Experience Design to the Rescue for Suburban Social Cohesion

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Abstract
In this position paper, we argue for designing (sub) urban experiences starting out with human needs in mind. We advocate a human centred perspective in the creation of urban life by referencing to an ongoing project aiming to strengthen social cohesion in an ethnically and socially diverse neighbourhood in Vaasa, Finland.

Author Keywords
Experience Design; User Experience; Social Capital; Social Cohesion.

ACM Classification Keywords
H.5.1 Evaluation/methodology and H.5.2 User Centred Design

Introduction
We are currently witnessing a genuinely unique hallmark of human history. Albeit the exact location of the evolution of Homo sapiens is currently unknown, it is probably quite safe to assume that she did not originate as an urban dweller. Current consensus places the cradle of the modern human being in Africa sometime between 200 and 150 thousand years ago [1] and the subsequent societies of hunter and gatherers emerging were characterized by a nomad lifestyle rather than a rooted one alongside strangers within gated walls. Interestingly, the recent phenomenon of urbanization, urged on by factors such as the demand for workforce in industries, led to an explosion of city dwellers. In 2012, the urban folks of the entire Finnish population accounted for 84 %, according to numbers from World Data Bank. The equivalent figure for the European Union is 74 % [2]. Densely populated urban spaces may not exhibit long and prominent roots in the history of modern human

being. Nonetheless, they call for insightful solutions when creating arenas and tools for shared social interactions of urban citizens. Additionally, as we will outline below, keeping the human being in mind in urban planning plays a pivotal role in fostering social cohesion in the local community. Instead of groping in the dark, wasting resources and adding to the graveyard of non-user-friendly solutions, we advocate co-creating together with the targeted citizens in both spiritual and spatial urban matters.

A Sociological Perspective on Modern Urban Life

Sociologist Zygmunt Bauman discusses *modus co-vivendi*, i.e. the art of living together and sharing meanings, of city residents, mostly unknown to each other, in the liquid modernity. Bauman asserts that whereas in earlier days, the city offered people inside the city walls security and safety, today the very same place signifies uncertainty and even fear [3]. The modern urban melting pot is not equated with positive elements in Bauman's eyes. The city environment continuously generates a curious blend of mixophilia and mixophobia. There is mixophobia, translated as an experience of fear of rough areas, of proximity of alien characters, obtrusiveness of foreign customs. Alongside with the mixophobia we find mixophilia, expressed as a sincere curiosity of the otherness and a desire to engage in the others and their habits and customs. Paradoxically, this view contains both of the two widely held notions of the effect of diversion on social connections, the contact hypothesis and conflict theory [4]. Thusly, the experience of the urban environment that Bauman describes reflects both an increased tolerance towards migration and diversity, as well as an in-group solidarity and out-group distrust - at once. This friction leads to insecurity and the progress of a once stable and solid way of life to an ever more liquid, flexible, and disposable lifestyle [3].

The sketches of the current city life of sociologist Robert D. Putnam come in even darker shades. His thorough research on Americans' view on ethnic diversity suggests that the alluring dream of the city being an agora for endless happy encounters did not really fall through [4]. Putnam concludes that ethnic diversity encourages social withdrawal. He describes the ethnically heterogeneous living area as a place characterized by little social trust and a withdrawal from community life. The possibility that migration, as well as cultural and ethnical diversity correlate with a decline in both bridging and bonding social capital, which motivates segregation, has been labelled Constrict theory, dissolving the aforementioned conflict and contact theories. Human activities tend to alter due to immigration and diversity in the American society, as people tend to avoid social life, engage in fewer civic organizations, and feel more helpless in their community. This is a rather provocative and sad snapshot of ethnically diverse neighbourhoods in contemporary society.

However, it is important to state that although social capital seems to be declining in the short run due to diversity, the society stands to gain in the long run due to fiscal, economic and cultural reasons. A successfully carried out integration of immigrants promises cross-cutting forms of social solidarity. The remedy that Putnam offers is not to ”make them like us” but instead to construct a new sense of us, a new we-identity [4]. This is the only wise thing to do in the long run, as research shows that well implemented inclusion of

immigrants into society fosters great creativity and boosts the society in economic as well as cultural ways. Putnam remains rather reticent, however, regarding the evolution of a we-identity that resides above race and cultural heritage. Neither does Bauman shed much light on how to boost mixophilia leaving researchers and practitioners on urban environment and its social life to their own devices [3]. Albeit cities are capable of being laboratories where the art of co-living in an ethnically diverse context may develop and flourish, it seems impossible to completely erase mixophobia from the map. Bauman remains confident that architects and urban planners may play a role in creating a shared urban experience, regardless of one's cultural background. Bauman suggests open, inviting, and hospitable public spaces that would nudge citizens to go there and share meanings and life with other city dwellers. Sharing experiences requires shared space.

A Project for Strengthening Social Cohesion

Based on our research on user experience within the field of HCI, we argue for inviting citizens into the process of creating shared urban spaces and, ultimately in the long run, an evolved we-experience of the city. Human social life lies at the core of urban environment, being its very heartbeat. Understanding how people experience the neighbourhood and understanding their incitements for participating in the community or not and the consequences of their actions is key when designing smart cities. Knowing the need of the human being is all about being wise. By briefly outlining our current research project, aiming at strengthening the social cohesion of an ethnically diverse suburban area with the help of technology, we will describe the features of a human-centred approach when developing technological solutions for urban encounters. End-user collaboration grants a unique and essential insight into the citizens' needs and wants and allows for a solution that reflects these.

The Ristinummi 2.0 project launches digital solutions for fostering social cohesion in the local community of Ristinummi. The district is part of the city of Vaasa, Finland, and is known for inhabiting a dense multicultural immigrant population, as well as an aging Finnish population. The main aim is to achieve social integration of people that might run a risk of not being involved in the community. The two identified target groups are immigrant women and seniors living at home. The keywords include social cohesion, participation, meaningful interaction, and needs-based solutions. The purpose is to ward off the risk of social exclusion and strengthen the social sustainability in the district, as well as the local identity of its citizens. We combine two spheres: real life needs and the context of an evolving city embracing smart and digital technology. The challenge is to digitally support a sense of belonging.

In order to find an answer that satisfies the needs of urban citizens in the area, a human-centred approach is applied. When exploring options for designing meaningful interactions and implementing enjoyable ways to communicate, a first step is to map needs and desires by conducting a background study including, literature review, interviews with the targeted audience and expert consultations. The second step involves planning and designing needs-based (digital) solutions for persuasive inclusion. The third step is the iterative development using a User-Centred Design (UCD) process in which the targeted users will be involved in

testing and evaluating the prototype. During the fourth step, the solutions are implemented in real life. Further research will explore how the target groups will be able to identify with the solutions implemented, and, hence, whether it facilitated and supported their involvement in the community. These project phases are in line with the phases of UCD. Theoretical perspectives that prove fruitful in developing purposeful strategies for designing meaningful solutions include Persuasive Design [5;6] and Experience Design [7]. We will briefly compare these two perspectives below.

Design Perspectives on Modern Urban Life

Persuasive Design is the field of research and practical design with the implicit purpose of changing behaviours and attitudes using interactive technologies. However, persuasive technology is simply persuading people to act voluntarily without using any kind of deception or coercion [5;6]. This genre of design is, similarly to Experience Design, based on principles of social psychology. The background theories used for Persuasive Design is, for instance, theories on how to influence people in effective ways, how to build trust, credibility, authority, and reciprocity [8]. Whereas theories influencing Experience Design is geared more towards the content of an experience to be designed, in relation to human emotions and the satisfaction of fundamental human needs [7; 9]. Thus, Experience Design is rather aiming at creating positive experiences in general without the explicit target of persuading someone to change their behaviour or attitudes, but still not excluding the possibility. However, Persuasive Design is, on the other hand, benefitting from using positive experiences as a base for the design as well. To conclude, one could say that the two perspectives are quite similar, and in many cases overlap. But they may also mean different things depending on the goal of the technological solution.

The goal of Experience Design is to provide positive experiences through artefacts or interactive solutions. The overriding idea is to design technology "for all the right reasons" [7]. This approach requires a basic understanding of what an experience is. We see it as a chunk of time a person went through and is going to remember. It is "sights and sounds, feelings and thoughts, motives and actions, all closely knitted together and stored in memory, labelled, relived and communicated to other" [7, p1]. According to Hassenzahl [7], the key to Experience Design is to be found in the fundamental needs of people, which are seen as triggers of motivation. We argue that designers of digital solutions need to ground their designs in human needs, triggers of actions, as well as the intended goals of the solution. Matching psychology with a targeted behaviour is important [10].

For the background analysis in the Ristinummi case, we are using ten needs as motivators, identified by Sheldon et al [11]. In his research on persuasive technology [6], Fogg identified three core motivators which each has its negative antipode: pleasure/pain, hope/fear, acceptance/rejection. We have exchanged the three core motivators identified by Fogg with the ten needs identified by Sheldon and his colleagues [11]. We need to be more specific in structuring the background study, analysing the needs, and hence motivators, of the target groups, which will be designed for. Fogg's idea is to illustrate how a targeted behaviour is more likely to happen when an individual's high motivation is in line with high ability to perform the desired task. He emphasizes that these factors

combined with an interactive design that triggers the behaviour at the right time is the fundamental base for understanding persuasive technology, and at the core for a good persuasive design.

We took a slightly different perspective on motivators for our background study. In order to design for positive and meaningful experiences in an urban setting, we draw on the theory of Experience Design using fundamental human needs as a starting point for design. We assume that the fulfilment of universal needs plays a crucial role in creating a positive experience in urban spaces. A needs-based approach digs deep in order to clarify where the emotion, motivation, and meaning comes from [12]. Hence, a needs-based approach, in accordance with Experience Design theories, makes it easier to address meaningful experiences in specific contexts for specific target groups while designing and developing (digital) solutions for social cohesion.

Digital Urban Experiences of the Project

Based on a literature review [e.g., 13,14] and interviews, we identified main needs, triggers for action and mapped abilities of senior citizens. Keeping these in mind, we crafted stories to be found in the physical environment with the help of a geo-social service for digital devices, also known as geocaching. The geocaches [1] tell stories of the old Ristinummi meeting the new, presenting historic figures and people with multi-cultural backgrounds residing the area today. Ranging from fairly easy to very difficult to find, the digital treasure hunt in one's own milieu offers pleasurable stimulation while exploring the urban spaces. Such a digital solution meets the need of physical activity, of autonomy and competence, as well as pleasure and relatedness. These all promote individual well-being and foster a community identity. As for lowering the threshold for women with a multicultural background into society, Putnam notes that acculturation is a powerful tool [4]. Our interviews with immigrant women lend support to this theory. As an answer to a need clearly expressed by the citizens, we have created a local digital mentor-program that will support immigrants in the art of living in a highly digitalized Finnish everyday life. Another digital solution, which stems from the need to strengthen the bridging social capital by encountering locals in their homes, is the Teatime project[2] that serves as a link between locals and immigrants meeting each other over a cup of coffee or tea in their homes. These possibilities to strengthen mixophilia are currently being tested and evaluated by the residents in Ristinummi.

Conclusion

In this paper, we have argued for the value of including the human voice in smart urban planning. It is our hope that this position paper has succeeded in pointing to methods of inviting citizens into the process when designing for urban encounters. Doing so both spatially and spiritually paves a way for an authentic shared experience of community and cohesion, stemming from the human beings being part of it.

[1] See for instance: http://www.geocaching.com/geocache/GC5C3Q3_ristinummi-1-the-beginning

[2] www.teatime.fi

Acknowledgements

Our thanks go to ARA for supporting this work.

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