

Social Interaction Design: LydLys

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ABSTRACT

In this paper, we describe the field, process, method, concept, critical assessment and related work of the social interaction design *LydLys*.

Categories and Subject Descriptors

H.5.2 [Information Interfaces and Presentation]: User Interfaces – *interaction styles, prototyping, user-centered design*.

General Terms

Interaction design, experience design, user-centered design, design thinking.

Keywords

Interaction design, urban design, sociality, experimental design, critical design, HCI, user-centered design, design methods, design thinking

1. INTRODUCTION

The LydLys project finds its foundation in the field between interaction design and experience economy. Experience Economy argues that today's consumer has a growing demand for immaterial value through services and experiences as opposed to traditional material value through commodities. Hence, the field of experience economy is about creating immaterial value through experience designs, created on context driven and co-creation principles. [5] Interaction design is closely aligned with the context and user-driven methodologies of Experience Economy and therefore poses itself as a great tool for obtaining immaterial value creation. Cf. Thackara [6], the innovation technology today has drawn people away from each other to a point, where people show signs of "technological autism". Though, he also stresses the potential for technology to lead people together again and "back into the situation" in terms of the humane and the local. This is "designing for locality" where contextual comprehension and contextual involvement are significant features in obtaining this vision. Accordingly, Thackara argues that the values of interaction designs are:

1. They can facilitate community and contact between people that support basic social human nature
2. They create value by permitting richer and more varied forms of interaction. Focus is on stimulating a multi-sensible potential. The produced type of communication is therefore playful, intuitive, moving, surprising, and fun.
3. They are technological designs that create service and flow in stead of products

2. PROCES AND METHOD

LydLys is a project inspired by the academic theme DO-IT-TOGETHER at the MA program Experience Economy at Aarhus University. We investigated public spaces in Aarhus, which we found were poorly used for social activity. We contacted the Nature and Environment Department at Aarhus Municipality to form a partnership. They shared the same concerns about the city's public spaces and wanted to rethink the green spaces and give them other attributes than just being green. Here our vision took a distinct shape; we wanted to reframe urban green spaces into the environment and support human social activity instead of discriminating it in favour of logistics and efficiency. We wanted the green spaces to be responsive to human presence. We were much inspired by Gehls visions of redesigning the city spaces in a *Human Scale*. [2].

The design process was influenced by a human centred and thoughtful design approach [11], where we applied a wide range of ethnographic design methods. Initially we used contextual inquiry in the form of observational studies conducted in the public sphere, deep semi-structured interviews with different user-segments, focus groups and user studies to frame our design situation [12]. We validated our deep insights through a quantitative questionnaire survey. The deep insights we gathered through our initial design research lay the basic starting point for our future conceptualization. We applied ideation and conceptualisation techniques like user-co-creation workshops, experience prototyping and visualisations to converge out insights into concrete concepts [13]. The concrete and materialized concept made it easier for us to conduct further research and test the ideas, hereby insuring the human desirability, the economic viability and the technological feasibility of the design. The human centred design approach allowed us to ensure stakeholder commitment from our partners and future users by involving them highly in the design process itself. The users involved in the process played a significant role and heavily influence our final design. They had a major generative effect in the emergence of the design itself. This was done through user-involvement from day one and throughout the entire design process.

3. CONCEPT

Thus we created three social stations with seating facilities in a triangle formation, each surrounding a tree. A light and sound design is attached to this setup. Each tree has a microphone that detects the sound of human conversation. This sound data is then transmitted into a light design in the opposite tree crown. The light reflects the volume of the human conversation in an organic pulsation that makes the tree feel alive. The greater the volume, the more elaborate the light will pulsate in the tree. Hereby, the light design manifests itself as an embodied metaphor of human acidity.



The idea is to facilitate mediated contact between strangers. The trees are integrated with each other in a manner that makes it impossible to affect the light of your own tree. You can only affect the spaces around the two other trees through your voice. Although the design structure inherently is very simple, it manages to create a playful and aesthetic environment that facilitates human contact in green urban public spaces. What people decide to do with this mediated contact, is up to them. Therefore the project is highly experimental in terms of creating more social activity in urban public green spaces.

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4. URBAN AWKWARDNESS

In our empiric investigation we discovered that urban people have lost their social abilities in public spaces. We also found that urban people considered the public space an extension of their own private space, and that they felt uncomfortable having social contact with strangers. At the same time, they responded positively on the idea of more social contact and more “life” in the public spaces. They just could not imagine how this could work in a way that would not oppose pressure and awkwardness. Our data indicated that people have neglected the ability to socialize with others in public spaces and regretted this loss of social ability. We wanted to support and recreate that ability by inviting them to co-produce public spaces together instead of letting a minority define the structures, textures and functions. We wanted to use the interaction design’s format to create a mediated connection between strangers that is sensuous and embodied before it becomes direct and conscious. In this way, the design forms common grounds for creating direct social interactions to other public people. We have not yet had the opportunity to test whether direct social interactions actually form as a result of the mediated contact of the design. We can only argue that the empiric data we have collected highly supports the LydLys concept.

5. POTENTIAL FOR AFFECTIVE ENGAGEMENT

This feeling of situated community can also be argued in terms of the vocabulary from the affective field. [1] LydLys activates a so-called *synesthetic* effect where multiple senses are activated at

once through the “audio-visual” metaphorization of human conversation via the light design in the trees. Also affective pre-experience is occurring through so called *micro-perceptional* shocks that emerge when people sense data without comprehending them and assigning meaning to them at first. In addition the specific atmosphere created by the design activates an *affective tonality* that shapes the experience in a pre-cognitive way. The expected emotions forming from this affective engagement, are hence *situated community* and *empathy* towards the stranger in opposition to fear. Accordingly, the effect we hope to gain from LydLys is to open an experimental field through affective engagement that can urge the public people to view their public social practices in new ways. Ultimately, we see LydLys possessing the ability to modulate the potential for shaping new forms of social practices in public spaces, and thereby creating a healthier society.

6. RELATED WORK

Interaction design in the urban space is widely tested with various affordances and motives¹. LydLys specify itself by aiming to obtain increased social activity among urban strangers, by exploiting the field between user experience and interaction in the urban area. Much similar to LydLys’ aim is *Kollision’s light spots* [4] and *The Familiar Stranger Project*. [7]

The Familiar Stranger Project inscribes itself as a type of *locative media art* [3], which engages with technological appropriations on urban city spaces that lead to change of practice manners. The Familiar Stranger Project is based on Bluetooth technology. When two people meet with such a mobile app, the device registers the presence of the other and marks it with a red square. The other person’s unique characteristics are stored. At the next meeting between the same two people, the other person’s presence is registered with a green square. In this way, the colour code indicates whether you are passing a “familiar” stranger or not. Kraan notes that though there are many locative media art projects that tries to facilitate contact between public people, all of them are online and not physically based: This is exactly the challenge that LydLys takes on, and how it crucially differs from The Familiar Stranger Project.

Light spots by Kollision aims to create increased sociality by letting by passers interact in a playful manner. The design consists of three spots, which can interact with each other by changing colours depending on the way they are directed. Emanating from each spot is a red laser pointer, which - when turned towards one of the other spots - initiates this visual interaction. Though, LydLys and Light spots share a similar goal. LydLys differentiates by reacting on already existing practices in the urban space, thereby demanding less of its users. As supported in our empiric data, people desire the possibility of interacting with strangers without the risk of being turned down or experiencing an awkward situation. According to Sennett [8] the risk of people experiencing

¹http://www.lozano-hemmer.com/voz_alta.php
<http://uva.co.uk/work/volume>
<http://www.situatedtechnologies.net/?q=node/77>
<http://urbanixd.eu>
<http://www.amazon.com/From-Social-Butterfly-Engaged-Citizen/dp/0262016516>

failure in a social encounter coheres with the amount of energy they invest in that encounter. LydLys reduces that investment by reacting on people's practices, without need of activation or other investment, thereby creating a visual platform for low-risk encounters. The hope is, that this platform can become a stepping-stone for deeper and more meaningful encounters successive to the one mediated by LydLys.

7. CRITICAL ASSESSMENT

There are also critical aspects of the design. In a digital present where surveillance and privacy issues are of urgent concern, it is possible that the design will meet resistance. This, however, depends on how you perceive the design. If the design is viewed as a *radical design* [9] it may cause people to reflect on the above issues and their own actions and thereby supporting debate and reflection.

Another problem that the design poses is its simple interaction form: Will people "get it"? The simple and partly hidden form of interaction that is used in the design may prove to be problematic. Will people understand that they can interact with the design? A solution to this problem would be to implement clear *calls-to-action* and *affordances* [10] that guide the user in their engagement with the design.

Secondly, the design poses a very simple interaction form through light and sound. This is entirely deliberate since our empirical user centered data, highly supports a simple structure. Additionally, we believe in the notion 'less is more'. Our empirical data leaves us to believe, that the user will have an easier time to deconstruct the design and produce meaning, by making the interaction less complicated to use and understand. Also, this is a design, which has its place in the public space and therefore it has to be accessible to a wide audience. This includes the elderly, children and people with handicaps. This is also an important contextual aspect of the design. By making the design simple and easy to engage with, we try to include all people in the public space and stay true to our empirical insights.

8. CONCLUSION

LydLys works in the fields of Experience Economy and interaction design. It is developed under contextual design principles. The design itself consists of three green social stations that facilitate mediated contact between strangers in public space through a light and sound design. LydLys is not yet tested in a full-scale

setup and therefore remains a highly experimental project in terms of creating social value.

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