

Talking it Further: From Feelings and Memories to Civic Discussions In and About Places

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ABSTRACT

Civic engagement systems to date frequently focus on purely rational aspects of deliberation void of emotions. In order to empower youth in a largely immigrant and lower-income neighborhood, we designed a location-based storytelling and story experiencing system for web-enabled mobile phones. The system is based on a novel concept of pervasive play where stories emerge and develop on several dimensions – most notably for our design a geographical one. This system functions as a research instrument in this paper. Through a qualitative analysis of the comments made through the system, we find (1) memories, feelings, and attitudes to be prime means of expression for youth, (2) the expression of such personal emotions leading to civic discussions, and (3) such discussions expanding over geographic areas in the neighborhood. Consequently, we argue for an approach to locative civic engagement systems that takes a vantage point in youth's emotions rather than a very rational and dry approach to deliberation.

Author Keywords

Civic engagement, youth, mobile phones, collaborative and locative storytelling, pervasive play, emotions.

ACM Classification Keywords

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

INTRODUCTION

“While walking past the schoolyard I remembered how we used to play here when I was young. It makes me sad to see how gray and boring it seems today. I decided to share my thoughts and started up I'm Your Body on my phone. I took some time to formulate my comment and wrote it into the system.

Just a couple of days later I came by again, remembered my old comment, and decided to check it. There was a new reply, and from the map it seemed to be from another school in the neighboring suburb. The feelings were similar:

‘We also have a kind of boring schoolyard. But we have a

nice tree in the middle of it, where I used to climb when I was younger.’

I answered the comment. ‘Maybe we need a tree as well, or some other kind of nature thing. It would make the place so much nicer for the kids playing here now.’ Maybe my comment will lead to change in the future, who knows.”

In this fictitious scenario the location-aware mobile phone application *I'm Your Body* (IYB) is used to share thoughts and feelings in and about a place. In the IYB project, we explore the use of collaborative storytelling and story experiencing as a political and artistic instrument. Our aim is to empower the inhabitants, especially youth, of a largely immigrant and lower-income area in Stockholm, Sweden by increasing their social capital [21]. As part of a larger participatory arts project, the mobile application lets participants collect their stories, present them to others, and experience the stories of others. We report on findings from the IYB system for the first time in this paper.

The goal of IYB is to design a leisure-oriented experience tied to a specific place and related to its cultural and political meaning. Thus, one way to describe IYB is as a location-based cultural experience. As Benford et al. [6] in their work on cultural applications, games, and performance, we use the singular word ‘experience’ to refer to such staged installations that encourage participants to engage.

Although the implemented system is generic, it was specifically designed to be used in a particular area. This area, Järva (a part of Stockholm), is politically challenging. Large cultural divides and different agendas among inhabitants, commercial forces, and politicians create tensions. Thus, it is crucial that the experience creates close ties to the physical area in which it is staged.

We broadly subscribe to the traditions of action research, participatory design, and in the wild studies in our research and design process. As IYB is implemented, tested, and used on location, in real use contexts, and with real users, the reality of the situation means we have to take an active part in the community to be able to design for it; i.e., there already *is* an existing community that we add on to. Our partners in the project act according to their artistic and political backgrounds. And so do we as researchers and designers who want to be a part of that community change. In this active role, we consequently take a participatory action research approach in the steps of Lewin [1]. The

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NordiCHI '12, October 14-17, 2012, Copenhagen, Denmark.
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intervention is created in a cyclical process, a “spiral of self-reflection” [18] where we plan, act and observe, reflect, and then go back to re-plan – a method well understood in design research [28] and game design [23].

In this process we worked with several different people, among them a sculpture artist, a person from a local theatre group as the creative lead, and three youth employed by the municipality as ‘game testers’ and creative co-producers of both the system and the artist’s work. Our partners use the system to organically build a located cooperative artwork where temporary sculptures, performance art, and a theatre play come together striving to give a voice to a part of the public otherwise often unheard in politics. This context and process is important to the findings reported in the following.

In this paper, however, we look at the *everyday uses* of IYB by youth in the Järva area *outside* of these artistic practices. Through a qualitative analysis of the comments in the system’s database we find (1) memories, feelings, and attitudes to be prime means of expression for youth, (2) the expression of such personal emotions leading to civic discussions, and (3) such discussions expanding over geographic areas in the neighborhood. Consequently, we argue for an approach to locative civic engagement systems that takes a vantage point in youth’s emotions rather than a very rational and dry approach to deliberation.

In the remainder of this paper, we make use of the following structure: We first provide background and related work, and briefly describe the system as well as our method. The core findings are then presented in three themes and discussed concerning the aspects of geographic expansion, civic discussions, and narratives, storytelling, and playfulness respectively. We close with our main argument for emotions in civic engagement systems and its limitations in the conclusion.

BACKGROUND AND RELATED WORK

We provide background and related work in four areas: civic engagement with a focus on emotions, play as empowerment, collaborative and locative storytelling, and the pervasiveness of play and storytelling.

Civic Engagement through Play and Emotions

With IYB, we take an approach to civic engagement of youth that is based on play and emotions. In respect to civic discussions, two competing notions can be characterized. Where Habermas emphasizes the rigorous rational analysis of an issue resulting in a cold exchange between individuals [16], Barber stresses the equal importance of mutual understanding of people through open-ended talk and conversation [4]. Barber’s notion of talk refers to a “complex mix of imagining, wondering aloud, listening, and understanding” ([13], p. 19). This is the notion of talk we endorse with IYB.

Fundamentally, de Sousa has argued that emotions underlie our rational processes in that they can guide us in our

opinions and judgments [24]. He claims emotions foster our values without which rationality is void. Emotions are a basic feature of our cognition. Not only do emotions express themselves in immediate feelings, they are also an essential aspect of our memories and attitudes. Memories, i.e. recollections of the past, come with an emotional tone. Attitudes, however rationally argued they might appear, are often entrenched in emotive intuition and can trigger deeper emotions [24].

Furthermore, there is an emergent debate on the role of emotion and affect in political life. Boler [10], exemplified in the domain of education, suggests that emotions are also a site of political resistance, e.g. to dominant cultural norms, and can mobilize social movements of liberation. Emotions give us information about what we care about and why, informing both our cognitive and moral perceptions [10]. She argues that emotions need to be brought out of the strictly private and into the public sphere. Thrift [26] seeks to shift attention to affect in the politics of cities. He calls the neglect of affect in current urban literature ‘criminal’ with respect to the reality of cities and works towards a spatial politics of affect. Lastly, Anderson [2] talks about the affectual potentialities of hope towards a theory of affect in social and cultural geography.

Informed by these perspectives on affect and emotion and based on Barber’s view of civic conversations gives way to put close focus on personal experiences of people in civic engagement processes. In IYB we seek to enable youth to express these experiences through feelings and memories supported by playful and locative storytelling.

In the field of HCI, Gaver et al. create cultural probes that they put out into the everyday life of participants [14]. The probes are artifacts that in different ways ask participants about their life, but they do it in a vague and uncontrolled way that leads participants to interpret the question and give a creative answer. As an example, they gave disposable cameras to participants with certain open-ended and absurd requests for images. Interpreting the *vague* answers they got in return lead to insights into new areas of the participant’s life they could not have inquired into themselves since they were not aware of them. Similarly, IYB produces stories and hard to interpret data because of the degrees of freedom and nebulous or even non-existing questions from the researchers. The meanings, and the answers, instead are created by the user of the open system.

As a counterexample depicting a general trend in civic technology research in HCI, Bohøj et al. [9] devise a mobile location-based citizen deliberation tool for in-situ and on-location discussions pertaining to land use planning in a sparsely populated area in Denmark. However, they take the word deliberation serious and build their system around arguments and opinions with the intention that citizens later collaborate (via a complementary web application) in order to formulate better informed and substantiated complaints or proposals to the municipality that take a vantage point in

local understandings of the area. While Bohøj et al. focus on personal and immediate reflections on places with their mobile application, they eventually subscribe to the camp of more rational deliberation in the Habermasian sense.

Play as Empowerment

In the design of IYB we discuss how to engage, inspire, and empower participants to take control over their own stories, and their own environment. Most cultural experiences are created around designed content such as tourist guides [3] and museum tours [19], but others have also been designed for purely artistic purposes [5]. The goals of IYB are political as well as artistic: the goal is not only to create an experience, but also to give participants a voice. IYB is, among other things, inspired by Blast Theory's art project *Rider Spoke* [8, 22]. Just as *Rider Spoke*, IYB gathers stories from participants and presents them at the location where they were created. A major difference is, however, that *Rider Spoke* still tightly controls which stories the system will collect. IYB aims to let participants take control also over how stories are shaped over time. IYB is about letting participants collect their stories, present them to others, and to behold the stories of others. It is about people's stories, but also about their connection and influence on the physical space where they take place.

Collaborative, Playful, and Locative Storytelling

Previous research has shown that people are able to tie their own personal experiences to locations [12]. We know that we are willing to share not only our positions with friends (e.g. Foursquare¹), but also our personal reflections and experiences of places. Bentley et al. describe a system called *StoryPlace.me*, a public location-based video service. The system allows users to place video stories at spots on a map for others to serendipitously discover throughout the city as they are living their daily lives [7]. Based on conveying stories about a family's history at places around the city, they talk about them as 'place-based reminiscences' [7]. Potentially, such place-based accounts could form a basis for *collaborative* storytelling, connecting routes through the landscape to experiences that are both created and experienced by the participants.

It is not hard to find examples of both locative and playful storytelling. Many children's games and some commercial games create play out of storytelling. For example, the storytelling card game *Once Upon A Time* [27] integrates collaborative storytelling into a game. In the context of locative storytelling, our main inspiration comes from Debord's idea of the *dérive* [11]. Despite its slightly radical backdrop originating from the Situationists movement, Debord's playful and spontaneous traversal of space is an act of pervasive play, and has as its effect that this traversal changes the meaning of a place, from mundane to mystical. Debord documents these experiences as psychogeographical maps; subjective maps of the city where the personal experience

of the city and the connection between city and identity is represented. By combining the idea of psychogeographical maps and the *dérive* with playful and collaborative storytelling, these personal experiences can grow into collective experiences.

Pervasive Play and Pervasive Storytelling

Staged experiences put high demands on participant engagement. This is even truer when participants are expected to create and share their own stories within the experience. Conceivably, participants could be motivated by a desire to tell stories, read stories, acquire a voice, or even get paid. In this project, we made it our goal to create a *playful collaborative story listening / storytelling experience* that would be fun enough without external motivations and rewards. From Huizinga [17], we can derive some core aspects of play that potentially can bring this about: play is fundamentally voluntary and needless, you cannot be forced to play; play takes place outside of, and offers an escape from the ordinary and mundane; play is also distinct from the ordinary, it is somehow marked off either physically or mentally, either you play or you don't play.

Unlike Huizinga, in pervasive games [20], the playful experiences are situated in everyday contexts, they can be continuously ongoing, and they take place in the 'real world' rather than on a screen or a designated playground. Seen from this perspective, IYB is intended to be a *pervasive* play experience. When play is framed this way, the experience is heightened in two ways: the real world setting of the game makes the experience more 'real' and more meaningful, at the same time as ordinary life is rendered more playful. The pervasiveness of IYB is crucial as it is staged in the politically challenging area of Järva and thus needs to create close ties to the physical area.

SYSTEM

Technically, the IYB system is a mobile web application connected to a database-driven web server (see Figure 1 for screenshots). It is written in PHP and uses the CodeIgniter² web application framework. Consequently, the system can be accessed via the browser from any web-enabled mobile phone. It furthermore uses the location feature of the mobile phone offered through the browser (i.e. GPS, Wifi, or cell tower positioning depending on availability) to geo-tag each individual comment with the user's current location. Users can record stories through IYB as small fragments in text format. Everyone can participate at eye level; there is no strict distinction between producers and consumers.

The implementation of IYB is rather generic. The system is not restricted to be used in any particular area, and neither is it restricted to experiencing stories in a particular order, at a particular place, or on a particular topic. Instead, every entry is tagged with information about a place, a time of entry, a person, and a story context. These tags can be used

¹ See <http://foursquare.com/>

² See <http://codeigniter.com/>

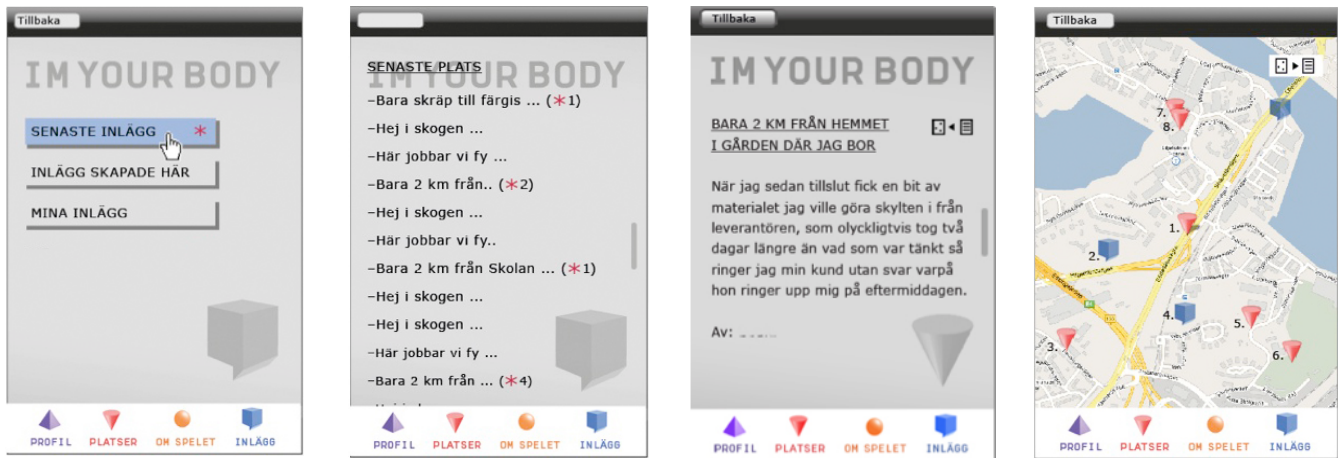


Figure 1. The main screens in the application: menu for choice of view (“Latest Comments”, “Comments Created Here”, “My Comments”), list of comments, comment details, and map-view accessible from a comment or the list of comments.

to structure story material according to place, time, or the person creating it. Entries can be combined to create stories about comments (the responses to entries) or about movement, so that moving from one place to another creates a story. They can be browsed by time, place, or user in a map or list view. Entries that form stories are visually connected on the map and listed in the entries’ detail view. Hence, IYB offers participants multiple ways to create stories, i.e., by choosing their own way of experiencing the present content, as well as entering stories of their own.

METHOD

The IYB system functions as the research instrument with which we study the use of emotions in mobile civic engagement systems. During its uptime, IYB collected 390 comments in 179 threads and was used by 78 users in total. It was mainly used during 4 months at the end of 2010 and has had a few sporadic posts ever since. The amount of use differed between users. Few used it throughout the whole period. We disregard 136 comments in 38 threads in our analysis that came about during two rather scaffolded (and artistic) activities: the exploration of and preparation for a play of the local theatre group, and the sculpture artist’s efforts to get in dialogue with and make youth reflect on their experiences of ‘their’ everyday places.

What remains are 254 pertinent comments in 141 pertinent threads from everyday usage of IYB. We know of some of the users and use situations of this everyday usage, but not all. The system came to be used in several different situations, among them, by three high school youth (16-18 years old, living in the area) employed during summer as test subjects for development of the prototype; during arts class in junior high (13-15 years old) and high schools in the area where students went out for a walk in order to ‘record’ places; in very casual and personal communication among family members or with close friends (mostly residents of the area and in the same age groups, recruited through the previous activities); and by the occasional user that through one way or the other became aware of IYB. These situa-

tions were not at all separated and participants in one group of friends or classmates answered to comments from another. However, we observed a general tendency that users are talking with and responding to people they know. These are the uses of IYB that we are analyzing in this paper.

We conducted a bottom-up, open coding qualitative analysis of these 141 threads and their comments in the system’s database received during its runtime. We went through the material several times during this process [25]. From the resulting codes we identified and developed themes and patterns reported on in the following section. Example comments and threads used in this paper were selected to best represent and convey these themes to the reader.

FINDINGS

We are structuring our findings in three themes that describe a progression from emotional to civic and locative aspects of IYB use. The observation that users largely use the system to express memories, feelings, and attitudes builds the fundamental basis. From there, we observe that, with their comments, users abstract on an inter-personal and a geographical dimension: (1) a progression from rather individualistic and personal emotions to concrete and collective civic discussions, and (2) threads progressing from notions about one place to similar notions about other places – i.e. a geographical expansion of threads.

Memories, Feelings, and Attitudes

Civic engagement systems to date typically provoke the more Habermasian notion of rational deliberation attracting arguments and opinions rather than encouraging expressions of memories, feelings, and attitudes (e.g. [9]). In contrast, our data shows that meaningful and very personal conversations about everyday places emerge on IYB. About one fourth of the comment threads in our data directly talk about memories and/or feelings concerning specific places or neighborhoods. The majority of these also have replies. We are surprised by the breadth and depth of people expressing emotions through IYB. Therefore, we have found it useful to distinguish between feelings, memories, and

attitudes. In a common sense definition of the words, feelings *are* emotions. The latter two, however, are *also* clearly laden with emotion and trigger emotion, but also involve more than ‘mere’ emotions. Memories and attitudes clearly do possess informative and argumentative character as well. Their potential for civic processes, we argue, lies in the fact that they interweave emotion, factual information, and arguments. This is particularly apparent in the study of memories.

Users reflecting on things lost and forgotten that comes back to their minds when they visit everyday places is a strong theme in our data. Participants remember and reminisce how things used to be, e.g., during their childhood. It is relevant to highlight, however, how memories are from then, but feelings are from now. Places evoke childhood memories and this creates feelings today. These feelings are triggered not only by merely visiting the place, but are also motivated by and to be expressed through IYB. The users in Listing 1 would not have gotten to reflect on and express that feeling without the IYB system.

- ((at his old school in the suburb))
 “It was so much fun to shoot hoops here when I was younger. The whole schoolyard reminds me of my childhood. It feels wonderful, yet strange to be here...” [male]
- ((at a public park downtown))
 “I remember I always used to sit here and eat ice cream with my family, now I see other families do the same. Sometimes you wish you would never grow up.” [female]

Listing 1. Two examples of memories at everyday places.

These memories and feelings also develop into conversations. In Listing 2, we see a user talking about her childhood memories and feelings. She directly encourages people to visit the specific place. As a reply, a user picks up the specific formulation of the original comment to corroborate and add to the feeling expressed by the original poster. He, however, refers to a place of *his* childhood and highlights with the last sentence *why* this place is important and meaningful to him. Conversations such as this one indicate an exchange of memories and feelings between users.

- “Memories come to life when I look at the green grass that I when I was six used to visit. Today the place does not look like eleven years ago, which I don’t find odd as society develops and progresses. Visit the point and you should probably understand.” [female]
 - o “Memories come to life also on this point because I used to play here when I was little. I stand outside my cousins house.” [male]

Listing 2. An exchange of memories about two different places.

Apart from feelings triggered by memories, users are also expressing feelings for their own sake. In our data, we find them on different levels: from general everyday feelings, e.g., about the bad weather, to deeper concerns about the bad environmental state of the area, or the lack of cultural diversity in the neighborhood. In the thread in Listing 3, we become witness to how a general feeling and complaint from the original poster sparks her and those replying to express their diverging environmental attitudes. These attitudes only become apparent in the articulation through IYB.

- “I dislike gray days. Especially gritty gray days. I hate that it's so messy and that the ground is filled with cigarette butts. Is there no one who cares about nature?” [female]
 - o “I do not like gray days either, but you know this is Husby, nobody cares about the environment, not even I do it, but what is so tiresome is when my mom nags me when I throw things on the ground.” [female]
 - o “I really care about nature! It is home!” [female]

Listing 3. Everyday feelings, environmental concerns, and attitudes.

Listing 4 similarly shows how attitudes surface from general feelings. The first post addresses an observation about cultural diversity that the same poster again expresses, being in another suburb, later on – seemingly being reminded of the earlier impression and having reflected on it. The first replier agrees and asks the same question the other way around for a popular downtown square. Again, we argue from this example that feelings and attitudes expressed on IYB can serve as a springboard for civic discussions.

- “Hehe ... It feels different to be in Rinkeby since you do not see many Swedish faces here :p” [male]
- ((same guy, a few days later, in another suburb))
 “Why do I not see many Swedes here?” [male]
 - o “This, I also wonder sometimes, but then I wonder why I only see Swedes at Stureplan.” [female]
 - o “There are, but you got here at 10:00am and everyone is asleep now. Hehe from [users nickname]” [male]

Listing 4. Feelings and attitudes on cultural diversity.

In most of these comments (especially in Listing 1 and Listing 2), we observe how people ascribe very personal meaning to these places: important places of their childhood, places relating to their family, the neighborhood they live in. We see how these personal meanings are inscribed in the places and thus warrant a safe dealing with them. These meanings derive aspects for a more general

meaning of these places for society at large. Small narratives are the means through which users of IYB express themselves. Memories, feelings, and personal meanings are the content of what they express.

Talking it Further 1: From Emotions to Civic Discussions

Another persistent theme are collectively meaningful civic discussions that emerge from the rather individualistic memories, feelings, and attitudes described above. Instead of only expressing personal feelings and general attitudes, it is clear that users are exchanging their different opinions about specific things or places that are of broader interest. And, instead of remaining on a vague and general level, conversations are becoming very concrete: users are identifying concrete issues or make concrete suggestions about specific places or specific areas. Through identifying issues and making suggestions, conversations attain a formative character where users negotiate and discuss a preferred state through the system. The ‘exchange’ of feelings and memories leads to conversations about problems of the present and possible future courses of action.

Listing 5 shows a pertinent example of how feelings lead to practical civic discussions. It starts off with a user expressing his discontent with a landscape feature. A second user replies to this dissent with a similar notion (and feeling), but about another place. She is wondering who is in charge of such decisions, for which the original poster promptly provides a possible answer. The two users each identify a very concrete imperfect condition in two specific places that they think can easily be remedied. They are also inquiring for the people responsible for such decisions in the silent hope that they would read it and take action. They want to get heard.

- “Why doesn't anyone cut off the ugly clutter in the midst of the beautiful meadow? It covers even the view.” [male]
 - “An open meadow is usually most beautiful. I am myself standing on top of a hill, so amazingly beautiful, but the big tree destroys my view. Who takes care of those things?” [female]
 - “I think it's the municipality that decides such things. There are many disadvantages in that they always have to decide, but at the same time it can be positive.” [male, original poster]

Listing 5. Feelings leading to practical civic discussions.

The example in the thread in Listing 6 illustrates how people are directly comparing the features of one place (a public park downtown) with their own neighborhood. It illustrates how they transfer good qualities of one specific place to the problems of another. The admiration of a statue by the original poster in the public park leads to the complaint by a replier that there are unfortunately no such things in the area they live in. Rather, their neighborhood is characterized as an area of tristesse and commercialization,

in part, due to an enormous central shopping mall at the subway station.

- ((at a public park downtown))
“Looking up at Karl the XII and think of how it used to be, during this person's time. Cannot help thinking how I would look like as a statue.” [female]
 - ((in the suburb, behind the mall))
“Oh how fun. Unfortunately, there are no statues here.” [male]
 - ((in the suburb, residential area))
“I agree, there are no statues here either. Really sad that there are no statues and other fine things which cheer up the streets everywhere!” [female, original poster, resend with typos corrected]
 - ((in the suburb, behind the mall))
“No, I do not see any statues here just shopping installations” [male]

Listing 6. Civic discussions and geographic spreading. (The third comment has been resend by the user with typos corrected. The original mistyped comment has been omitted for readability.)

More than merely identifying a concrete problematic situation, we argue that users start to define, negotiate, and discuss a preferred state for specific places or their living environment as a whole. The thread in Listing 7 shows youth, rather creatively and freely, coming up with ideas and suggestions for action to address an annoyance in their environment that bothers them. This turns into a quick and successive ‘brainstorming session’ via IYB among three people gathering ideas for improvement of an identified imperfect state.

- “Some taxis are so ugly!” [male]
 - “I agree! Why yellow of all colors? Pink or blue would be cool!” [female]
 - “Or maybe gold???” [male, original poster]
 - “They need a little make-up maybe” [male]
 - “Great idea, we make them up together!” [female, also second poster]
 - “We can put some foundation on them :p” [male, original poster]

Listing 7. Youth ‘brainstorming’ ideas and suggestions to improve the current state of their living environment.

Another group, actually co-located in this thread in Listing 8, is expressing very concrete complaints and issues about a specific square in the suburb. They do not ‘like’ it at all. Again, they formulate and re-iterate a preferred state for

their living environment and discuss some very concrete suggestions to improve the appearance and use of this square towards their preferred state.

- "A very boring square. Looks very dead and gloomy. Could be livened up with more plants or stores. A fountain or sculpture would get the square to look nicer." [female]
- "To create a more welcoming square one should perhaps turn the benches towards one another rather than away from each other?" [male]
 - "Agree. One should place the benches along the square's walls, so that the square becomes a little more open" [female]

Listing 8. Youth expressing very concrete complaints and providing concrete suggestions.

People are seeking real impact with their comments. They bring up specific problems they observe, are brainstorming new ideas and make suggestions, and think about the people in charge who could improve the current problematic situation. Through expressing their emotions, they also want to get heard.

Talking it Further 2: From Notions about One Place to Similar Notions about Other Places

A last theme from our data, already apparent in some of the examples above, is a geographical expansion of individual threads (Figure 2 shows a map of the geo-distributed comments in the single thread of Listing 6). Users are not only talking about one place in a single comment thread, but are instead directing the conversation to other places as well and thereby expand their emotions and opinions geographically. Talk about one place inspires talk about and sparks associations to other places – a fact often overlooked by other locative civic engagement systems that restrict whole topics to a single location (e.g. [9]).

Referring back to Listing 2 and Listing 5, we already learned how memories and feelings of one place spark similar notions of another by other users. The childhood memories of one person spark memories and feelings of another at a meaningful place of his own in Listing 2. And, a specific and personal issue raised about one location in the neighborhood is picked up and thereby corroborated at another by someone else in Listing 5.

On the contrary, in Listing 6, instead of seeking similarities, we saw how people contrast observations in a public park downtown on the one side with their own suburban neighborhood that they live in on the other – two very different areas, even perceived as opposed. The thread takes a vantage point in a distant location that is then contrasted to their own local conditions by the original and two other posters. Through this comparison with the downtown area, they criticize and thereby potentially contribute to what is dear to them: their own living environment.

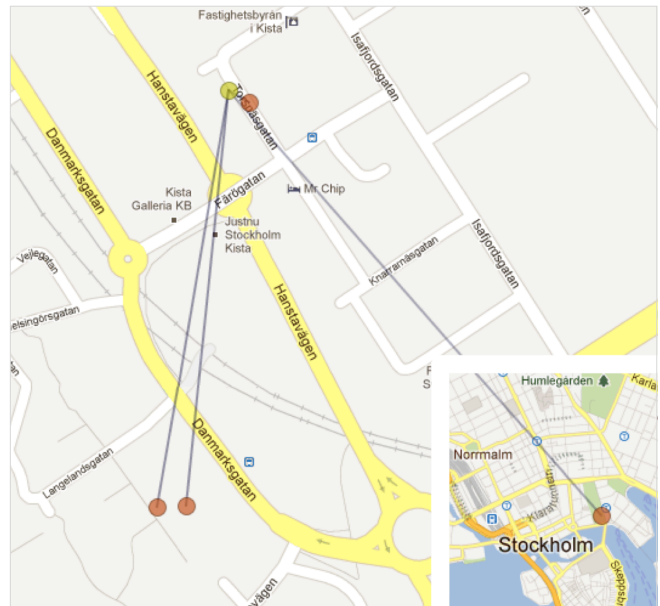


Figure 2. Map with the thread of Figure 6 showing the original comment from the public park downtown (bottom right) and the ensuing conversation in the suburb. (The comment in the lower left has been resend and is thus a duplicate of the one next to it.)

In Listing 9 we have an example of users discussing about their favorite places in the suburb. The original poster talks about her feelings and discontent with the suburb at large. She identifies a beautiful place, but complains that this is the only nice place and the rest of the area is being neglected by city planners. The second poster replies to the notion of beautiful places and provides a suggestion of his own. He does not refer to the issues raised for the suburb at large. The third poster, in the same ‘beautiful area’ of the original poster, refers to the initial place and questions other qualities of it, i.e. its liveliness, thereby in a sense diminishing the observations of the original poster. The example shows how some aspects of a comment get picked up in a reply, while others do not. Interestingly, it is the theme of favorite places that the second poster responds to with a place that he really likes instead of commenting on the actual concerns raised in the original post. The third, in contrast, ‘returns’ to the original place and notion, but does not generalize to the whole suburb.

- ((in a newer area of the suburb))
 "Now I wonder why you just select a location in each area to do so amazingly beautiful and fine and then just not give a shit about the rest of the area. Here I think is the nicest place in Ärvinge but also the only nice place. For no one takes the trouble to make all places equally fine. I am pleased that it is so nicely done with lighting, pizzeria, statues and flowers but not anywhere else in this area. Shame on those responsible." [female]

- o ((at the central square of the suburb))
 "I think this is the finest place in Kista. It's probably the fountain in the middle that makes all things beautiful. Have the urge to swim in it!" [male]
- o ((also in Ärvinge, the newer area))
 "I agree but it's deserted? Is it always like this." [female]

Listing 9. Discussion about favorite places and problems with the suburb at large.

This thread exemplifies, how conversations may diversify in topic and location, thereby not always necessarily leading to coherent civic discussions. Yet, in conclusion, users of IYB discuss and judge about their own living environment, the area that is close and dear to them, facilitated through the system. Meanings ascribed to one place are also relevant to other places. Feelings, ideas, and issues may spread in any normal discussion from one to several places, thus, expanding conversations geographically and in meaning.

DISCUSSION

We approach the discussion in reverse order of the themes just presented looking at what results out of the ‘emotional’ basis. We start with the concepts of geographical expansion of threads and an inter-personal ‘abstraction’ of users in civic discussions. We then discuss the role of narratives, storytelling and playfulness in our findings. By critically reflecting on the three themes, we eventually argue for feelings, memories, and attitudes as a vantage point for (mobile) technology-mediated civic engagement efforts that seek to integrate with people’s everyday lives and their concerns about their living environment.

Geographical Expansion

Users are not only talking about one place in a single comment thread, but are instead directing the conversation to other places as well and thereby expand their emotions and opinions geographically.

The geographical expansion theme is based on a design (and research) choice of IYB with the plan to explore how stories may spread out geographically. Through our analysis we are confident that this is a good design choice and, in itself, a novel design contribution for mobile civic engagement systems. Without very much focus on it in the user interface design, users are already expanding their emotions geographically in conversations on IYB. Having each individual comment geotagged with its own place of creation allows users to broadly explore the diverse aspects of their neighborhood and places of personal meaningfulness – a feature that mimics ‘normal’ conversations where we also often divert and make reference to other places. Instead of limiting conversations (and users expressing their emotions) to the location the original poster chose to talk about (as in other systems such as [9]), other commenters may, facilitated by the system, expand this discussion to other places.

On the basis of our data we are convinced that this, thereby, not only better facilitates more natural and personally meaningful discussions to emerge (as users are *more* ‘free’ to talk about what they want), but also allows users to collect and contrast similar aspects of different places under a common umbrella topic. Instead of the system being swamped by individual, unrelated threads about all kinds of different places (because everyone wants to talk about his or her own special place as we have seen, e.g., in Listing 2 and Listing 9), this functional extension tends to gather comments in topical threads rather than spatial ones. Geographical hotspots can, however, still be analyzed by overlaying *all* comments and threads on a map. In our analysis, we have elaborated on how discussions that are concerned with several different places tend to indeed progress towards civic aspects in the course of conversation (e.g. in Listing 5 and Listing 6). The topical concentration of comments increases the chance for conversations to develop into relevant civic discussions (e.g. in terms of identifying issues and coming up with suggestions).

The increased spatial flexibility of the system also creates tensions. Individual threads may be burdened with irrelevant comments about irrelevant places. Users in a conversation may not talk about places they have all experienced and are personally meaningful to them if the expansion (or the area they are talking about) is too big. However, we face similar problems in other web-based conversation forms. It remains to be studied if the benefits outlined above outweigh these and other tensions.

In sum, we argue based on our findings for the concept of geographically expanding comment threads. This could also encourage users to draw in examples and counterexamples from other places into their discussion, to use it as a means of expression in its own facilitating and gearing this practice towards more relevant civic discussions.

Civic Discussions

Even though the system promotes comments on personal thoughts that turn into quite concrete discussions on change, we have seen throughout the whole design process and in the data that the openness and flexibility also create tensions. Too much ‘openness’ leaves users without a clue of why and how to use the system. Our analysis tells us that people appropriate the system quite differently and that there are many different usages making it difficult at times for meaningful civic discussions to emerge. Only about one fourth of the comment threads concerned memories, feelings, or attitudes and an even smaller amount exhibited some kind of value for or tendency towards civic discourse. Additionally, the comments and conversations in our data are all in all still rather short and shallow (some examples of which we have seen above). There are longer comments in short threads and shorter comments in longer threads (see Listing 2 and Listing 7 for two symptomatic examples). But conversations did not extend over longer time periods, involved many users posting many comments or expressing

many different positions. We are experiencing breadth, but not so much depth. In part, this can be attributed to a lack of critical mass of users [15] and a clear guidance of how the system is intended to be used among the different user groups.

We of course have to ask what these discussions do for youth, for Stockholm municipality, for other inhabitants, and for other stakeholders. How helpful are they? What can actually be learned from them?

Even though a lot of information in the system might be hard to use directly, the system still gathers input that could be used by the municipality, no matter what the intention of the user posting it was. Thoughts and feelings, as well as the at times not so serious solutions may be used to identify problems and find potential areas for improvement. While the comments in IYB may not necessarily be representative, it may be a good tool to give youth a voice. In this situation we need to ask ourselves how empowered youth really are through IYB. In this prototype probably not much, because there is no direct influence, but in a larger implementation this would be dependent on to what extent the municipality, and other people in charge, relate to the content.

We may further ask ourselves if we encourage youth to participate only superficially (e.g. in Listing 7). If contributing with comments to a civic engagement system already gives them the feeling of having made a substantial effort, we may rob them of the urge to engage any further. They may, for example, refrain from directly contacting people in charge if they have already posted the issue or suggestion on IYB silently hoping it would be seen by the right person. Furthermore, taking action also means engaging with established democratic instruments beyond the system itself (e.g. town hall meetings, focus groups, political engagement). How can a path to such activities be facilitated through the system?

Still we believe, if framed right, the municipality can learn a lot from youth expressing memories, feelings, and attitudes about youth's experiences, understandings, needs, and problems in their living environment – even if posted for different reasons. In a follow-up project, we used a similar system (with the added capability to take photos) in a day-long event with a school. We asked students to take photos to record places they like or dislike on and around the school grounds. Afterwards, the students were engaged in a group discussion to talk about their photos. Early insights from that project make clear that we and Stockholm municipality learned a lot about what is at stake in this area and identified several critical elements to consider for the upcoming restructuring of the school grounds.

Narratives, Storytelling, and Playfulness

Our analysis implies narratives on various levels. Individual comments expressing memories and/or feelings can be understood as micro-narratives in and of itself. Beyond, however, we see narratives expand over time, place, people,

relation to each other, and topic. Such narratives interweave emotive, factual, and argumentative content and are key to trigger instances of bottom-up civic exchange among users – much in the sense of Barber's notion of talk [4]. Initially, we see many users appropriating the system very playfully, trying out, gauging what to write: starting with short messages about what they are doing or where they are at, then, increasingly reflections on what they think, feel, or remember about a place. Descriptions of memories are extended with descriptions of what feelings this creates now.

These narratives are followed up by other users, and when read together create a story about the place, and sometimes related places as well. This ties in to the inspiration from Deboard [11], where *dérives* and psychogeographical maps create a collective experience. In this it is possible to get a qualitative and personal understanding of a place from the point of view of a few users, a view we can evaluate in similar ways as cultural probes [14]. The stories often move from reflecting on a memory in the past, to describing a feeling today. These stories are vague, personal, playful, and maybe sometimes even made up. They are part of an everyday playful behavior [17, 20], but still useful to get a deeper understanding of the place. The playful freedom of testing and trying in any way you like combined with storytelling makes this a powerful tool to tell what you want to tell, as long as we manage to listen.

CONCLUSION

The central argument of this paper is that we see meaningful insights emerge out of memories, feelings, and attitudes expressed by the youth users of IYB. This insight is revealing for the neighborhood community as well as the municipality. Essentially we argue that an approach for civic engagement systems with a vantage point in emotions is better apt at understanding what is actually behind people's opinions and arguments, providing *some* idea of why they might think the way they do. In contrast to approaches that focus on rational discussions, on arguments and opinions often expected to be void of emotions (though they never are) (e.g. [9]), this vantage point provides more context and a better way to actually understand people's standpoints in a discussion. Even more, if these emotions lead people to actually discuss civic matters, to identify issues and suggest solutions for their neighborhood, to provide said arguments and opinions, and if these emotions lead people to talk about different places in their neighborhood that are dear and meaningful to them, then this vantage point proves to be very fruitful – as we have shown in our analysis. While this is the case, such use practices emerge and develop over time and thus necessitate a longer-term study.

We add to previous work this argument for emotions in civic engagement systems. And we highlight that this is even more relevant for the socio-politically disenfranchised youth we are working with (and for) that are prone to be unheard and may rather express personal emotions and experiences than abstracted arguments. However, the system

we have presented here is only a prototype, a research vehicle. In the spirit of action research, our efforts are not useful for the neighborhood community until they lead to actual change. People seek real impact with their comments. If they do, we need to actually listen to them or else such systems become meaningless.

ACKNOWLEDGEMENTS

The authors wish to thank Olav W. Bertelsen, Susanne Bødker, Annika Waern, Susann Wagenknecht, and the anonymous reviewers for their fruitful comments.

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