at home. It seemed to her that the activity was designed to collect feedback on public spaces in the neighborhood and she was unsure what would be worth telling about her own home.

My own experience conducting the probe kit activity was that it was quite laborious to manage even this small-scale interaction. However, this was not surprising because similar observations had been expressed in project documentation I had referenced before conducting the activity (Silverstone & Sujon, 2005, p. 26; Gaver, 2001, p. 21; Mattelmäki, 2006, p. 56). Attention must be carefully distributed between each tool, participant, and stage of the process. My experiences confirmed that high-quality attention is only possible if each element is planned and simplified according to its essential purpose. If this reality is addressed, a well-planned probe kit can be an efficient means of collecting meaningful data.

6.6 Results of the Workshop

A benefit of participating in the community workshop was the experience of establishing communication channels among diverse stakeholders. Although sessions were brief, meeting people with different perspectives
helped to concentrate dialogue on mutually relevant topics (such as inter-generational communication and the natural environment) and to raise awareness of the complexity of each topic. It is rare for people to step out of their daily routines to participate in this type of activity. For some, the limits of what can be discussed or resolved within a workshop setting might be frustrating. The value of this type of workshop can be elevated through continued dialogue.

In the case of the Kannelmäki workshop, communication channels were established between students and faculty of three European universities, Helsinki-based urban researchers, media representatives, and Kannelmäki residents. None of these groups represent urban policy decision makers or urban designers. However, all participants potentially share an interest in communicating with urban planning professionals. The workshop setting presented an opportunity to contextualize topics of interest and to meet others with similar interests.

The quantitative visualization (Fig. 14) of responses from a web-based survey emphasizes concentrated areas of interest within the community of Kannelmäki. Most areas received a mixture of positive and negative responses, while a few areas received predominantly positive responses. Overall, the negative responses were more concentrated than the positive. One approach to interpreting the visualization might be to make a deeper investigation into the concentrations of negatively perceived areas. For example, there may be some dominant opinions and/or wishes related to these areas.

Rather than follow through on a specific interpretation, my approach was to perform a general test of a complimentary method that could potentially support various interpretations of web-based survey results. Through the design probe activity, I collected feedback
on the same urban area that received feedback in the web-based survey focused on Kannelmäki. I also established working relationships with three Kannelmäki residents. These local residents were enthusiastic about participating in a more extensive way than was possible during short workshop sessions. They are the type of people who could potentially serve as conduits of information throughout community design processes. Whereas quantitative map-based surveys may bring focus and insight on key topics, other methods may be more engaging during the ongoing design process.

Recruiting local residents to participate in more extensive investigations can serve a dual purpose of delivering insights and ensuring greater support for a project. Two of the design probe activity participants independently commented on areas that had received high concentrations of responses in the map-based survey (Fig. 19). This is an example of a situation where motivated local residents could potentially provide support to projects designed to address strong community sentiments. In this case, qualitative results support explanatory insights on a quantitative visualization.

In the interest of promoting participation among diverse community members, it may be beneficial to offer various options of participation. Contributing anonymous web-based feedback, participating in a workshop, and engaging in ongoing personal documentation are three methods of communication that may attract different people depending on characteristics such as technological affinity or personality. Furthermore, design tactics can be used to align methods so that the results of each contribute to common goals. For example, alternative forms of participation could be introduced on a web page or at a community meeting. Coordinating visual features of tools and information can motivate participation through clear communication of a project’s context.
When possible, it can be useful to bring together various stakeholders to discuss a topic of common interest or to interact as participants in a co-design setting. However, because opportunities to do this are limited, communication channels that allow various methods of participation to continue beyond a workshop are useful. During the week I spent in Kannelmäki, I was able to explore the potential of merging workshop activities with ongoing participant interaction.

Figure 19
Annotations made on a map of Kannelmäki by three respondents in May 2012—Minna (blue); Elisa (pink); Salla (green)—layered over softGIS data visualization (gray dots) of responses from Kannelmäki residents in 2009–2010 (see Fig. 14 for softGIS data details)
7 / Interface Proposal to Support Multiple Participation Methods

7.1 Basis for the Design Proposal

Building on observations made during the activities described in previous chapters, the following interface design proposal takes the form of a web-based collapsible media panel. It allows integration of in-depth qualitative research with softGIS methods. While some users may interact extensively with the website, others may use it more as an archive of materials related to activities that are not web-based. This unified platform supports correlation of informative web-based survey responses and quantitative data collection (such as is described in Chapter 4) with related ongoing communicative processes of engagement (such as those described in Chapters 5 and 6). The design proposal is intended as a conceptual starting point. Future iterations should support continual development of changing methods of engagement.
7.2 Benefits of the Proposed Interface

The main benefit of this design proposal is a “communicative layer” that represents ongoing engagement with a topic or project. The example interface integrates an interactive map with archives of qualitative data related to a common geographic area of focus. The interactive map could be used to collect survey responses and other quantifiable information. The archives of more extensive qualitative data relate to interactions that are not necessarily web-based.

7.3 Design Proposal

The presented interface design proposal concentrates on a collapsible panel, which compliments the softGIS interface. The panel can be minimized while providing feedback to a web-based survey and maximized when the viewer wants to relate complimentary data with a specified geographic area. In this section, I concentrate on describing features of the collapsible panel rather than the web-based map or survey. Two views are presented (Appendix D).

The first illustrated view is a Participation Library. Here, a viewer can become familiar with all participation opportunities of a selected project. Each project phase can be expanded to list the participation opportunities specifically related to that phase. Each phases also has its own timeline. Because phases may not follow a set chronological sequence, there may not be a detailed timeline for the whole project. Some phases may repeat or be ongoing.

The second illustrated view is a Project Media Collection. By selecting a specific project, a viewer can explore media associated with each phase of the project. In this view, participation opportunities are
listed within the phase when they are available. There is no single list of all participation opportunities for the project. This view is focused on browsing media rather than becoming familiar with details of a specific project.

7.4 How the Proposed Interface Relates to Presented Cases

The overall layout of the proposed interface remains quite similar to the softGIS interface described at the beginning of this thesis. Most of the new elements are concentrated within a collapsible panel that can be integrated with the existing interface. The essential idea is that web-based map interactions are always related to a set of complimentary interaction opportunities.

The walking tours produced materials that serve as examples of what might be collected by people contributing to micro-blogs or web-based archives. Walking tour documentation could be correlated with data gathering interactions and visualizations on the website. It could also raise visibility of participation in a community and motivate people to become engaged with a project.

The design probe serves as an example of a data collection method that could either by coordinated with data collected through the softGIS interface or exist as a complimentary activity that is simply announced or archived on the softGIS interface. Probes could target a specific user group not addressed through web-based interactions. They could also be part of supplementary activities for people who do participate in web-based interactions. For example, if feedback is needed on different areas at different times, requests could be directed to specific participants based on real-time locative data.
The data collection methods and interface proposal described in this thesis have been developed essentially as a creative exploration. They support a general goal of integrating multi-stakeholder multi-sensory feedback and dialogue within urban environments.
8 / Conclusions

8.1 Reflection

Place-based interactions, information flow, and community engagement are elements that define an ecology of mobility within urban contexts. Motivation and possibilities for mobility are mediated by constantly changing contextual factors. Encouraging and tracking place-based interactions through the use of locative media can simultaneously generate data that reflects environmental conditions and raise interest in topics relevant to urban planning.
The ICTs and interactions described in this thesis have been designed to support both quantitative and qualitative data collection. The data collection process simultaneously results in material suitable for analysis and in establishing communication channels between stakeholders. While urban planning projects may be situated in fixed geographic locations, they must be designed in service of unpredictable, mobile, human factors. This thesis has aimed to describe how such factors can be considered from the earliest stages of planning as well as continuously within communities where urban projects are not currently in development.

One of the intents of this thesis was to explore potential to use the softGIS system as part of ongoing dialogues between urban planners and the communities they serve. The current use of softGIS as an information collection tool has produced interesting data sets and related analyses. The relevance of these analyses could be verified through a process of returning results to people within the communities of focus. While the softGIS interface has been developed to collect information from and to be accessible to a broad audience, the results are still focused on visualizations suitable mainly for use within professional contexts. Through establishment of ongoing dialogue between planners and communities, both information collection and results communication could become more transparent and useful to all stakeholders.

The work that I have done within the context of this thesis has not addressed processes of community dialogue. The dynamics of dialogue would require further exploration through ongoing community interactions. My work has, however, been directed toward the aim of supporting dialogue. Through walking tours, a design probe, and workshop activities, I became familiar with a diverse range of urban planning stakeholders. Many of these people were only able or willing to contribute to urban planning tasks for
brief periods of time, but all expressed some level of enthusiasm for being
given an opportunity to be involved and most were interested to know
more about the projects beyond their own contributions. In this sense,
my work has succeeded in documenting logistics of coordinating multi-
stakeholder communication.

One topic that has been touched on throughout this thesis, but not
yet deeply explored is context-aware media. The importance of context
has been emphasized in all activities documented in this thesis, however
greater focus on emerging technologies could support more detailed
understanding of the potential to integrate contextual data with qualitative
subjective feedback. For this reason, I have concluded the thesis with an
interface concept that integrates my work with the existing softGIS system
but also allows for integration of other data collection methods developed
over time. Future development of my proposal to integrate multiple data
collection activities and multiple communication channels does not rely on
developing any of the specific activities I have explored, but rather
on considering relationships between all activities. Although this thesis
is not primarily an interface design project, the web-based interface serves
as a platform for illustrating the relationship between various
complimentary interactions.
8.2 Future Work

Regarding technological development, the proposed interface could benefit from integration with micro-blogging platforms, expanded possibilities for online commenting, e-publishing opportunities for respondents, and complimentary mobile development. Including sequential points recorded on-site along a route could support richer analysis of locative data.

My proposal for a unified web-based interface that can serve both as a data-collection tool and an archive of related data collected through other methods is intended as a means of facilitating community dialogue. However, it would not be necessary to develop the proposed interface in order to continue working towards this aim. Depending on available funding and specific community interests, there are many interactions that could support collection, distribution, and use of locative data.
References


WEBSITES:

http://arabianranta.fi/info/helsinki_living_lab/

http://artova.fi/

http://helka.net/

http://katumuisti.fi/

http://kerrokartalla.hel.fi/

http://livinglabs.fi/

http://mlab.taik.fi/urbanmediator/

http://pehmo.tkk.fi/home/

https://softgis.org.aalto.fi/childrens/questions/begin

http://senseable.mit.edu/

http://urbantapestries.net/

http://pps.org/
Appendix A: Community Knowledge Sharing Tools
COMMUNITY KNOWLEDGE SHARING TOOLS
( accessed 8 September, 2012 )

ARCHIVES OF KNOWLEDGE AND EVENTS

BOSKOI
boskoi.org

The Boskoi Ushaidi-based Android mobile app is a guide to the edible landscape. It was developed by foragers at Urban Edibles in Amsterdam. The web-based archive supports discussion and data filtering based on date or type of edible.

ESCOITAR
escoitar.org

This interdisciplinary Spanish group is a partner of the European Acoustic Heritage project and particularly focuses on documentation and study of the Galician soundscape. The group shares collected information via a web-based archive which uses Google Maps.

EUROPEAN ACOUSTIC HERITAGE
map.europeanacousticheritage.eu

This project aspires towards “unity in diversity” through creation of a collaborative archive of audio documentation of cultural heritage. The archive can be browsed and contributed to via the project website. Academic institutions in Austria, Finland, Spain, and Switzerland are among the project partners.

noTours
notours.org/soundwalks

The noTours Android app detects the user’s location via GPS and makes available audio files that have been assigned to that location. Sounds can be assigned to locations via a web-based editor. You can also download mp3 files of pre-recorded “soundwalks” from the website. NoTours is produced by Escoitar.
PIRKANMAAN ÄÄNIMAISEMAT
pirkanmaanaanimaisemat-kartta.blogspot.com

This project resulted in a web-based archive documenting the soundscape of Pirkanmaa, Finland. It was produced in 2009 by The Finnish Society of Acoustic Ecology in collaboration with two universities in Tampere, Finland. Users can browse audio and video recordings as well as proposed recording sites via a Google Map. The website also supports feed subscription and commenting.

RESTAURANT DAY
restaurantday.org

This seasonal one-day event is supported by a web-based forum which facilitates pre-event planning as well as a mobile app which facilitates navigation around the host city during the event. The website uses Google Maps to identify restaurant locations. The locations can be filtered based on type of space or type of food served.

SOUNDSCAPES AND CULTURAL SUSTAINABILITY
socsproject.blogspot.com/p/about.html

This project is based at the University of Eastern Finland and researches soundscapes throughout Europe. Participatory ethnographic methods are used to raise awareness of soundscapes as cultural heritage and to promote the value of soundscape creation and maintenance.

WEB MAP MEDIA
Halttunen, Juustila, & Nuojua, 2010, p. 83

This web-based application is built on Google Maps and supports anonymous map-based discussion between citizens and planners. Points of interest visualized on a map contain hyperlinks to discussion about indicated locations. The project was developed at the University of Oulu in Finland.
This art project is curated by Matthew Knight. Over the course of one year (2012), 100 people are selected from an open call to receive a disposable camera and document one week of their life. One person of each age between 1 and 100 is chosen. Although locative data is not connected to individual images, the location of each participant is shown on a map.

LOCATING HELSINKI
locatinghelsinki.wordpress.com

This Helsinki-based blog was initiated by Wojtek Mejor and has supported collaborative urban documentation projects at Helsinki Summer School and Helsinki University of Technology. The blog contains a link to a Google Map where locations mentioned in the blog are marked.

SESLLI GÜNLÜK
sesligunluk.blogspot.com

This ongoing blog focuses on the city of Istanbul, Turkey. Each post contains a journal entry, photograph, and audio file. In addition to a chronological list of posts, each recorded location is marked on a Google Map. The blog is authored by two self-described “researchers of urban soundscapes”.
PORTABLE DIGITAL DOCUMENTATION DEVICES

BIO MAPPING
biomapping.net

The bio mapping method uses a hand-held device to simultaneously record locative information and associated Galvanic Skin Response data of a participant. The results are visualized on maps to reflect the variable physical responses the participant had in different geographic locations. The method has been used in workshops to create collective data visualizations. Both the device and workshops were developed by Christian Nold. Nold is particularly interested in the politics and ethics of biometric technology. The visualizations are used as catalysts of dialogue which Nold describes as “concious reflection on...‘pseudo’ scientific data”.

COPENHAGEN WHEEL
senseable.mit.edu/copenhagenwheel/urbanData.html

The Copenhagen Wheel is a bicycle wheel fitted with real-time environemental sensors that collect data such as noise, temperature, and pollution levels. The data is available only to the user, however the user can choose to anonymously share the data with city government.

MOBILE PROBES
dl.acm.org/citation.cfm?id=1028014.1028020

This paper was presented at the Nordic Conference on Human-computer Interaction in 2004. It describes use of mobile phones with GPRS connections and digital cameras that support self-documentation in mobile contexts.
OBJECTS USED TO GENERATE DIALOGUE

CULTURAL PROBES
hookerandkitchen.com/presence

Probe packets were designed to support the Presence project by allowing researchers to collect cultural data from three different European sites. The packets contained materials such as post cards, stickers, and cameras.

STORY CUBES
proboscis.org.uk/projects/ongoing/storycubes

Story cubes are folded paper cubes which can be pre-printed or annotated during events such as workshops. The simple, playful, familiar form supports spontaneous dialogue and three-dimensional thinking.

KATUMUISTI
katumuisti.net

This project was installed in the summer of 2000 in Helsinki, Finland. Signs posted around the city showed various triptychs of images and invited viewers to call a phone number to hear a locative story associated with the images and the geographic areas where signs were posted. The archive of images, audio recordings, and a map are available on the project website.

[ murmur ]
murmurtoronto.ca

The [ murmur ] website is an archive of locative urban personal oral histories. Signs posted around a city invite people to call a phone number and listen to a story related to the area where the sign is posted. The project began in Toronto, Canada and has since been realized in cities throughout Canada, Ireland, UK, Australia, Brazil, and USA. Each city’s page on the website has a unique illustrative map design which reflects the idiosyncratic (rather than strictly systematic) documentary approach.
FANTASY DESIGN IN COMMUNITY
fantasydesign.org/fd/gallery

This project is coordinated by Design Museum Helsinki to promote design education for children. For example, one project began with a walk around a school in Lahti. After the walk, children reviewed aerial street maps on the city website and then drew their own maps based on the walking experience. Institutions associated with the project are located in Belgium, Denmark, and Spain. International and multi-lingual collaboration are encouraged.

WIKI PLANNING
worldarchitecturenews.com/index.php?fuseaction=wanappln.commentview&comment_id=105

This method was developed by Peter Tattersall in order to promote democratic urban planning processes. Participants in community workshops use wooden blocks to collaboratively “edit” the plan of an urban area. Three-dimensional objects are used in a process modeled after the Wikipedia concept of collaborative iterative content development. While the blocks have the advantage of being a simple, approachable design tool, digital virtual modeling methods have also been developed.
Appendix B: Walking Tour Documentation
WALKING TOUR 1
Palvelupiste
Serviceställen / Service point
WALKING TOUR 3
WALKING TOUR 4
Millä lailla täällä tuntuu mukavalta?

- Hyvä muistoja
- Kaunilta
- Hyvä ilma hengittää
- Turvalliselta
- Hiljaiselta ja rauhalliselta
- Hauskalta tai jännittävältä
- Rentouttavalta
- Onnelliselta
- Hyvältä
- Silisteltä tai puhtaalta
Millä lailla täällä tuntuu ikävältä?

- Surulliselta
- Huonolta
- Huono ilma hengittää
- Vaaralliselta
- Rumalta
- Tylsältä
- Meluisalta tai rauhattomalta
- Likaiselta tai roskaiselta
- Pahoja muistoja
WALKING TOUR 5
Millä lailla täällä on hyvä tehdä asioita?
Millä lailla tällä on huono tehdä asioita?

- Paikka on huonossa kunnossa
- Minulla ei ole varaa tulla tänne
- Minun on pakko tulla tänne
- **Paikassa on liilan kuuma tai kylmä**
- Vanhempani elvät pidä slitä että tulen tänne
- Paikka on kilpä kun haluaisin mennä sinne
- Jonkun täytyy tuoda minut tänne
- Tällä ei ole mitään tekemistä
- Tänne on vaikea päästä
Appendix C: Probe Responses
MÄKI
1/ Tell one nice thing about your current location.

**MINNA**

Kannelmäki - 1

A little park with little, very nice sculptures in it.

**ELISA**

Kannelmäki - 1

The new big trees taking beautiful new "green" my kitchen window 😊

**SALLA**

Kannelmäki - 1

My own green balcony... nice.

Kannelmäki - 1

NICE SPRING
2/ Are you alone or with other people? What are you doing?

06 MAY 2012 / 17:00
SALLA

HOME ALONE

07 MAY 2012 / 08:17
ELISA

Not alone. I’m with someone I love very much. He is helping me with my web-pages.

Both: > I’m at PRISMA Kannelmäki. Actually it was nice that there wasn’t a crowd yet. I was after some plants. Buying now.
3/ Are there plants in your current location? If yes, please tell about them.

MINNA
06 MAY 2012 / 16:10

ELISA
07 MAY 2012 / 10:43

SALLA
07 MAY 2012 / 13:37
4/ Tell one unpleasant thing about your current location.

MINNA
06 MAY 2012 / 12:36

Why is it so cold? I'm on our balcony.

ELISA
07 MAY 2012 / 18:14

Waiting here for my wife. It's May and I'm freezing.

SALLA
07 MAY 2012 / 16:42

I'm in a bus and it's raining. What a coincidence!
5/ Describe the smell of your current location.

MINNA

07 MAY 2012 / 19:12

I'm at home and cooking... The flat is small and every area outside a smell of earth and grass.

ELISA

07 MAY 2012 / 19:37

Trees, leaves, ground, "green smell" walking out with my dog...

SALLA

07 MAY 2012 / 19:20

I'm at home and doing lovely things and enjoying everything.
Appendix D: Interface Proposal
PARTICIPATION LIBRARY

A

A list of all participation opportunities for a project correlates with the scrolling items to the right. Hover state on either one simultaneously activates hover state on both. Viewer sees more information on click.

B

A drop-down list of all projects within a specified region is available. Each project has a unique set of participation opportunities.

C

Project phases which include participation opportunities are indicated with a plus symbol. Hover state of participatory phases reveals timeline for that phase and an invitation to get involved.
PARTICIPATION OPPORTUNITIES
- WALKING TOURS
- MOBILE SURVEYS
- WORKSHOPS
- IDEA COMPETITIONS
- ONLINE SURVEYS

WALKING TOURS
Walking tours are conducted on a rolling basis throughout the year in this region. If you would be interested in talking with one of our ex...

WORKSHOPS
Whether or not you own a mobile device that is compatible with the current mobile survey software you are welcome to participate...

WALKING TOURS
This phase is open for participation
YES, TELL ME MORE!

WORKSHOPS
Workshops are an opportunity to participate in a collective activity with others in the community. Workshops are conducted approximately...
Download options could include, for example, KML, GeoRSS, GeoJSON, Wikitude, e-publications, or micro-blog feeds.

In this project phase there are 27 walking tour stories that can be scrolled through or viewed in a list view.

“Liked”, “disliked”, and “other” points are color-coded and can also be filtered by selecting a check box.

The viewer can choose to minimize the panel while providing feedback to a web-based survey or interacting with the map.

Phases that have already begun are indicated with a solid color. Participatory phases are indicated with a plus symbol. Informative phases which do not offer participation opportunities do not contain the plus symbol.

An individual entry can be maximized. In the maximized view, a larger image, more text, and commenting possibilities are visible.

This project phase has three different types of participation opportunities.

Phases that have not yet begun are indicated with solid gray.

Signing into a personal account gives the viewer customized options such as email notifications and participation history.