UNSCRAMBLING THE "AVERAGE USER" OF HABBO HOTEL

Mikael Johnson
Helsinki Institute for Information Technology
Helsinki University of Technology and University of Helsinki
Finland

Abstract: *The "user" is an ambiguous concept in human-computer interaction and information systems. Analyses of users as social actors, participants, or configured users delineate approaches to studying design-use relationships. Here, a developer's reference to a figure of speech, termed the "average user," is contrasted with design guidelines. The aim is to create an understanding about categorization practices in design through a case study about the virtual community, Habbo Hotel. A qualitative analysis highlighted not only the meaning of the "average user," but also the work that both the developer and the category contribute to this meaning. The average user a) represents the unknown, b) influences the boundaries of the target user groups, c) legitimizes the designer to disregard marginal user feedback, and d) keeps the design space open, thus allowing for creativity. The analysis shows how design and use are intertwined and highlights the developers' role in governing different users' interests.*

Keywords: *design-use relationships, user, designer, categorization practices.*

INTRODUCTION

Designers and users are commonly treated as trivial roles in research on design processes, but the question, "Who are the users?" is far from trivial. Take, for instance, the case in this paper, the on-line chat and game environment Habbo Hotel. Should the users be defined as the Internet surfers who visit the hotel at least once a month? This is the designation of users when discussing popular Web site statistics. Considering Habbo's role in the everyday life of some teenagers, one could say that the Habbo users are mostly teenagers who—apart from going to school, practicing their hobbies, and spending time with their families—log on to Habbo for 30 minutes a day. Yet another way of describing the users, found on the Habbo Web site and in their press releases (Sulake 2006a, 2006b), is to say that they are creative habbos[1] who decorate magnificent guest rooms in the on-line hotel and spend time with their

friends there. From a global perspective, one could perhaps say that the users are privileged children whose parents have an Internet connection at home. Or, considering all the different stakeholders of Habbo, the users could be defined as those whose income does not depend on Habbo's commercial success.

These brief examples show that, depending on who is asking, when and for what purpose, there is a wide range of alternative designations for the users[2]. This diversity of meanings for the term user highlights its elasticity, making it a blessing for some, but a curse for others. In addition, the term also is commonly used interchangeably with *actors*, *participants*, *humans*, *knowledge workers*, *customers*, *interactors*, *citizens*, and so on. It is no wonder that the user-centered design literature warns against designing for the "elastic user," and recommends the use of techniques for personifying the user, such as personas (Cooper & Reimann, 2003).

The ambiguousness of the user has been noted and problematized by a few researchers (Oudshoorn & Pinch 2003; Stewart & Williams, 2005; Westrup, 1997), and there are several different approaches to studying use-related processes of design and innovation in information and communication technologies. In this article, I distinguish between users as social actors (Lamb & Kling, 2003), users as participants (Hales, 1994; Kling & Gerson, 1977), and users as co-constructed and configured (Mackay, Carne, Beynon-Davies, & Tudhope, 2000; Woolgar, 1991). A focus on design-use relationships and an ambition to make sense of a developer's reference to the "average user" guide the comparison of these approaches. The aim of this paper is to provide a means to understand and tackle the dilemma of user categories and their management in practice, in the design and the continued development of virtual world features for complex and heterogeneous communities.

How users are defined and by whom greatly shapes the result of any design process, since undoubtedly the words that we use shape our outlook and affect our behavior. The increased number of people using computers at home and in leisure situations, as well as emerging software for virtual communities, has created a need for both researchers and practitioners to reassess Grudin's question from 1993: "Have our terminology and habits of speech kept up with the changes, or do they perpetuate an outmoded perspective that holds us back?" (p. 112). This became one of the tasks for the Mobile Content Communities research project that started in 2003 (Turpeinen & Kuikkaniemi, 2007). One of the aims of the project was to understand virtual communities (Porter, 2004) by trying out design concepts, models, and prototypes.

This author participated in a case study on Habbo Hotel, which contributed to one of the results of the project: a community model[3] that aims to sensitize designers to ask the right questions about social and cultural issues of computer-mediated communities. During the 3 years of the study, Habbo grew from a popular on-line meeting place for 1 million regular visitors in five countries to more than 7 million visitors in 18 countries. The company developing Habbo, Sulake Corporation, grew from a small organization of about 50 employees to a medium-sized organization with 270 employees (Sulake 2006b).

The fastest way to get insight into the Habbo communities is to read the Habbo-themed Web sites, also called *fansites,* created by active community members. These fan magazines on the Web are broadly known among Habbo visitors and many visit them as often as the hotel itself (Johnson & Toiskallio, 2005). The fansites can be seen as an amateur media world around the Habbo site that informs community members about Habbo news, gossip, opinions, hints, events, competitions, and so on. Because they complement the official Habbo Web site and influence the norms for behavior in Habbo, the fansites play an integral part in the communities.

In interviews I conducted with Habbo developers, I learned that the fansites have become an important source for user feedback. The fansites were a frequent topic during the interviews, and in this paper I reflect on one developer's statement about the community members participating in the fansite discussions. The developer referred to the Habbo Hotel's "average user," which at first seemed like a strange category, especially since human-computer interaction (HCI) literature discourages design for the average user. However, in this paper the developer's reference to the average user is taken seriously.

This concept of average user has been analyzed to understand which subcommunities are given voices through the fansites. Especially interesting is the developers' agency, or their ways of shaping the user groups while they speak. First, this paper begins with a literature overview of different approaches to users. It continues with a brief introduction to the fansites, to contextualize the text extract from the interviews with Habbo developers. After the analysis of one developer's reference to the average user, these findings are related to the other Sulake developers' ways of speaking about the users.

WHO IS THE "USER"?

User is a highly controversial and ambiguous term in computing. Recent user-centered design literature defines the user in two major ways. First, users are defined in terms of their knowledge of computers or of a particular computer program: as novice, intermittent, or expert users (Shneiderman, 1998). Second, a distinction is often made between those who actually operate the computer, the primary users, and the secondary users, who are indirectly affected by the computer system (Courage & Baxter, 2005; Hackos & Redish, 1998). In addition, Courage and Baxter (2005) recommend considering anti-users, who would not buy or use the product. Hackos and Redish (1998) warn against confusing users with buyers, against interacting with surrogate users only, and recommend studying users as members of communities. Table 1 summarizes these viewpoints.

However, outside local design contexts and for research purposes, there is a need to define the user more carefully to achieve a shared understanding. This has been a challenge, since different fields of research discuss users differently. In HCI, *user* traditionally referred to a person sitting in front of a computer in an office, completing tasks by entering information and commands and using the output. In contrast, the information system (IS) user refers to a beneficiary of the computer output, who might be a person (or even an organization) not directly interacting with the computer. To distinguish the person sitting in front of the computer, IS researchers talk about "end users" (Grudin, 1993).

Table 1. Users in a Sample of the User-Centered Design Literature.

Hackos & Redish (1998)	Shneiderman (1998)	Courage & Baxter (2005)
Primary users Secondary users User communities ¬Users as buyers ¬Surrogate users	Novice or first-time users Knowledgeable intermittent users Expert frequent users	Primary users Secondary users Tertiary users Anti-users

Over time, these differences have changed, since the HCI researchers have followed the user outside the office, into mobile technologies, and the use of computers in leisure contexts. In particular, research on user experience and mobile HCI puts the user in mobile contexts of use (Maguire, 2001; Toiskallio, Tamminen, Korpilahti, Hari, & Nieminen, 2004) with a focus on fun and pleasure (Blythe, Overbeeke, Monk, & Wright, 2003), instead of the traditional effectivity and efficiency focus within work contexts. Also, some researchers report that the term user is understood differently in the USA as opposed to Scandinavia. Carmel, Whitaker, and George (1993) find an unambiguous definition of *user* impossible:

> The North American reader understands "user" to mean any non-IS/nontechnical individual in the organization who is affected by the system—this includes managers. The Scandinavian reader understands "user" to mean any operational worker who is affected by the system—this does not include managers. (p. 40)

Friedman and Cornford (1989, p. 274) report similar differences, stating that Scandinavians seem to be more likely to consider power relations between users and system designers in their definitions, whereas American analyses tend to focus on personality conflicts and differences in cognitive styles. However, these generalizations have exceptions (Kling & Gerson, 1977; Lamb & Kling, 2003; discussed below), so it is not clear to what degree these cultural aspects have shaped or continue to shape research on the user. The globalization of research and the increase of the number of both publications and researchers have probably made the fields more heterogeneous.

Another difficulty in defining the (computer) users is that the computer technology has changed a lot since its invention. From being room-sized and expensive equipment available only to a few, the hardware innovations and mass production of computers have made them smaller, mobile, and more affordable. This shift is noticeable in the change of the meaning of the term user. In the early days of computing, the user referred to those who used computer hardware, in other words, software developers (Friedman & Cornford, 1989; Westrup, 1997).

In sum, *user* is a complex term. So far, one can only say that it is used in the context of computer systems development, and its meanings have changed over time and space (e.g., USA vs. Scandinavia). This encourages a further look into different approaches to users. Without aiming for completeness, I will explore three approaches in which users can be distinguished: as social actors, as participants, and as co-constructed and configured.

Users as Social Actors

The definition of users within the HCI and IS fields has been challenged because of its implicit technocentrism (Kuutti, 2001). Those opposing the use of the term argue that when a person is defined with respect to a technological system, as a computer user for instance, this represses other more relevant identities as well as the multiple and intertwining reasons for use. In contrast to many car owners, who identify themselves as owners, few computer users make a lifestyle (or identity) of being someone who uses computers (Grudin, 1993). More important identities are their professional identities, the relation to their family and special someone(s), hobbies, and so on. Most people who use computer applications utilize multiple

applications, in various roles, and as part of their work or leisure activities, while interacting with a variety of other people in multiple social contexts (Lamb & Kling, 2003).

This critique is noted in some studies on designers' conceptions of the users (Dagwell & Weber, 1983; Isomäki, 2002; Kuutti, 2001; Nurminen, 1988), arguing that these conceptions influence the design more fundamentally than do applying human-centered design methodologies. The fear is that the designers cannot contribute to the humanization of computer systems with socially thin concepts of the users. Lamb & Kling (2003) have responded to the critique of those user concepts that include only individualistic or cognitive dimensions, by reconceptualizing the user as a social actor. Their view of a *social actor* is based on four dimensions: affiliations, environments, interactions, and identities (see Table 2).

Their concept has clear benefits: It is "1) predictive without being deterministic, 2) scalable, based on the multilevel explanatory power of institutional theory, and 3) extensible in multiple ways" (Lamb & Kling, 2003, p. 221). This critique intentionally leads away from the reference to systems development in defining users, which can be fruitful in studies of ICT use.

Research in the field of information systems is influenced by and related to both the "social shaping of technology" approach (MacKenzie & Wajcman, 1985) and the "social construction of technology" program (Bijker, Hughes, & Pinch 1987)[4]. These approaches shared the aim of criticizing technological determinism by coupling technology to designers' conceptions and values. In addition, political, economic, and cultural interests as well as established social categories, like class and gender, were seen as shaping technology (Sørensen, 2002).

However, even in these more nuanced models of the user, the perceived "problem" with current design processes seems to be the designer. Seeing the designers as almighty heroes or demons, either praising or blaming only them, has been criticized as the "design fallacy" by Stewart & Williams (2005). They argue that a design-centered view describes technology as finished when leaving the hands of the designers, which ignores the innovation that takes place in use. If technology is seen as influenced by designers only, this also ignores user involvement in design. These shortcomings are partly resolved if the users are seen as participants in design, as in the next subsection.

Table 2. Social Actor Dimensions (Lamb & Kling, 2003).

Affiliations	organizational and professional relationships that connect an organization member to industry, or national and international networks
Environments	stabilized, regulated, and/or institutionalized practices, associations, and locations that circumscribe organizational action
Interactions	information, resources, and media of exchange that organization members mobilize as they engage with members of affiliated organizations
Identities	avowed presentations of the self and ascribed profiles of organization members as individual and collective entities

Users as Participants

The definitions of users can also be seen as reflecting design philosophies, as has been the case particularly in the computer-supported cooperative work (CSCW) field (Mackay et al., 2000). For instance, Mike Hales (1994, p. 155) discusses different conceptions of users based on

different design styles: users as clients (the "specify and deliver" style), users as actor-constructors (the "enable and empower" style), and users as codesigners (the "reflect and reinterpret" style). These distinct design styles designate the different ways of users participating in the design. The multiplicity of actors in design is highlighted by Kling and Gerson (1977), who distinguish 14 major orientations that people may adopt within the computing world (Table 3). They are arranged by their closeness to the center of the computing world (Kling and Gerson's concept for all those people and groups that collectively produce computers and computer-based services). The first eight orientations are insiders, while people who adopt the last six positions are more in the margins.

From this perspective, the term user is not about identification but participation in the technology production. The user is seen as a very established category referring to a particular way of participating in technology production. It is not a very favorable position, since traditionally the innovation is seen to flow from the developers via the other stakeholders to the users, and not vice versa. The interests of the users traditionally are not served first, because business and technology production are primary, which leaves the user interests in a challenging position. In Hales' (1994) view, where the users' relation to production becomes visible, emancipating the users becomes less a question of finding other labels for this group and more a question of organizing the production differently.

Friedman and Cornford (1989) have studied the history, organization, and implementation of computer systems development. They found a six-fold typology useful to explain the changes of the computing world over time: a) patrons, who initiate the system, b) clients, for whom the system is intended and designed, c) design interactors, who are involved in the systems design process, d) end users, who directly operate the man/machine interface, e) maintenance/enhancement interactors, and f) secondary users (both the system victims and those who benefit indirectly from it).

According to Friedman & Cornford (1989), the user relation became the biggest critical factor constraining development in the early 1980s, after the hardware and software constraints were mitigated in earlier phases. To decrease the distance between programmers and end users, five major strategies emerged to reorganize technology production: a) user involvement, b) end-user computing, c) decentralization, d) prototyping, and e) job rotation (p. 271).

Table 3. A Sample of Research on Users as Participants.

Kling & Gerson (1977)		Friedman & Cornford (1989)	Hales (1994)
technology stimulators	users	patrons	users as clients (the "specify and deliver" style)
innovators	feeders	clients	users as actor-constructors (the "enable and empower" style)
diffusers	tenders	design interactors	users as co-designers (the "reflect and reinterpret" style)
vendors	sustainers	end users	
service providers	hobbyists	maintenance or enhancement interactors	
educators	consumers	secondary users	
system architects			
application architects			

These and other movements strive to give the users greater influence in the technology production. Some aim to influence the process: involving the users early on, demanding a multidisciplinary development team, or applying iterative design cycles with prototypes and user evaluation in all phases. As Hales (1994) noted, the emphasis put on participation, democracy, and emancipation varies in different approaches. For instance, participatory design (Ehn, 1988; Greenbaum & Kyng, 1991; Schuler & Namioka 1993) gives the users the status of codesigners, whereas many user-centered design techniques (Beyer & Holtzblatt, 1998; International Organizations for Standardization [ISO], 1999; Norman & Draper, 1986) maintain that consulting the users is enough. Others initiatives try to influence the product by making sure that the division of labor between people and machines is appropriate (Mumford, 1983), or making it flexible to support customization (Andersen, 1999; Kay & Goldberg, 1977; Laukkanen, 2005; Mørch, 1997; Nardi, 1993). A third focal point is the methods and techniques to represent the work processes and their relations to the computer system (Bødker, 1998; Checkland & Scholes, 1981; Mumford, 1983; Suchman, 1995), as well as the models of the user and contexts (ISO, 1998, 1999; Maguire, 2001).

However, despite the good intentions and the recognition of the multiplicity of actors involved, these participatory and user-centered design initiatives have been criticized due to lack of impact on system design overall. Stewart and Williams (2005) note many obstacles to the wider applicability and uptake of the initiatives, and strive to broaden the understanding of the design process. They argue against too simplistic models of the design process and point to studies where many aspects of it have been problematized. One important point is to rely not on armchair philosophy regarding the user, but rather to ground the term user empirically in order to understand design practices.

Users as co-constructed and configured

Since the early 1990s, some researchers have shaped an approach that studies the "configuring of the user," which can be seen as an extension of the broader social shaping research community (Sørensen, 2002) mentioned above. It takes as its starting point that there are no users prior to the conception of a particular computer system. The argument is that qualitative research should not take a category such as the user as given, but instead acknowledge the considerable work that has gone into its constitution (Westrup, 1997). This implies a distinction between the users as imagined by the developers and the users who actually use the system, including an analysis of their interrelations. Woolgar (1991) coined the notion of configuring for the process of "defining the identity of putative users, and setting the constraints upon their likely future actions" (p. 59). His work is an important theoretical move for studying how users are imagined in computer systems development (Mackay et al., 2000). It is one alternative to study the interrelations of the social and the technical in design, especially regarding the construction of "affordances" (Norman, 1988) and "mental models" (Norman & Draper, 1986), both practical and widely used design concepts.

Woolgar's (1991) work on the configuring of the user in a microcomputer manufacturing company has been both extended and criticized. Among others, Westrup (1997) noted that not only are the users configured, but so are the developers. He used his extended version of Woolgar's work to examine two approaches to requirements analysis in a novel way. He argued that the categories of users and designer are constituted by the techniques that seek to

represent them, in this case Mumford's (1983) influential ETHICS/QUICKethics methodology and the techniques of the participatory design project UTOPIA (Bødker, Ehn, Kyng, Kammersgaard, & Sundblad, 1987). Westrup (1997) also highlighted difficulties in the very vocabularies of systems development. Many authors (Hyysalo, 2004; Mackay et al., 2000; Williams, Stewart, & Slack, 2005) criticized Woolgar in that he stopped his analysis too soon, not giving room for the process of consumption work by the users.

Woolgar's (1991) approach, together with similar initiatives from Akrich and Latour (Akrich, 1992; Akrich & Latour, 1992; Latour, 1992), are termed material semiotics by Oudshoorn and Pinch (2003), as they outline influential approaches to the co-construction of users and technologies. Another approach has emerged from gender studies, where the focus is on the mutual shaping of gender and technology, as well as an inclusion of more invisible or implicated actors. Consumption and domestication studies de-emphasize the developers and focus on active consumers using products in ways that might not have been imagined by developers. Agre (1995) suggested that developers do not intentionally try to configure users, and Hyysalo (2004) has drawn attention to the imaginaries bound in the professional practices of developers.

Williams et al. (2005) warn against the tendency of the early work (Akrich, 1992, 1995; Bijker et al., 1987; Woolgar, 1991) to demonize designers as omnipotent manipulators of users, which they see as a consequence of studying snapshots of design or use processes. They argue that technologies should be seen and studied as sums of many projects, configurations of previous technical frameworks, and never complete. All actors involved at multiple locations need to be considered, as well as their interrelations, while remembering that information about the users is typically incomplete and uncertain.

To sum up, there is no general answer to the question "Who is the user?": It is up to the researcher to make the relevant aspects of the user explicit, both theoretically and empirically. I have outlined three different approaches to the user, finding that especially the reconceptualization of the user as a social actor is appropriate if the focus is either on design or use alone. When users are seen as participators in computer systems development, the point is that not all stakeholders can participate on an equal basis. When users, designers, technology, organizations, and so on, are seen as co-constructed, the point is that the distribution of agency, power and actors are empirical questions.

METHOD AND DATA

This paper is part of a larger research undertaking where I study the slowly paced dialogue between different developers and users through material software. Because the Habbo software has several design cycles in a year, it has been possible to study a dialogue that starts from the developers' vision of future use. The vision is realized during game development into Habbo features. Next, the users appropriate the hotel features for their own purposes and invent their own ways of using it. Soon after, the developers learn a little about these more or less unexpected use practices through various forms of user feedback. This feedback modifies the designers' original vision about future use and, as new features are developed, the cyclical dialogue continues with the next loop. In this paper, I freeze the moment when a developer talks about user feedback.

One developer's reference to the "average user" is carefully scrutinized. It is studied as an example of a general dilemma for people engaged in creating products for mass consumption: There is no single "correct" way of categorizing users. Still, all of us act in worlds where we must use categories, and the question is how to manage this dilemma. In this study, the text extract around the "average user" is analyzed with the interview data analysis technique called *membership categorization* (Baker, 2004). The interviews are not treated as simple reports on some state of affairs (representationalism), but talk is considered as social action. This makes it possible to analyze not only the meanings of the categories, but the work the categories do and how they influence development. The categories referred to in the interview talk are treated as empty at first, giving them only the meanings emerging from the particular situation. During the interview the membership categories are elaborated on and refined; the established categories might even be internally conflicting. The point is to understand why conflicting categories are needed to communicate.

In this case study, we (Johnson & Toiskallio, in press) had the opportunity to conduct both quantitative and qualitative research to understand the Finnish Habbo communities. We started with an explorative survey on the visitor profiles (N = 10,000), because no use statistics were available. In 2004 we identified 173 Finnish Habbo fansites, and we analyzed 23 that were written for a large Habbo audience (Johnson & Toiskallio, 2005). The survey findings provided background statistics, whereas the fansites and forum discussions allowed us to distinguish user groups and popular activities. During the spring of 2005, we conducted 10 themed interviews, lasting 2 to 3 hours each, with 10 Habbo developers, or about two thirds of the Habbo game development organization. Six of the interviewed developers (graphical designers, and client and server developers) had been in the organization since the beginnings, 5 years earlier, while four developers had about 1 year of Habbo experience. In addition, we conducted individual, pair, and group interviews, 2 to 3 hours in length, with a total of 12 Habbo community members (users) from different subcommunities. These interviews made further elaboration of membership categories possible.

The interviews were conducted in Finnish, as all developers and the author are fluent speakers of Finnish. All of the interviews were recorded and content logs created. The interviews were transcribed in detail and excerpts translated to English by the author as needed. The different data sources have afforded triangulation (Yin, 1994) of the slowly paced user-developer dialogue. Preliminary results include conference talks on the design reasons behind the retro look of Habbo (Johnson, 2006a), user categorization practices (Johnson, 2006b), and stereotypical images in membership categorization practices (Johnson, 2006c). The approach adopted here is informed by qualitative research (Silverman, 2004) in HCI (Thomas, 1995) and IS (Lee, Liebenau, & DeGross 1997), as well as science and technology studies on the social shaping of information and communication technologies.

CASE HABBO HOTEL

Habbo has its origins in the experiences drawn from two Internet chat rooms, Mobiles Disco and Lumisota. In terms of Internet technologies, Habbo is a graphical chat environment on the Web that can be accessed with a Web browser with the Shockwave plug-in. This chat

environment is designed as a virtual world where people can hang out and make new friends. When checking in to the virtual hotel, one creates one's own cartoon-like Habbo avatar (Figure 1) that can walk, dance, eat, drink, and chat in the cafés (Figure 2), restaurants, swimming pools, and games rooms. Besides experiencing these common rooms in the hotel, one can decorate and furnish a room of one's own. In contrast to many on-line games, there is no entrance fee to the virtual world, which allows the majority of the users to chat for free. Instead, the profit model is based on micropayments in the hotel. Virtual furniture, minigames, and membership in the Habbo club are bought with so-called Habbo credits. These credits can be purchased with prepaid cards, bank transactions, or special text messages that add a specified amount of money to the customer's mobile phone bill.

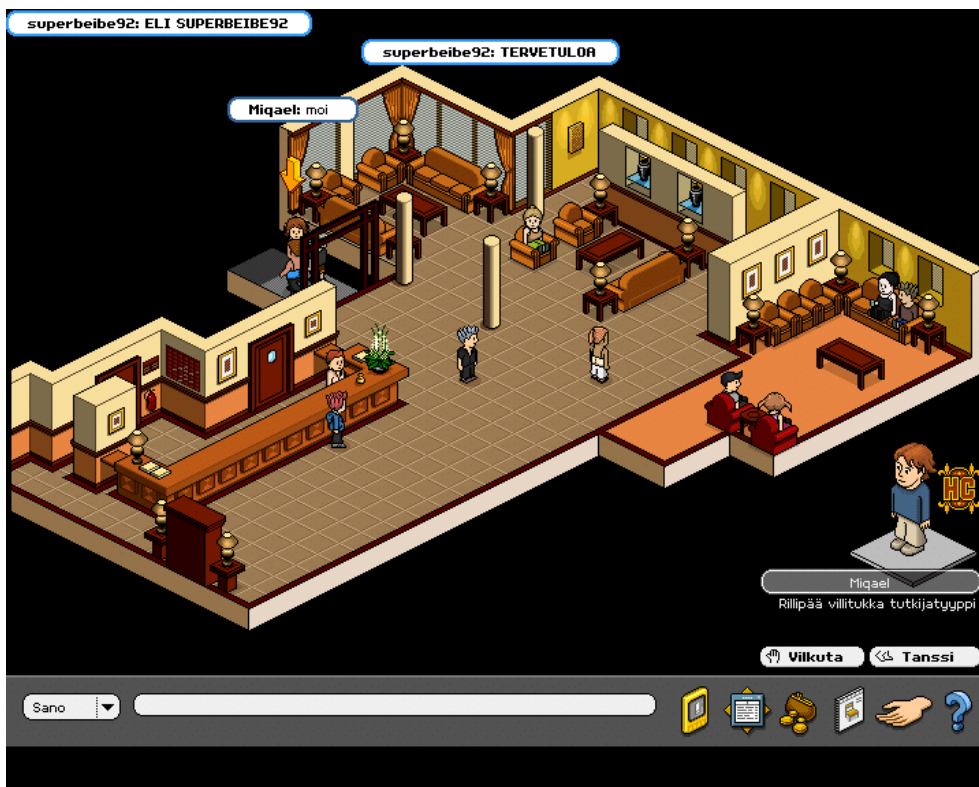**Figure 1.** A Habbo avatar. The image © by Sulake Corporation. Used with permission[5].

Figure 2. The welcome lounge in Habbo. The image © by Sulake Corporation. Used with permission[5]**.**

During the early Habbo days, the hotel was developed by a handful of game developers with their core competencies in graphic design, macromedia flash clients, and java server programming. At first they developed a hotel called *Kultakala* (*goldfish* in Finnish) for themselves and their friends but, already within a year of the launch, the site became popular among teenagers. According to our survey in 2004, 75% of the visitors were between 10 and 14 years old. Later, with the internationalization of the hotel, the organization grew and, in every country where the Habbo Hotel operates, a local office was started with a few employees working on the site moderation, community management, customer relations, and marketing. More administration and business people have joined the headquarters in Finland, and the game development division now includes more than a dozen game developers.

Based on developer interviews, it became clear that the original group of Habbo developers had made use of their own retrogaming subculture. Video games from the 1980s are and have been a great source of inspiration (Johnson, 2006a). This is of course easily deducible by looking at the retro appearance of the Habbo lounge in Figure 2, but there is more to it. The benefits of making Habbo retro include positioning Habbo as original compared to other games that strive to be photorealistic. It also avoids pressure to follow fast-changing 3D graphics techniques, which in turn allows for Habbo to stay popular for a longer time. In addition, there are reduced performance requirements for both client computers and network bandwidth. Finally, the retro look encourages a simplistic design making Habbo easy to use.

Learning from the Habbo Fansites

We (Johnson & Toiskallio, 2005) studied 173 Finnish Habbo fansites in 2004. The focus was on what could be learned about the Habbo visitors and their Habbo practices from user research (Hackos & Redish, 1998; Kuniavsky, 2005), focusing on the membership categories visible through the fansites. Since the fansites are accessible without research intervention, the risk of distorting the data by the presence of the researchers is reduced.

The most popular fansites are usually made by a small team of Habbo fans with different expertise and roles. For example, one designs the look and layout of the site, another one writes the stories, and a third has the technical skill to publish the site on the Web. The most active fansites have small updates (such as news and rumors about Habbo) several times per week, but publish reviews and articles once a week or bi-weekly. Some fansites group their articles together and publish them as an issue of a Web magazine. The Web magazines seem to follow a rhythm of one issue per one or two months. The fansite contents were classified and a list of common fansite elements was produced (Table 4).

Based on the fansites, we clustered the hotel residents into eight groups: a) furniture traders and collectors, b) chatters (in public rooms), c) gang-members and VIPs (insider groups not open to everyone), d) supervisors with administration powers, e) cheaters, f) quiz-makers and players, g) the hotel manager (a Sulake employee), and h) celebrities. Similarly, 11 popular activities were identified: trading furniture, casinos, dating, beauty contests, competitions, dice games, team sports, formula tracks, talk shows, clubs & hotels, and orphanages. More important than the exact details of these listings are two observations about Habbo that they convey: the diverse and commonplace qualities of Habbo. First, there is not one particular Habbo activity that attracts all Habbo visitors, but many different ones. Second, the activities

Table 4. Common Habbo Fansite Elements (based on Johnson & Toiskallio, 2005).

Fansite Elements	Description
News and rumors	Fansites are convenient for Habbo visitors who want to reach a large audience, a fast way of spreading information about Habbo happenings (e.g., competitions, pop idols visiting Habbo), new features, news about Sulake Corp.
Participation	The fansite audience is provided ways to comment on the fansite through discussion forums, guest books, polls, etc.
Links	The fansites link to relevant Habbo places: other fansites, and to the hotels in other countries.
Hints, secrets, guidelines	Fansites teach newcomers both basic and advanced tricks with which to impress others. Guidelines on acceptable behavior are frequent.
Reviews and lists	The fansites keep track of the features and possibilities in Habbo: public spaces, different furniture items, pets, etc.
Histories	Two major histories are told on the fansites: the history of Habbo and the history of that particular fansite
Fashion and celebrities	Habbo "journalists" interview Habbo celebrities, avatars who have become famous in Habbo, and report on fashionable clothing and activities.
Graphics	Edited screenshot pictures are an integral part of many fansites, some even provide pixel graphics drawing schools.
Habbo fiction	A few fansites write fictional stories about characters in Habbo.
About	Who comprises the fansites staff, number of visitors, updates, banners, etc.
Real life	Habbo meetings "in real life," stuff not about Habbo that is important to teenagers, as well as blogs, e-cards, etc.

going on in Habbo resemble games with rules and pretend play familiar from schoolyards, playgrounds, youth clubs, and so on.

The Habbo visitors and their practices seem to be strongly influenced by the fansites. They complement Sulake's official Web site by providing more detailed information about the hotel from an experienced visitor's point of view. Hints, secrets, and guidelines, and stories about Habbo fashion influence the boundaries for acceptable behavior in Habbo. The fansites improve the Habbo visitors' awareness of the fan cultures around Habbo, and also reproduce and reinforce social positions (like potential Habbo career paths or legitimized visitor groups).

Membership Categories

The membership categories from the fansites were further developed, based on interviews and artifacts analyses (Johnson, 2006c). In a discussion on the influence of images on membership categorization, Johnson discussed visual and nonvisual categories (Table 5).

Table 5. Predefined and Emergent Visual and Nonvisual Membership Categories based on Johnson, 2006c).

Predefined visual categories	Emergent visual categories	Non-visual categories
avatar appearance: boy / girl *purchasable badges*: Habbo Club, Golden Habbo Club, Halloween smile *special badges*: Habbo staff, NGO workers, youth workers, mental support, VIP guests *earnable badges*: Habbo X (guides), fansite authors, Battle Ball gurus	*clothing styles*: punk, gothic, teenie, wannabe (strictly dressed), personal style (independent of fashion) *professions*: journalist, nurse, TV show host, bartender / waitress, pharmacist, actor, police, doctor, nurse, fireman, postman, veterinarian, etc. *TV show formats*: Idols, the Bachelor(ette), Greed, Do You Want to be a Millionaire, Big Brother, Survivor, America's Next Top Model, "Dating," etc. *categories formed from value judgments on others' appearances*: good looking, bad looking	*visitors from other hotels* (nationality / language region) speaking another language *age*: small children, "my age" (teen), older *gender*: combinations of nickname, avatar, real body (e.g., boy with girl avatar but masculine nickname) *Habbo age*: newbie, regular, guru *relation to room*: room owner, visitor, shared rights *friends made in or outside of Habbo*: Habbo friends, real friends *trading furniture*: little by little, skilled traders, cheaters *time of day* (is associated with distinct visitors): daytime (children with flu at home, mothers), after school (preteens), evening-night (older, best discussions)

To sum up the Habbo experience, the following dimensions can be found to delineate what is important in Habbo:

- one's own avatar: clothing styles, character description
- one's own room and furniture: collecting, trading, decorating
- friends: school, hobbies, new friends, dating, distant friends
- play: beauty contests (popularity), TV shows, games of chance, Habbo-sports, insider clubs, roleplay, playing with the spatiality of the virtual world
- Habbo Career: celebrities, getting rich, popular room, in a game or gang, being a fansite author, being a Habbo guide
- testing boundaries and rules: expressing self, treating others (e.g., cheating, bullying), finding and using glitches in the hotel architecture.

The Role of Fansites in Development

The fansites are not only important to the visitors, but they also play a big role in the game development. The developers visit them regularly to follow what's going on, reading both articles and forum discussions.

Otherwise much of it [user feedback] doesn't come all the way to me; that's why I try to look at those ... Habbo fansites, what they discuss there, because if I have to

develop something for Habbo, then I should know what's going on there. (Game Developer[6]1)

Game Developer [GD] 2: *We get feedback from the users all the time; it's something that is really important.*
Author [A]: *In what ways do you get feedback?*
GD2: *If we publish, for instance, a red chair then, as soon as it's out there, then the users tell us if it's good or not.*
A: *Where, in Habbo or somewhere else?*
GD2: *Well, in Habbo and on the users', those, fansites.*

Well, those fansites are really important, of course. There things are said quite frankly. Then there are some e-mails directly from the users, though I never reply to them. Sometimes I followed the feedback e-mails and the bug e-mails some many years ago, and then directly from friend-users I get [feedback]. But if I want to know how some new feature is liked, then I go and look at the fansite forums. Of course, they are always a little over-critical. (Game Developer 6)

The first quote (GD1) shows how the developer feels a responsibility to check out the fansites: it is as if they are part of the job. The second quote (GD2) gives an example of the immediacy of the fansite feedback, while the third quote (GD6) shows a brief comparison of feedback sources in favor of the fansites. Some more active fansite readers among the developers send e-mails to the other developers about interesting articles.

Well, actually, to be totally honest, what always gets me to surf there is usually that [one developer], or somebody else who follows them actively, sends a link that "Here is something funny." Then I usually go and look, but I don't remember when I last would have gone looking just myself. (Game Developer 4)

This quote (GD4) shows how one of the developers lets another developer act as a mediator to the fansites. Some developers, who are eager to get responses on what they have created, visit the fansites regularly, especially after new Habbo releases, when the users discuss the new features.

Well, it is probably a bias towards the final stage of the release, when something comes out, one can see if there is something new about it. But yes, every now and then when, when there is a pause or moment that I don't have anything terribly urgent, then I can go and peek at them. (Game Developer 9)

One developer describes how the fansites can influence the development of new features: *"The fansites are worth gold. From them, one can see what they expect and what they, on the other hand, what they don't expect, and then one can do that too"* (Game Developer 3).

This is worth underscoring. Because the fansites are "out there" without developer intervention, the discussion topics are not limited to specific questions from the developers'

side: They are rather fairly open-ended. The above quote (GD3) shows how this enables the developers to learn about what the fansite writers expect, but also what they do not expect.

Not all developers have equal interests in the fansites, often because of their different work tasks. Server developers are furthest away from the users, whereas client developers and graphic designers are closer to the users. This can be seen as shaping their interests in fansites as well, allowing, of course, for individual differences. One developer described the graphic designers' interest in fansites: *"When a graphic designer designs a new [Habbo] space, s/he[7] is extremely interested in how the users receive it. And because of that s/he surfs on the fansites and discussion forums to find out what's said about it"* (Game Developer 4).

However, another developer stated that the fansites do not provide reliable user knowledge. *"From there [the fansites] one doesn't get real knowledge [about user opinions]. But [by] going into the [guest] rooms, one gets better [knowledge]"* (Game Developer 8).

This developer was concerned that the fansites do not provide representative user feedback. He continues by discussing the user groups visible through the fansite, and coins a category "average user." This is interesting because the average user seems to have an effect on the boundaries of the other target user groups.

THE "AVERAGE USER"

In design guidelines, the category "average user" is mainly used in two ways. On the one hand, it is contrasted with more technically skilled developers, suggesting that developers should remember not to assume too much technical competence among most of the users (Spillers, 2006). On the other hand, in HCI literature a common phrase is, "There's no such thing as an average user" (Budde, 2004, p. 54), which can be seen as a warning against reducing identities, practices, and tastes into too abstract user needs. Abstract user needs that are not grounded in particular settings might harmfully shape a design into something that nobody can identify with (Cooper & Reimann, 2003). However, in my empirical data, yet another aspect of the average user has emerged, which is not about the technical skill of developers or average users, nor about statistical methods to advocate a representative user (Muller, Millen, & Strohecker, 2001). In my analysis, the average user is used in relation to other user groups, not developers. By analyzing the following quote, one can better understand the complexities of categorization practices in design for complex and heterogeneous communities:

> *If one goes to the [guest] rooms ... then one gets feedback from the* average user. *But in the forums, the users have used Habbo Hotel for a longer time and slightly grown out of it [Habbo] and they have moved on to the forums to discuss it. There are the [furniture] collectors, the older ones, and the other HC [Habbo Club] users.... I have the impression that the opinions are not that black and white among* normal users. *In the forums everything is either extremely great or then it really sucks.* (Game Developer 8).

I started the analysis by reading what was stated by the developers about the average user category, and then what this category's relation was to the other mentioned categories. In the

above text fragment, the average user concept is used twice[8], first to state that the average user rarely writes in the fansite forums, and then that they have more nuanced opinions than those expressed in the fansite forums. However, the reason for talking about the average user emerges by reading the whole paragraph. The function of the average user in this text is to contrast them with other mentioned user categories: furniture collectors, older users, and Habbo Club users. So, actually the average user cannot be taken literally, since the developer is not talking strictly about the average user of the whole Habbo population, but about the users who are not opinionated furniture collectors, older, or Habbo Club users. This interpretation is supported by the change to talk about "normal" users.

Based on his experience, this game developer feels there is a large group of users whose opinions do not get voiced in the fansite forums. Still, he feels it is important to include them in the design considerations. The problem is that since they are not so opinionated, they are hard to reach easily, and not much is known about them. Even though the group is probably as heterogeneous as any other user group, it is difficult to distinguish the subgroups. Therefore they are grouped together as the average user.

Why the name "average user"? One interpretation is that it implies large masses of users; as the developers want to please as many users as they can, the "average users" get more emphasis than other more marginal (although well seen and heard) user groups. The designer not only describes the user groups, but also actively constructs and configures the user groups in his speech, while reflecting on the constructed user groups that have influenced his earlier actions. He actively speaks for some users, and devalues other users, who in his perspective can and do speak for themselves.

User Feedback Seen as Reflected and Refracted By Fansites

In this section, the users' voices and the developer from the previous quote will be visualized through three simple sketches. Although the first drawing is problematic, it assists the understanding of the second, as it makes it possible to contrast and compare the two drawings. This comparison brings forth qualities of the average user that elaborates on the previous analysis.

Physics is a source for inspiration to understand social relations: think of attraction and repulsion, for instance. When retheorizing relationality, gender researchers have criticized reflection and refraction as useful optical metaphors, and turned to diffraction and interference as more promising candidates (Barad, 2003). In this article, to illustrate the user–developer dialogue described above, I will follow the same reasoning. Inspired by reflection and refraction, I draw as Figure 3 an image of the user–developer dialogue through the fansites, criticize it, and come up with a more useful visualization. Figure 3 shows how voices (the waves in the image) of different user groups become either reflected or refracted by the fansites. The image succeeds in showing that not all users get their voices heard on the fansites.
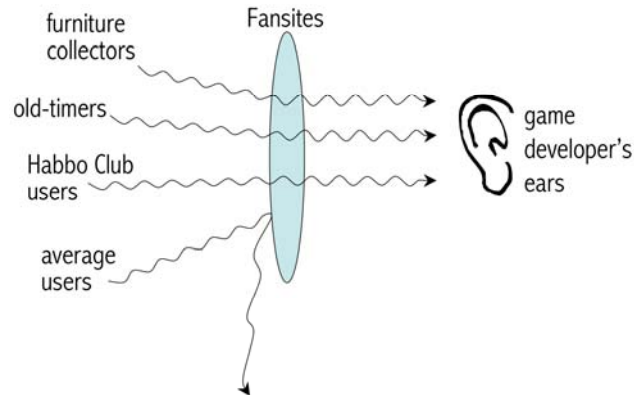
Figure 3. Drawing displaying user feedback that is reflected (average users) and refracted (furniture collectors, old-timers, Habbo Club users). The drawing illustrates that not all users get their voices heard on the fansites, but its lack of dynamics is problematic.

However, the metaphors of reflection and refraction have their limitations. First, the average user gets the same ontological status as the other user groups. This is wrong, because it is not possible to observe an average user: One can only observe particulars, whereas the "average" is an abstraction. Also, this drawing is not dynamic; there is more going on in the text fragment. Both the game developer and the average user are more active, yet their agencies are rather absent in this drawing.

Of course the furniture collectors are a constructed and heterogeneous group, since there are probably many different reasons for collecting furniture. The point is that, except for the average user, the defined groups have a fairly clear "shape." They can be located in user practices. But the average user is somehow more open, and not so stable or well defined as the other groups. It is as if the term average user becomes a placeholder for the unknown users.

"Configuring" the User Groups

The second visualization is based on the form of a comic strip. I tried to make one drawing of diffraction, but it was difficult to get a single image dynamic enough. As I started drawing several images in a row, the whole changed, and the optical metaphors became deemphasized. However, the qualities associated with diffraction (interaction, interference, reinforcement, difference) are present in Figure 4, which presents a more dynamic illustration of the user–developer dialogue through the fansites.

The first panel shows some of the user groups on the fansites. In the second panel, the developer discusses the user groups that get voiced on the fansites. The next panel shows the developer creating the "average user," which in the final panel dominates the other user groups. In this comic strip, the active role (agency) of both the game developer and the average user become visible, and the rigidity of Figure 3 is swept away.

Making the average user bold and larger than the other user groups in the fourth panel symbolizes the work the category does. Even though the average user is fairly shapeless and unknown, it seems to direct the design. The developer wants to design for the average users rather than pay much attention to what the opinionated user groups write in the fansite forums. Creating the average user concept is a way of legitimizing this. Using the average user

143
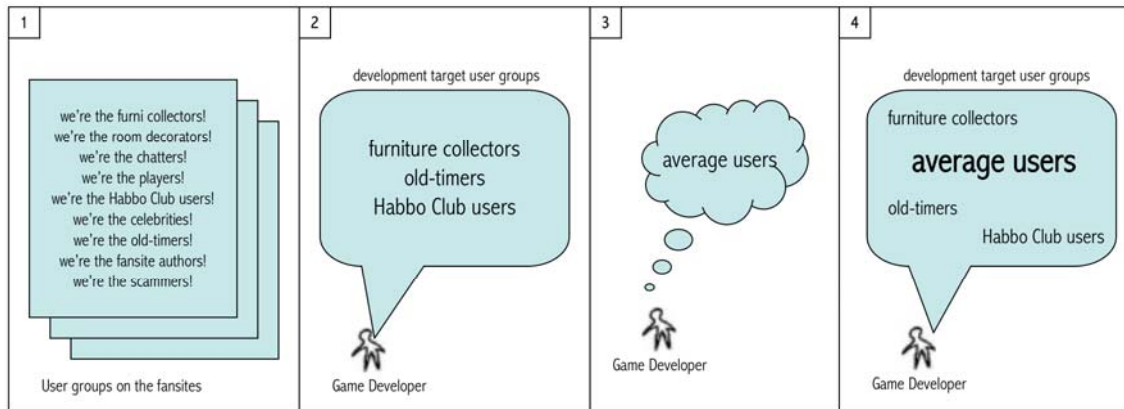
Figure 4. Configuring the users. The first panel shows the user groups on the fansites that the developer is very familiar with. Panels 2-4 show how the developer, in his discussion of the user groups that get voiced on the fansite forums, creates the concept of the "average user," which then dominates the user groups in design talk/practices. The developer interacts with the user groups and reinforces a group in favor of others. The resulting target user group constellation is not a mere displacement of panel 2, but show the difference that matters in the subsequent design considerations.

in connection to the fansite forums (referring to the users not writing there) also leaves room for more representative user feedback from other sources. Yet another reason for leaving the average user shapeless is perhaps to allow and give room for new designs. Had the average user been completely defined, there would not be room for creativity.

To sum up, the category "average user" cannot be taken literally. It gets its meanings in relation to the other categories defined and mentioned. These categories are different, as they are locatable in user practices, while the average user is not. Furthermore, the categories are shaped or configured by the developer, to fit his aims. At the same time, these configured categories shape the developer, as they keep the design space open. This second element, however, is still missing from Figure 4. To change Figure 4 from a rhetorical drawing towards a description of the co-construction of the developers as well, the transformed developer needs to be visually marked as well. Figure 5 is an attempt at visualizing this by fading out bars in front of the developer. The bars represent design obstacles that are mitigated as the designer speaks.
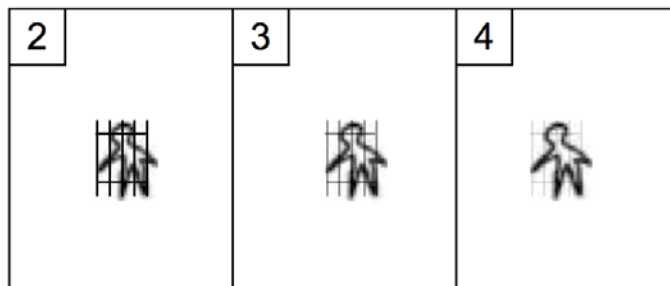
Figure 5. Visualizing the "configured" developer as well. The fading bars in front of the developer represent design obstacles that are mitigated as the designer speaks. The numbering of the panels start 2, as it refers to the first panel where the developer is visible in the panel series of Figure 4.

Now, that the "average user" has been unscrambled, this paper will conclude by zooming out from this particular situation and this particular developer. This analysis is related to the other Sulake developers' ways of speaking about the users.

HOW FAR DOES THE "AVERAGE USER" REACH?

How far does the agency of the average user reach? Do all designers at Sulake talk about the average user? Does it shape other different representations of the user? When reviewing my interviews with the designers other than GD8, I did not find exactly the same configured actor of "average user": The others did not talk about the average user as such. However, when considering the different aspects of the average user, I found similar configurations, such as the "typical user" and the "normal user." One developer discussed the importance of fixing problems for certain users, favoring the normal user over trouble-causing users. *"It is perhaps less important... if they [the troublemakers] get some problems from causing problems to other users. Then it is not necessarily as serious as when the normal user gets problems from using Habbo normally"* (Game Developer 7).

Here, *normal* again designates everybody else, except for the troublemakers. The category "normal users" is not locatable in user practices, while the trouble-causers are. This developer also shapes the categories, giving the normal users a higher priority than the troublemakers. At the same time, these categories shape the developers' actions, freeing the developer to design for the normal use, instead of the exceptional and generally not desired use.

Another developer discussed a "typical user" when asked whether enough is known or not about the users.

> GD9: *...but, when we think about a new big feature... we should know how large a group, or how large the number is, absolutely, who would use it then. Another thing is that we don't really know how lasting they [the groups] are, that for how long-term one can design something.... So the user, the typical user, is still a little bit hazy at this time.*
>
> A: *The typical user isn't visible in the forums or the statistics?*
>
> GD9: *It isn't visible anywhere. Some kind of an age group exists and the boy-girl distribution is fairly clear, but [these] are limited to terribly high-level things.*

On this occasion, *typical user* became a category for the unknown, but perhaps also a wish for regular use patterns. In contrast to the previous quotes, this typical user did not free the developer to do something else, but stayed as an obstacle for design.

Creativity in the Developer–User Dialogue

While the shapeless average user leaves room for the creativity of the designers, the designers are also careful not to restrict the users in their design. Designing for open-ended use leaves room for creativity among the users. This has been possible due to the kind of product Habbo is: a software product that can be frequently updated without requiring the user to do

anything. The Habbo development process started out with very frequent release cycles. Even though the product was on-line, during the first year it was continuously updated, sometimes several times a week. Gradually the development process became more complex, as the product grew and more people were involved. A developer describes the transformation from on-line prototyping to robust release processes as follows:

> Kultakala *was done very, very quickly, in a fairly, so to speak, feeling-based way, or, organically. It was up; then we started to fix it, or develop it.... Today we talk about totally different numbers of users, amounts of money. We simply can't afford to have [a situation where], in tens of countries around the world, everything would stop.* (Game Developer 1)

This on-line prototyping stage gave the users lots of space to explore the design and take advantages of things not yet considered by the developers. One famous bug that turned into a feature was a way to lift things up in the room and leave them floating. It was possible because the world model was not that well thought through in the early days. Lifting up furniture can seem harmless, but as a piece of furniture is moved out of reach, it becomes a way of destroying furniture. That is a serious threat to the world model and also the business of selling virtual furniture. One developer explained how this user creativity influenced the world model:

> *"You can put things on a table, and tables have a height. But then, we hadn't programmed that kind of a model; so that when you took the table away, the thing [on the table] stayed in the air. From this followed that the users lifted up furniture with the aid of two stackable objects, by rotating them in peculiar ways. Other people's things [were lifted] over that box, so high in that room that [they] moved up over the upper edge of the room, which made them gone in practice; they were destroyed. Then we had to make a limit, so no thing could rise up more than to the height of three or something.* (Game Developer 1)

Some features were developed for a certain use, but the users were able to use the features in their own way to create unexpected phenomena. The teleport is perhaps the prime example, as one developer described it:

> We had the idea that, we thought the users would start creating homes: There would be a bedroom and a kitchen and that they would jump between these with the teleports, a kind of a door metaphor to the rooms. But they [the users] are much more inventive than we: They made up all those teleport racing games. ... There is this room, two teleports, and two users start running and who comes back first from the other teleport, they must run a race following a route.... And perhaps the first thing that emerged with teleports was the teleport centers, a whole room filled with teleports leading somewhere else, so it was quite a "wow" effect when I first saw it, so "Oh, they did it like that!" We hadn't thought about someone building link-places for everyone else.* (Game Developer 3)

On several occasions, many developers tried not to restrict the user too much. GD3 stated that he expects the users to do "*unexpected things*" with the features he develops, while GD4 noted that, "*We create the environment and the building blocks, letting the users exercise their own creativity.*" Clearly there is an affinity between the *average user* of one developer and the *user* in other developers' speech. In addition, two particular configurations seemed to be widely known, stabilized, and discussed among the original developers.

First, there is the "Easy access, easy play" maxim: The users should be guided step by step into the game environment, without letting any step be too large. One developer explained it like this:"*[The] easiest possible login, you can create an character, basic navigation... the first contact to another user, first friend on the friends-list, all sorts of playing, then the own room and decoration, then various groups that you gradually join*" (Game Developer 2).

Second, there is the "Where else?" maxim: New feature developments in Habbo should be unique and personal. If something exists on some other site already, copying it directly to Habbo is not an option.

> We have always regarded those [simple feature requests] critically. We want an intentional pursuit for something special in these cases. We don't make the obvious choices but rather something personal that gives the Habbo world oddity and its own thing, creates its own such persona. (Game Developer 2)

This maxim was also called the "Habbo Way" by some developers. However, the "Habbo Way" also denotes the rules listed on the official Web site that new users should approve when becoming habbos.

Mixing "I-methodology" and Feedback on Experience

Akrich (1992, 1995) argued that successful artifacts depend on the ability of developers to generate user representations and integrate them into their design. She observed many different techniques for creating user representations, both explicit and implicit. The explicit techniques included market surveys and consumer testing, whereas the implicit were the I-methodology, experts, and other products. The term *I-methodology* exists when the designer puts him/herself in the position of the user and uses his/her own knowledge as a base for design.

On the one hand, the concept of the average user could be seen as manifesting Akrich's I-methodology: When things are uncertain, the designers go with their intuition or feelings based on their own experiences. On the other hand, their knowledge seems to be grounded in their proximity to the users: They can go and look at what's happening in the hotel and they can read the fansites. The fansites give the developers a way of getting a feeling for what the users want by reading between the lines, as a developer said when reflecting on how often he visits the fansites and which fansites he follows:

> It depends on the situation. It might be a week or two that you don't have the time because you know that you'd become immersed totally in the wrong way. It's HabboForum ... and of course these Finnish ones, from them it is even easier to

see between the lines the feeling, as they are domestic users: There's no language [problems] .... (Game Developer 5)

The developers draw on their cumulative experience, as they were the users themselves in the early Habbo days, and they have been there since. One developer reflected on the developers' way of knowing the design history, compared to most users who have not been there as long:

An active user probably thinks about it [a new feature: rollers]—this is totally speculation—probably thinks about it in the context of his/her own rooms, what s/he has done so far and how could these [rollers] fit into that, reflecting on when you add a new thing, what more can it give. Whereas we think about it from a little broader perspective—where these and these phenomena have emerged previously and they were based on the teleport, and the dice and these, then reflecting on what if the roller is brought in, what could one do with it, from a different perspective but still.... (Game Developer 4)

As a consequence, here in the Habbo case, it becomes hard to tell the difference between I-methodology and feedback from use, since the designers' reflections repeatedly refer to feedback from experience of use over time. Those who follow the fansites and the activities in the hotel appear as legitimate representatives for the users. The designers balance being representatives for the users, for the business, and for their own interests.

DISCUSSION

As a usability designer and researcher, I have been taught that one should never design for the average user. Doing so would probably result in a design that does not fit anyone, because the users are always a heterogeneous group. My first reaction when the game developer started discussing the average user was to shut my ears because it did not make sense. The use of the term average user seemed to contradict HCI guidelines, such as "know the user" or "define the user groups." It seemed like the user opinions at hand were not followed, and the developer designed for the unknown average user. However, by using a membership categories analysis and extending the timeframe of the analysis, I realized that my initial reaction was wrong.

When considering the development history and the developer's experience of feedback from use, it made more sense to see the developer as a representative of the silent majority of the users. The developer brought in the users who did not voice themselves and denoted them by the category "average user." In this way, he accomplished his goal of not having to strictly follow the immediate user feedback, which may not reflect the opinions of the majority of silent users, but he also accomplished his goal of considering the previous user feedback based on his experience.

The rhetoric about the silent majority and the user is familiar from other contexts, for instance, in politics. The politicians often argue that they themselves represent the (mythical) citizen and give voice to the silent majority of voters. This might, or might not, be the case; it depends on the politician's own agenda and its proximity to that of the voters. While the citizen

as a concept decontextualizes individual human beings, it also makes it possible to talk about the broader concepts of the rights of citizens and human rights. It appears that the concept of the user works in a similar way, giving developers a way of discussing possibilities and restrictions for all users (e.g., in terms of user access rights, user profiles, and groups visible to the computer system). In addition, as some citizens need more empowerment than others, so do some user groups. In this case study, the "average user" was not literally the average user of the Habbo population, but denoted those who needed to be voiced.

This study on the developer–user dialogue highlights the importance of the fansites as one user proxy for the Habbo developers. In this case, rather than describing developers as "malevolent manipulators of users," the case points out their role in balancing and governing different user interests. Digging into the practices of design brings forth its complexity and shows how design and use are intertwined. Over time, the knowledge of the designers is not easily separable into "own" knowledge versus feedback from use, as design and use knowledge becomes mixed.

The results of this study can be generalized to user categorization practices in the design of other heterogeneous and complex virtual worlds and communities. If the product or service becomes a commercial success, the sheer number of users makes the user categorization and control more difficult. Designers have to invent categorization strategies of coping with complexity: Fuzzy user configurations can work if there is frequent interaction between designers and users. The virtual world itself and the discussion arenas around the product are important sites for designer–user interaction and sources of user knowledge. Besides, as a company grows, the role of the user representations in the internal communication increases, since not everyone in the company can be tightly involved with the user communities. Implicit user representations, such as gut feelings and design intuition based on long-time experience with users, might need to be made more explicit to function as convincing arguments.

Finally, a small comment to the game developers who might ask what they can do about the situation where some user groups are not visible through the monitored fansites. Of course, keeping up with other user feedback channels, like spending time in the virtual world, is important. Another option is to find fansites that attract different user groups. In the Finnish Habbo fansite scene, for instance, the former official fansite Nefekala used to attract a younger age group and many girls. Even though this particular fansite does not exist anymore, new fansites seem to emerge all the time. Following a variety of fansites allows for more diverse user feedback, which can ground the gut feelings of the designers.

ENDNOTES

1. *Habbos* are what the Habbo Hotel visitors are commonly called. One becomes a habbo when checking in at the virtual hotel for the first time, then creates one's own cartoon-like on-line character (avatar).
2. The standard definition of the user as a "person who interacts with the interactive system" (ISO, 2006, p. 3) leaves it open for the researchers and practitioners to contextually agree on whether the user is understood as particular human beings in particular settings, or target groups imagined by the developers. Standard context of use models (ISO, 1998) on the other hand, provide listings of potentially relevant relations: goals, tasks, equipment, and the physical and social environments.

3. Details available at http://mc2.soberit.hut.fi
4. For an introduction to the initial differences, and later convergence and extensions to the social shaping versus the social construction of technology approaches, see Sørensen (2002).
5. Images used with permission. ©2006 Sulake Corporation Ltd. HABBO, HABBO HOTEL, SULAKE and associated logos are trademarks or registered trademarks of Sulake Corporation Ltd. in the U.S., the European Union, China and various other jurisdictions. All rights reserved.
6. I left the more exact job description out for anonymity reasons.
7. In Finnish, the *hän* pronoun is not gender specific and stands for he or she.
8. Actually once, but I interpret *normal* as a qualitative version of the more statistical *average* and analyze them together.

REFERENCES

Agre, P. (1995). Conceptions of the user in computer systems design. In P. J. Thomas (Ed.), *The social and interactional dimensions of human-computer interfaces* (67–106). Cambridge, MA, USA: Cambridge University Press.

Akrich, M. (1992). The de-scription of technical objects. In W. E. Bijker & J. Law (Eds.), *Shaping technology/building society* (pp. 205–224). Cambridge, MA, USA: MIT Press.

Akrich, M. (1995). User representations: Practices, methods and sociology. In A. Rip, T. J. Misa, & J. Schot (Eds.), *Managing technology in society* (pp. 167–184). London: Pinter Publishers.

Akrich, M., & Latour, B. (1992). A summary of a convenient vocabulary for the semiotics of human and nonhuman assemblies. In W. E. Bijker & J. Law (Eds.), *Shaping technology/building society* (pp. 259–264). Cambridge, MA, USA: MIT Press.

Andersen, P. B. (1999). Elastic interfaces: Maritime instrumentation as an example. In J. M. Hoc, P. Millot, E. Hollnagel, & P. C. Cacciabue (Eds.), *Proceedings of the 7th Conference on Cognitive Science Approaches to Process Control* (CSAPC'99; pp. 35-41). Valenciennes, France: Presses Universitaires de Valenciennes.

Baker, C. (2004). Membership categorization and interview accounts. In D. Silverman (Ed.), *Qualitative research: Theory, methods and practice* (pp. 162 –176). London: SAGE.

Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs: Journal of Women in Culture and Society, 28*, 801–831.

Beyer, H., & Holtzblatt K. (1998). *Contextual design: Defining customer-centered systems*. San Francisco: Morgan Kaufmann.

Bijker, W. E., Hughes, T. P., & Pinch, T. (1987). *The social construction of technological systems: New directions in the sociology and history of technology*. Cambridge, MA, USA: MIT Press.

Blythe, M., Overbeeke, K., Monk, A., & Wright, P. (2003). *Funology: From usability to enjoyment*. Amsterdam: Kluwer.

Bødker, S. (1998). Understanding representations in design. *Human Computer Interaction*, *13*, 107–125.

Bødker, S., Ehn, P., Kyng, M., Kammersgaard, J., & Sundblad, Y. (1987). A utopian experience: On design of powerful computer-based tools for skilled graphic workers. In G. Bjerknes, P. Ehn, & M. Kyng (Eds.), *Computers and democracy* (pp. 251–278). Aldershot, UK: Avebury.

Budde, N. F. (2004). There's no such thing as an "average" user. *Interactions*, *11*(2), 54.

Carmel, E., Whitaker, R. D., & George, J. F. (1993). PD and joint application design: A transatlantic comparison. *Communications of the ACM, 36*(6), 40–48.

Checkland, P., & Scholes, J. (1981). *Soft-systems methodology in action*. Chichester, UK: John Wiley & Sons.

Cooper, A., & Reimann, R. (2003). *About Face 2.0: The essentials of interaction design*. Indianapolis, IN, USA: Wiley Publishing, Inc.

Courage, C., & Baxter, K. (2005). *Understanding your users: A practical guide to user requirements methods, tools, and techniques*. Amsterdam: Morgan Kaufmann.

Dagwell, R., & Weber, R. (1983). System designers' user models: A comparative study and methodological critique. *Communications of the ACM, 26*, 987–997.

Ehn, P. (1988). *Work-oriented design of computer artifacts*. Stockholm, Sweden: Arbetslivscentrum.

Friedman, A. L., & Cornford. D. S. (1989). *Computer systems development: History, organization and implementation*. Chichester, UK: John Wiley & Sons.

Greenbaum, J., & Kyng, M. (1991) *Design at work: cooperative design of computer systems*. Hillsdale, NJ, USA: Lawrence Erlbaum Associates Publishers.

Grudin, J. (1993). Interface: An evolving concept. *Communications of the ACM, 36*(4), 110–119.

Hackos, J. T., & Redish, J. C. (1998). *User and task analysis for interface design*. New York: Wiley.

Hales, M. (1994). Where are designers? Styles of design practice, objects of design and views of users in CSCW. In D. Rosenberg & C. Hutchinson (Eds.), *Design issues in CSCW* (pp. 151–178). London: Springer-Verlag.

Hyysalo, S. (2004). *Uses of innovation: Wristcare in the practices of engineers and elderly*. Helsinki, Finland: Helsinki University Press.

International Organization for Standardization [ISO]. (1998, March). *Ergonomic requirements for office work with visual display terminals, Part 11: Guidance on Usability*. (Standards No. 9241-11). Geneva, Switzerland: ISO.

International Organization for Standardization [ISO]. (1999, June). *Human-Centred Design Processes for Interactive Systems*. (Standards No. 13407). Geneva, Switzerland: ISO.

International Organization for Standardization [ISO]. (2006, April). *Ergonomic requirements for office work with visual display terminals, Part 110: Dialogue principles*. (Standards No. 9241-110). Geneva, Switzerland: ISO.

Isomäki, H. (2002). *The prevailing conceptions of the human being in information systems development: System designers' reflections*. (Doctoral thesis, University of Tampere). Tampere, Finland: University of Tampere.

Johnson, M. (2006a, March). *Uses of history in the design of Habbo Hotel*. Paper presented at the Proact2006 Conference: Innovation pressure; Rethinking competitiveness, policy and the society in a globalised economy, Tampere, Finland.

Johnson, M. (2006b, March). *Categorising users in the design of Habbo Hotel*. Paper presented at the Proact2006 Conference: Innovation pressure; Rethinking competitiveness, policy and the society in a globalised economy, Tampere, Finland.

Johnson, M. (2006c, May). *Visiotypes in the membership categorisation practices of Habbo Hotel*. Presentation made at the Public Imageries Today conference, co-organized by the Finnish Museum for Photography and the New Media School, Karlsruhe, Germany.

Johnson, M., & Toiskallio, K. (2005, August). *Fansites as sources for user research: Case Habbo Hotel*. Paper presented at the 28th Information Systems Research Seminar in Scandinavia (IRIS´28), Kristiansand, Norway.

Johnson, M., & Toiskallio, K. (in press) "Who are the Habbo Hotel users?" In M. Turpeinen (Ed.), *Mobile content communities final report*. Helsinki, Finland: Helsinki Institute for Information Technology.

Kay, A., & Goldberg. A. (1977). Personal dynamic media. *Computer, 10*(3), 31–41.

Kling, R., & Gerson, E. M. (1977). The social dynamics of technical innovation in the computing world. *Symbolic Interaction, 1*(1), 132–146.

Kuniavsky, M. (2005). *Observing the user experience: A practitioner's guide to user research*. San Francisco: Morgan Kaufmann.

Kuutti, K. (2001). *Hunting for the lost user: From sources of errors to active actors and beyond*. Cultural Usability seminar, Media Lab, University of Art and Design Helsinki. Retrieved December 31, 2006, from http://www.mlab.uiah.fi/culturalusability/papers/Kuutti_paper.html

Lamb, R., & Kling, R. (2003). Reconceptualizing users as social actors in information systems research. *MIS Quarterly*, *27*, 197–235.

Latour, B. (1992). Where are the missing masses? The sociology of a few mundane artifacts. In W. E. Bijker & J. Law (Eds.), *Shaping technology/building society* (pp. 225–258). Cambridge, MA, USA: MIT Press.

Laukkanen, T. (2005). *Modding scenes: Introduction to user-created content in computer gaming* (Hypermedia Laboratory Net Series, 9). Tampere, Finland: Tampere University Press.

Lee, A. S., Liebenau, J., & DeGross, J. (1997). *Information systems and qualitative research*. London: Chapman & Hall.

Mackay, H., Carne, C., Beynon-Davies, P., & Tudhope, D. (2000). Reconfiguring the user: Using rapid application development. *Social Studies of Science*, *30*, 737–757.

MacKenzie, D., & Wajcman, J. (Eds.). (1985). *The social shaping of technology: How the refrigerator got its hum*. Milton Keynes, UK: Open University Press.

Maguire, M. (2001). Context of use within usability activities. *International Journal of Human-Computer Studies*, *55*, 453–483.

Mørch, A. I. (1997). *Method and tools for tailoring of object-oriented applications: An evolving artifacts approach*. Unpublished doctoral dissertation, University of Oslo, Norway.

Muller, M., Millen, D. R., & Strohecker, C. (2001). What makes a representative user representative? A Participatory Poster. In M. (Mantei) Tremaine (Ed.), *CHI '01 Extended abstracts on human factors in computing systems* (pp. 101–102). New York: ACM.

Mumford, E. (1983). *Designing human systems for new technology: The ETHICS approach*. Manchester, UK: Manchester Business School.

Nardi, B. (1993). *A small matter of programming: Perspectives on end user computing*. Cambridge, MA, USA: MIT Press.

Norman, D. (1988). *The psychology of everyday things*. New York: Basic Books.

Norman, D., & Draper, S. (1986). *User centered system design: New perspectives on human-computer interaction*. Hillsdale, NJ, USA: Lawrence Erlbaum Associates.

Nurminen, M. I. (1988). *People or computers: Three ways of looking at information systems*. Lund, Sweden: Studentlitteratur & Chartwell-Bratt.

Oudshoorn, N., & Pinch, T. (2003). *How users matter: The co-construction of users and technologies*. Cambridge, MA, USA: MIT Press.

Porter, C. E. (2004). A typology of virtual communities: A multi-disciplinary foundation for future research. *Journal of Computer-Mediated Communication*, *10*(1). Retrieved on December 31, 2006 from http://jcmc.indiana.edu/vol10/issue1/porter.html

Schuler, D., & Namioka, A. (1993). *Participatory design: Principles and practices*. Mahwah, NJ, USA: Lawrence Erlbaum Associates.

Shneiderman, B. (1998). *Designing the user interface*. Reading, MA, USA: Addison-Wesley.

Silverman, D. (2004). *Qualitative research: Theory, method and practice*. London: Sage.

Sørensen, K. H. (2002). Social shaping on the move. In K. H. Sørensen & R. Williams (Eds.), *Shaping technology, guiding policy: Concepts, spaces and tools* (pp. 19–35). Cheltenham, UK: Edward Elgar.

Spillers, F. (2006). Designing for the "average user". Retrieved from the April 21, 2006 blog *Demystifying Usability* (www.usabilitydiary.com) on December 31, 2006, http://experiencedynamics.blogs.com/site_search_usability/2006/04/designing_for_t.html

Stewart, J., & Williams, R. (2005). The wrong trousers? Beyond the design fallacy: Social learning and the user. Reprinted in D. Howcroft & E. Trauth (Eds.), *Handbook of critical information systems research: Theory and application* (pp. 195–221). Cheltenham, UK: Edward Elgar.

Suchman, L. (1995). Making work visible. *Communication of the ACM, 38*(9), 56–61, 63-64.

Sulake (2006a). Habbo Hotel. Retrieved December 31, 2006, from http://www.habbohotel.co.uk/

Sulake (2006b). Press Room, Press Releases. Retrieved December 31, 2006, from http://www.sulake.fi/pressroom.html

Thomas, P. J. (Ed.). (1995). *The social and interactional dimensions of human-computer interfaces*. Cambridge, UK: Cambridge University Press.

Toiskallio, K., Tamminen, S., Korpilahti, H., Hari, S., & Nieminen, M. (2004). *Mobiilit Käyttökontekstit: Mobix Loppuraportti* [Mobile contexts of use: Mobix final report]. (Technical report HUT-SoberIT-C8). Helsinki, Finland: Software Business and Engineering Institute.

Turpeinen, M. & Kuikkaniemi, K. (Eds.). (2007). *Mobile content communities final report*. (HIIT Publications 2007-1). Helsinki, Finland: Helsinki Institute for Information Technology.

Westrup, C. (1997). Constituting users in requirements techniques. In A. S. Lee, J. Liebenau, & J. I. DeGross (Eds.), *Information systems and qualitative research* (pp. 183–204). London: Chapman & Hall.

Williams, R., Stewart, J., & Slack, R. (2005). *Social learning in technological innovation: Experimenting with information and communication technologies*. Cheltenham, UK: Edvard Elgar.

Woolgar, S. (1991). Configuring the user: The case of usability trials. In J. Law (Ed.), *A sociology of monsters: Essays on power, technology and domination* (pp. 57–102). London: Routledge.

Yin, R. K. (1994). *Case study research, design and methods* (2nd ed.). Newbury Park, CA, USA: Sage Publications.

Author's Note

All correspondence should be addressed to:
Mikael Johnson
Helsinki Institute for Information Technology
PO Box 9800
02015 TKK
mikael.johnson@hiit.fi