TRAPS & TRIGGERS - Design for Discussion

Rune Nielsen
CAVI, Centre for Advanced Visualization and Interaction
Institute of Information and Media Studies
University of Aarhus
Aarhus N, Denmark
+45 89425720
rune@cavi

ABSTRACT

This paper presents a workshop - *TRAPS & TRIGGERS* - that took place at the University of Aarhus in 2005. The workshop was part of a greater course, *Interaction and Space*, where students work with innovative and spatial interaction design. The paper describes the approach of the workshop by relating it to other design traditions and finally evaluates the outcome.

INTRODUCTION

The workshop TRAPS & TRIGGERS took place in March 2005 in CAVI, Centre for Advanced Visualization and Interaction, University of Aarhus. The workshop was carried out as a joint project between the two English interaction designers Ben Hooker and Shona Kitchen (DATACLIMATES) from Royal College of Art in London and people from the University of Aarhus. About 16 student divided into 5 groups took part in the workshop and worked for a month with a specific approach to design introduced by the English guests.

The approach was based on critical design; meaning design that asks questions and makes us think in alternative ways instead of necessarily answering any questions (Dunne, A. and Raby, F. 2001). Dunne and Raby state:

There is a place for a form of design that pushes the cultural and aesthetic potential and role of electronic products and services to its limits.
(…)
Critical design is related to haute couture, concept cars, design propaganda, and visions of the future, but its purpose is not to present the dreams of industry, attract new business, anticipate new trends or test the marked. Its purpose is to stimulate discussions and debate amongst designers, industry and the public about the aesthetic quality of our electronically mediated existence.

(iBid. p 58)

Dunne and Raby propose a relational design that keeps on questioning the very foundation of specific problems and socially relevant topics instead of producing solutions. The approach varies from prototype-like ideas (See for instance *Tunable Cities*, Dunne, A. 1999) to more finished and product-like and imitating objects (See for instance *Placebo objects*, Dunne, A. and Raby, F. 2001).

THE BRIEF

As a starting point the workshop participants was given a brief:

This is a project to explore how hi- and low-tech design interventions can be used to stimulate alternate encounters with everyday aspects of the city.

Part 1: Sample the city

Think of the city as a wilderness, a mysterious and alien landscape. Design and make a 'trap' that steals, samples or captures something from this landscape, e.g. a particular piece of data, or a particular kind of noise, image, object...

Part 2: Re-tune the city

Consider how and where your captured samples could be re-presented (physically or virtually) to the city to create a new situation. Design a system that uses trapping and triggering to mutate or 'extend' an existing space by amplifying its richness, intricacy or narrative possibilities. Find a way to test some aspect of your proposed system.

(Brief by Hooker, B & Kitchen, S. 2005)

The brief reveals more agendas: The students are both given a quite open ended task – to capture and release ('trap' and 'trigger') an observation in the city space - and are furthermore encouraged to perceive their surroundings in a new way and hereby call on them to (re-)explore the city:

Aarhus, like any city, can be thought of as many cities in one. It is a city of physical structures – of buildings, roads, railway tracks, street furniture, cables and pipes; a city of life, noise and motion – of people and animals, cars, bikes and boats; and a city of other, more transient, ethereal stuff – of radio waves, images, dust and data. All these component cities interact with each other to create the variety of urban spaces we are familiar with.

Consider: visible vs. invisible; quiet vs. noisy; daytime vs. night time; surface vs. subsurface; boring vs. beguiling; disgust vs. attraction; perfection vs. mutation; immaterial vs. material; dust and dirt; wireless networks; car park; bus station; tunnels; alleyways; pedestrians; surveillance; recording and transmitting; interrupting a flow; re-directing; ultrasonics; subsonics; infra-red; ultra-violet; electromagnetic...

(Brief by Hooker, B & Kitchen, S. 2005)

A similar interest in and fascination of new aspects of everyday objects with a specific focus on invisible digital information in our surroundings is seen in the work of Dunne and Raby. The designers' projects circle about the way we live with electronic objects – e.g. in the earlier mentioned *Placebo Objects* and *Tunable City.*

THE PACKAGES

In addition to the brief, packages containing objects for interaction was handed out. The objects could be stickers, cord, an infrared beam alarm, a fake surveillance camera, sticky tape etc. (see Figure 1). Objects that could be used to – in one way or another - create simple setups for interaction in the widest sense and 'trapping' data in the context.

Figure 1 A package with objects for 'trapping' the context

The packages were based on the same ideas as *cultural probes* that are similar packages typically containing maps, diaries, disposable cameras etc. The cultural probes are handed out to e.g. the inhabitants of a site, for them to use and then return with their personal stories, pictures and annotations about a specific topic of interest to the designers (Gaver, B. 1999).

In the case of the workshop the packaged was handed out to the students – the designers - free to use for what ever setup concerning the workshop. The groups were asked to use the packages in relation with their area of interest and thus begin to study the context. Even though the packages were only minimally used during the early stages of the process it showed that the introduction to new and untraditionally objects for interaction encouraged the students to feel free in their way of working. Just like the intensions of cultural probes are to open up for new perspectives and ideas, the packages contributed with a new way of thinking of interaction and the context. In combination with a collection of project for inspiration presented to the workshop participants - a mixture of art, architecture and design projects (See TRAPS & TRIGGERS) – the packages became an important part of defining the starting point for the workshop and thereby sat the agenda. The results of the workshop showed that the character of the initial material had

a big influence on the students' work. They began themselves to use new materials and object in their designs and the fascination of digital phenomenon and a strong focus of (re-)exploring everyday objects showed through in their works.

The following section gives examples of the students work and discus their results in relation to the ideas of the workshop.

THE OUTCOME

One month of work including two visits from the English guest teachers resulted in a wide range of discussions and design interventions. During the month the students worked with a critical and relational perspective on design by using different scenario and prototyping techniques that they knew in advance. Their different versions of scenarios and prototypes were continuously discussed by presenting to each other and the workshop leaders.

Figure 2 Dream Trunk: an early stage model of the Dream Trunk that reveals a simple technological solution based on a digital sound recorder and player

Figure 3 Dream Trunk: When the user shakes the Dream Trunk it whispers other people's dreams

One group was interested in working with people's dreams. For this they had build different prototypes of *Dream Trunks* (See for instance Figure 2) that resulted in a version where the user could listen to audio samples of other people's dreams digitally stored in the trunk. The dreams were collected earlier in the process where the group had interviewed people on the street about their dreams. The user then had to shake the trunk to play randomly picked dreams whispered by the trunk (See Figure 3). The trunk was roughly designed and partly covered with postcards and writings from earlier users and illustrated the idea of letting people share private issue.

Another group worked with the concept of creating an exhibition space in a show window in a store in the center of Aarhus. The intension of the project was to create an illusion of an exhibition of people's 'footprints' in the local area. Footprints, meaning tracks of people's use of the area and things left behind: graffiti, tags, dropped items, bacteria samples etc. The idea was illustrated by post-producing a video feed of shadows of curators composing an

exhibition of images representing the collected footprints (See Figure 4). The video was projected onto a show window and could be seen from the street during nighttime. Hereby the project drew the passing viewer's attention towards the many different subcultures that the specific area contains and played with bringing out overlooked items and combining them in new ways (See Figure 5).

Figure 4 Exhibition in show window: The video feed of curators working on the exhibition

Figure 5 Exhibition in show window: Video feed projected on linen from the inside of the shop creating a display towards the street during nighttime

A third group dealt with bringing attention to an arbitrary staircase by registering and visualizing specific data from the use of it. An infrared sensor was mounted at the one end of a staircase and when the beam was obstructed it reported to a computer that registered the number of users and visualized it in a simple graph (See Figure 6). In addition a real-time audio feedback was calculated and by the sound of a series of beeps the user was informed whether the staircase was 'stressed' or not. The more users during a specific measured time interval the more stress and the more beeps.
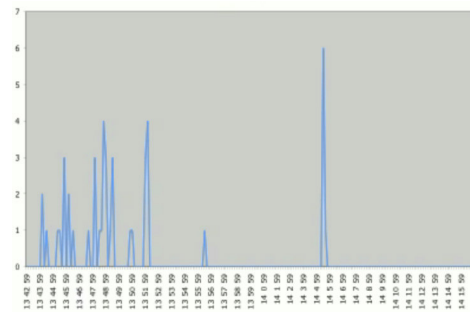

Figure 6 Staircases: A graph illustrating the total of users over time of a specific staircase for calculating whether the staircase is 'stressed' or not

PERSPECTIVES

The above projects testify that the approach of the workshop did lead to new and innovative ideas, that might not be design that address a specific user group nor a traditional service or function, but design that is legitimated by its ability of criticizing, pinpointing and discuss socially relevant subjects.

The works of the groups has contributed with a wide range of discussions during the workshop: From the Dream Trunk that exposes something as

intimate as our dreams and hereby questions private and public interrelations between people. The exhibition in the show window that brings out overlooked elements and pinpoint their existence. And the staircase project that in its simplicity of reflecting the number of users in a heartbeat-like response, plays with a personification of the staircase.

The projects all seem to have found a subtle lingo whose meaning is only understood if the process and the premises are known in advance. No user tests have been made to assure that the designs are friendly and functional; no further explanations are given neither does the designs include manuals or instructions. This lack of communication challenges the use of the design: E.g. the user of the Dream Trunk has to explore the design to - by accident - make it play. The passing viewer in front of the show window has to piece meaning together of the exhibited images. And the mystified user of the staircase is forced to observe other users to let the order of beeps make sense.

The designs developed in the workshop appear more statement-like than traditionally design and its use and purpose is 'limited' to discussions and developing ideas e.g. in an exhibition or research context. Nevertheless it is possible to argue for the openness and flexibility of the approach that is free of the bonds and constraints that design normally is surrounded by.

It has been fundamental to the workshop to introduce a new productive design genre and let the participants of the workshop experience its potentials and limitations by working intensively with the approach. Though the critical and relational aspects of the workshop do not guarantee good design results - there still has to be a good designer to make good design - it demonstrates a genre that opens up the field of design by critically discussing our everyday life and actively takes part in it.

For further information on the work of the participants see the workshops website (TRAPS & TRIGGERS).

ACKNOWLEDGMENTS

REFERENCES

DATACLIMATES [www.dataclimates.com]
(Last visited 01.07.05)

Dunne, A. 1999. Hertzian Tales – Electronic products, aesthetic experience and critical design

Dunne, A. & Raby, F. 2001. Design Noir – The Secret life of electronic objects

Gaver, B., Dunne, T., Pacenti, E. Design: Cultural Probes. January 1999, *Interactions*, Volume 6 Issue 1.

TRAPS & TRIGGERS. [www.daimi.au.dk/~nrune/traps_and_triggers]