

Exploring Interactions in a Public Toilet

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Abstract

This paper discusses the design and role of public toilets in today's society. It shares the process of design for a hypothetical public toilet for the Efteling, Netherlands, for which two concepts have been proposed.

The concept focuses on a solution for claustrophobic toilets, which are a result of shortage of public space in cities and the social context. The concepts also touch upon the spatial nature of privacy and the community role of public toilets.

Keywords

Public toilets, Interaction Design, Privacy & Space, Community Architecture.

Introduction

It is seen that with the shrinking of cities a general lack of space prevails. This also has its bearings on the design of public toilets. This results in an inconvenienced experience for a toilet goer, whether it is in terms of claustrophobia, awkwardness with strangers in the toilet or issues of privacy and hygiene.

This project was initiated as a proposal to the Efteling (an attraction park in the Netherlands) for a redesigning of the toilet experience there. The design process started with research with a focused user group – children, and went on to examine the interaction with adults and visitors of the Efteling. The paper is divided into research, research findings and the two final concepts.

Research

The initial stage of the design was started with a generative session with children aged 6 to 12 years. The exercises included a sensitisation workbook that the children were to fill the week before the session. The start of the session had a 'draw your dream loo' exercise with discussion of the sensitization booklets intermittently. In the second half of the session the children were handed a bunch of 'happy' and 'sad' faces on post-its which they used to express their dislike or liking for objects/spaces in the loo. Later, they refurbished the parts they had marked as being unhappy.

An example of the refurbished idea (fig 1) was a 'character based flush', which the concerned boy said was like a friend in the loo. Another example was of a 6 year boy wanting a camera to see everyone entering the building.

The second stage of the research aimed at getting feedback on problems that people faced in general in the Efteling toilets, with an emphasis on their emotional experience (fig 2).



Figure 1. Generative session with children and the refurbished flush.



Figure 2. Interviews in situation (Efteling). Use of emoticon based cards for interviews

This exercise gave a realistic picture of the habits of 'people clusters' visiting the Efteling. For example a group with 5 children had to go to the loo most often as each child would have to go to the loo only at the last minute, the nursing mothers preferred to use the handicap loo as it was bigger and could fit a pram, the younger boys used toilet cubicles instead of the urinals for ergonomic reasons, children often spoke to their parents from inside the cubicles to assure them of their presence. Often people had to wait for a member if he/she had to go to the loo. All such factors were recorded and used in generate concept ideas.

Research findings

The recorded sessions and interviews were made into transcripts and additional field observations added to them. The transcripts were divided amongst the researchers and statements and insights sorted individually (by way of statement cards); these were later brought together (triangulation exercise) and clustered into prominent subthemes. The resultant info graphics was a map of relevant feelings, concerns and behaviors in the interaction between people and people, people and objects, people and environment in context of the Efteling loo (fig 3). In addition, five basic stereotypical visitor clusters of Efteling were identified and represented as 'group personas'.

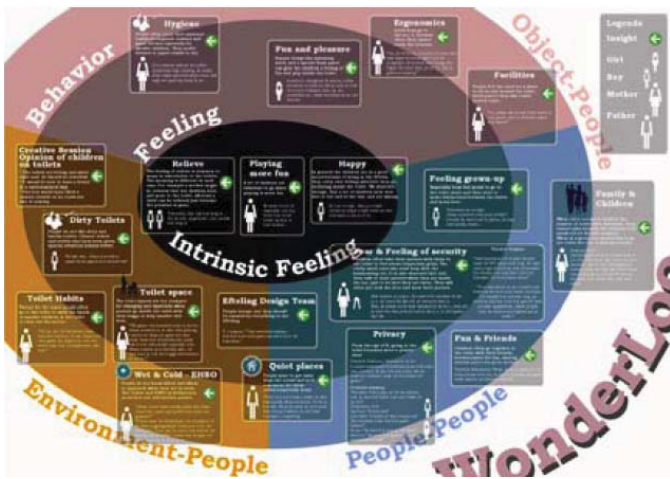


Figure 3. Info-graphics for the toilet interaction system.

Out of the interactions mapped, a few problem areas came out as being quite widespread, these were picked up to be worked on. The concerns chosen included the feeling of claustrophobia, fear and a feeling of insecurity (especially for children), awkwardness with strangers, waiting queues and the underlying privacy issues.

Concepts

Concept 1: Permeable Space

The concept aims at removing the feeling of claustrophobia by proposing a virtual expansion of the space in the loo (fig 4). The loo wall is sensitive to human presence and movement, and goes transparent (invisible) at the spot a person is standing. The more the number of people inside the loo, the more transparent its walls get (<http://www.youtube.com/watch?v=jBzc9YoKB9Q>). This results in a virtual expansion of space (arising from this permeable vision). An evaluation session indicated that giving a 'real time' transparency effect would compromise privacy. Rather, an element of play needed to be added to the concept so as to be perceived as simulated and not compromise the users' sense of control over their surroundings. One of the concept iterations suggested in the sessions was the adding of sightings of Efteling creatures to this vision effect. But the characters that the users suggested were too stereotypically gender specific (the boys wanted dragons, the girls princesses and ponies). In the final concept, to preserve the feeling of privacy the effect of transparency occurred with a seasonal time gap - if it was summer, it would show the scene outside as being winter. The footage seen outside by this effect is taken from the security camera archives of Efteling.



Figure 4. Concept - Permeable space.

Concept 2: Privacy gradient

The concept pin points the cause for the psychological discomfort and awkwardness of people in public loos as the infringement of their 'concept of privacy'. An indication of which is the avoidance of eye contact and conversation between strangers in loos.

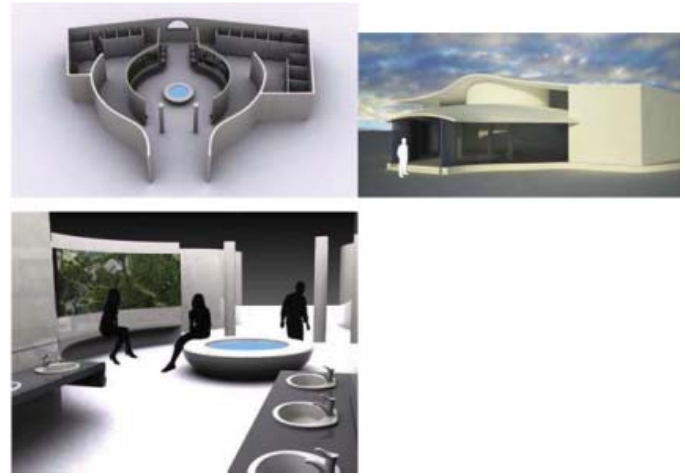


Figure 5. Concept - Privacy gradient.

The proposed loo creates a privacy gradient in the toilet space, such that the transition (human movement) from a public street to a private loo cubicle is gradual and not abrupt. This gradual change is brought about by social spaces (that encourage communication, shared experience) and visual transparency (relating transparent spaces as public and opaque spaces as being private) as buffering agents to achieve this interaction. The social space is a semi-private area that you enter first, where you can refer way-finding information, maps, read notices or just rest for a while. It follows from the pattern of the 'central courtyards' seen in multicultural community architecture. Apart from being a privacy buffer (like the drawing room in a home), it encourages a community feeling such that the occupants can feel more comfortable with others and themselves.

This central social hub (watch walkthrough movie <http://www.youtube.com/watch?v=Vn3OxBCxyfQ>) also provides shelter for waiting queues and demarcates a safe zone for the children while their parents are in the loo.

Conclusion

At a home a toilet is considered as a private area, and is often decked with personal articles and accessories, similarly a public loo can be philosophically considered as a private part of the city. The level of comfort that the people in a city feel in using a public loo has something to say about their community spirit. The concept of privacy depends on many factors including culture, sex, age and other contexts. In a situation where people are comfortable with their own 'dirt' yet are repelled by a public toilet because it is used by many others. The issue of perceived hygiene can be useful to study further to design better public loos.

Through the two example solutions it is hoped that more attention would be invested in the design of public loos in future. Making them more comfortable and novel so as to become an important 'shared' experience in a community.

Acknowledgements

Many thanks for the Efteling design team for their advice. Thanks to my tutors Marijke Melles and Mark van huystee. And the coordinators of the course exploring interactions - Pieter Desmet and Stella boess. I kindly acknowledge the participating schools, children, and parents and thank all colleagues for their support.

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