The Virtuality of Virtual Worlds, or What We Can Learn from Playacting Horse Girls and Marginalized Developers

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This article discusses the emergence of Habbo Hotel as a large-scale virtual world and its changing versions through time. We consider how social events taking place within the hotel are conditioned by designed-in symbolic resources and how, in turn, with creative processes of symbolization, novel social objects emerge out of particular interactions. We then discuss how the membership trajectories of hotel members are essential in understanding how these interactions are shaped and evolve. We also look at how the digital infrastructure and its evolution lends itself to being material for actualizing particular social worlds within the hotel and how the trajectory of the infrastructure reflects the relationship between the user and the developer communities of Habbo. Finally, we discuss why, to understand more fully what virtual worlds consist of at large, analysts should look into the mutually constitutive interactions among users, developers, and surrounding business models over longer periods of time in the constantly varying actualization of any given virtual world.
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To understand computer-mediated communication, it should be of obvious importance to decipher how computed environments come to mediate communication and hence what constitutes their "virtual" character. Most research on virtual worlds

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has sought to provide answers to these and related questions by focusing on characteristic features of virtual worlds such as their architecture, digitality, communication patterns, functionalities, narrative structures, gaming qualities, and parallel places in the real world. Yet empirically speaking, any one of these characteristics alone appears to offer an important condition rather than a defining factor for the often complexly mediated action and communication that takes place in virtual worlds.

This case is roughly analogous to the state of mainstream social and behavioral science concerning the "real" world some decades ago when complex social phenomena were explained by sophisticated but rather reductionist explanatory models. The pioneers of symbolic interactionism then lamented the mainstream's neglect of social interaction and interpretation of action as the primary sources of meaning and emergence of social objects (e.g., Mead 1964; Blumer 1986). The present-day research on virtual worlds lacks consideration of the complex interplay among different actants, actors, and processes that constitute a virtual world. There are few studies—none to our knowledge—that have sought the answers to what virtual worlds are by tracing how the lines of action of different people and nonhuman actors are fitted together.

This condition presents another classical concern of symbolic interactionism, namely, do we really know that the "usual suspects" for the constitution of virtuality are sole and sufficient source of their existence and to the way they mediate human action and interaction (Clarke and Star 2007)? Some actors that at first glance do not appear consequential to the construction of virtuality may on closer inquiry prove so. Take, for example, the horse aficionados in Habbo, a virtual world with 135 million registered users and visited monthly by 15 million unique users worldwide.[1] These horse fans, mostly young girls ages nine to fourteen, have turned the relatively uniform humanlike avatars available in Habbo into virtual horses and riders, virtual hotel rooms into stables, and virtual rugs into grass, and they do all sorts of things that one can imaginatively enact with such arrangements. In doing so, they draw from cultural and social resources not limited to, but just as importantly augmented by, the design of Habbo, by Sulake Corporation Oy. In this, they are among a large number of individuals who log in to their rooms every day and start acting out a hotel with friends, online acquaintances, and strangers met there. The hotel of course is designed by Sulake, but it was hardly purposefully designed for playing virtual stables. In fact, what Sulake has been designing has changed dramatically over the years, as the graphical chat room the founders built for their friends as a hangout began to take a (teenie) life of its own and began to include people like teenage virtual capitalists, within-virtual-world movements, concerned parents, and youth workers, as well as corporate interests and increasingly difficult demands for means of navigation and networking. The activities of playacting horse girls and many other groups have, as we detail below, added new facets and even *layers of virtuality* to the hotel.[2]

Gaining a better grasp of these dynamics of how interactions in virtual environments contribute to their evolution is also timely on account of the transformation that their functions and design are presently undergoing. New digital environments

such as Habbo have their historical roots in the development of technologies capable of performing action at a distance and representing different actors simultaneously in one place. The first text-based games for more than a handful of players, MUD and its descendants, were developed in the late 1970s. Computer-mediated communication was transformed in the 1980s and 1990s as chat worlds became graphical, starting with Habitat. By the turn of the century, virtual worlds such as Ultima Online, Lineage, and EverQuest had collected about a million users all told, and now visits to Second Life, World of Warcraft, Gaia Online, Habbo, and so forth have turned into mainstream activities (Bartle 2003; Castronova 2005; Kzero 2009). These digital spaces have increasingly begun to blend with other social media, and, consequently, visitors to Habbo Hotel themselves debate whether it is a game, a chat, or something else. In their press releases, the developers of Habbo have called it a virtual world, a social networking service, an online game environment, a virtual gaming community, a teen community, and a teen Web site. Such sorting out of the categories and intertwinements that constitute virtual existence like Habbo—whether it be virtual fish, flesh, or fowl, so to speak—runs a risk of falling back to technologically determinist registers (or at least results in explanations of social action stemming from the inherent designed-*in* characteristics).[3] In contrast, in this article, we approach the constitution of Habbo, as an exemplar of the constitution of a virtual world, through a rich set of empirical materials gathered from its developer company as well as through an extended ethnographic and historical follow-up on the action and actors in the virtual hotel. Our research agenda can be condensed into the following question we seek to address in this article: What is the role of interaction in the constitution of virtuality of virtual worlds?

Before we move on to the empirical analysis, however, we need to make recourse to virtual worlds research to show what is already established about these sites as well as to substantiate our claim that virtual worlds research has to date skipped too hastily over the interactions taking place in these sites or at least failed to draw the full implications of their importance. This discussion is continued by introducing our own theoretical points of departure, methodology, and research design.

VIRTUAL WORLDS—STORIES, GAME STRUCTURES, PLACES, OR PROCESS?

To understand better how our analysis contributes to the analyses of digital spaces called virtual worlds, we take a look at what we already know about virtual worlds. Games studies' two major schools of thought, narratology and ludology, have framed virtual worlds as storytelling and game structures. Narratologists argue that games should be understood as new forms of stories and that they can be studied through theories of narrative (Murray 1997). According to ludologists, however, narratologists analyze game experience with too much focus on the form of the new media, representations, and the play of meaning, but too little focus on human practice, game mechanics, and rules (Aarseth 1997; Juul 2001; Malaby 2007).

Games scholars tend to associate virtual worlds with games. Games, in turn, are considered as *play*, or a form of human activity with three intrinsic features. Play is viewed as *separate activity* from everyday life (from "work," for instance), *safe* (consequence-free or not productive), and *pleasurable* or fun (Caillois 2001). However, recent research has been struggling with the tight coupling of games and play. There is increasing empirical evidence that playing games is not intrinsically consequence-free or separable from everyday experience. Virtual economies, exchanging virtual goods for dollars, and virtual crime provide the prime examples (Lastowka and Hunter 2004; Castronova 2007; Dibbell 2006; Lehdonvirta 2009). Indeed, standing on solid anthropological research, Malaby (2007) argues convincingly that none of the features of play mentioned (separable, safe, pleasurable) holds as an intrinsic, universal feature of games when these virtual worlds are examined empirically.

Virtual worlds have also been analyzed with the aid of typologies (Messinger et al. 2008; Elverdam and Aarseth 2007) on the basis of the features of their material infrastructure, much as in early Linnaean research in biology. It is possible to distinguish virtual worlds from social networking sites (Boyd and Ellison 2007) like Facebook, or online games with designer-provided objectives such as World of Warcraft and The Sims Online. However, from economic, legal, or social sciences standpoints, these distinctions are not as clear-cut. As Darwinism forced a change in biology, a move from typologies based on ideal types to ones based on origin, the virtual world typologies get into trouble as the "Web creatures" seem to crossbreed. For instance, Habbo added social networking tools in 2007, several Facebook applications provide role-playing possibilities, and recently Habbo became a Facebook application. This necessitates an increased sensitivity to process and contingency, how activities in virtual worlds are open-ended and not predetermined by game rules (Malaby 2007).

Virtual worlds have also been analyzed with the aid of analogies such as the concept of "third places" (Oldenburg 1999). Third places—pubs, cafés, coffeehouses, barbershops, beauty salons, and so forth—are used to keep in touch with reality outside the home and the workplace. They can be described as accessible, playful, focusing on conversation, like a home away from home. Many computer-mediated contexts share several of the qualities of third places, though the limits of this analogy are still open for debate (Soukup 2006; Steinkuhler and Williams 2006). However, independently of the chosen analogy, there is a risk of the virtual world becoming naturalized as "not real" and its virtual worldliness escaping analysis. While analogies of "real" places offline help users understand and act online, thus rendering the digital spaces as socially meaningful places, they leave the virtual entity metaphysically hanging in the air and are not suitable for producing a nuanced understanding for the *newness* virtual spaces bring into the world.

Must a virtual world be one thing? Must we be able to settle the questions about its character already in advance? A number of science and technology studies, exemplified here by Taylor's (2006) research on EverQuest, suggest otherwise. Taylor describes the artifact of EverQuest as constantly changing and contextually rendered by different actors. The first EverQuest designers, the Live Team, and the legal

and marketing departments all understand the object in their own ways. The players bring with them their own backgrounds as they encounter EverQuest and have made it something else than what came off the shelf in 1999. This interest in investigating how various actors mingle in constructing and constituting a virtual world is also our aim in this article. We are also drawn in the same direction as Taylor (2006:162) as she notes, "The simple punch line, you see, is that EverQuest is not just one thing nor easily contained in the object that came off the shelf in 1999. In some ways we might think of it as a boundary object" (Bowker and Star 1999).

While we do fancy finding virtual worlds as (one or more instances of) boundary objects as an interesting opening for novel theoretical avenues in virtual world research, we intend to pursue this line of reasoning more fully.

STUDYING THE INTERACTIONS OF MULTIPLE PEOPLE(S) IN HABBO: METHODOLOGY, METHODS, AND DATA

In drawing from the social-worlds framework in symbolic interactionism, we believe this framework is apt for more than Taylor's above "punch line" coined through one of the concepts developed within it (Star and Griesemer 1989). The framework offers analytically robust tools to link such issues as material design, socialization, and play into organizational characteristics and onward to how different peoples and reference groups interact in Habbo. We first attend to the special character of symbolically mediated interactions in virtual worlds and its implications for the makeup of the symbolic repertoires available. We then expand our analytic focus stepwise from the copresent interactions to examine how actors and actants have ended up in the kinds of encounters and interactions we first analyze, and in so doing wish to draw attention to the several intersecting social worlds (Strauss 1978; Clarke and Star 2007) at interplay in the virtual world and how its composition as a symbolic-technological assemblage can be located as an emergent property (actualization of virtuality) of this interplay.

To traverse analytically from the copresent interactions to social worlds, we turn to the symbolic interactionist concept of trajectory (e.g., Strauss 1993:53–68; Bowker and Star 1999). Following Strauss (1993:53), we understand that trajectory "refers to a course of action but also embraces the interaction of multiple actors and contingencies that may be unanticipated and not entirely manageable." With interactions of multiple actors, trajectories tend to be shaped by multiple, intertwined lines of action and multiple social worlds as frames of reference and as conditions for action. Contingencies point to the unanticipated character of trajectory, in that trajectory is used to denote sequences of actions that involve twists and turns rather than ones amenable to predictive control (p. 53). In our use, the concept is further specified by following Bowker and Star (1999:165–94) in emphasizing (1) more long-term (weeks, months, years) depiction of actions and interactions, (2) involvement in trajectories of non-human elements, and (3) the need to examine the phenomena of interest through a complex interplay of intertwined trajectories that have varying durations and paces.

The rationale behind these more specified uses is the following. Interactionist science, technology, and medicine studies have strongly emphasized giving materiality due place in interactionist analysis (e.g., Clarke and Star 2003; Clarke 2005), and this is equally important for studies of virtual worlds, where early literature celebrated virtual identity games as ephemerally free of bodily and material constraint (Turkle 1995; Robinson 2007). Bowker and Star's work exemplifies how the concept of trajectory can be usefully expanded to analyze how matter comes to matter. Furthermore, so interpreted, it becomes roughly parallel with the "biographies of technologies and practices" approach in science and technology studies, a quest that goes beyond interactionism to stress the need to study both development and use as well as to do so with multiple timescales and grain sizes of data in order to yield more balanced accounts of the sociotechnical phenomena under study (Pollock and Williams 2008; Russell and Williams 2002; Hyysalo 2010). Indeed, even in the strongly anti-determinist and methodologically maverick field of technology studies (and pervasively in other fields examining social aspects of technologies), the vast majority of studies have, somewhat surprisingly, focused on studying *either* development *or* use (e.g., Latour 1996; McLaughlin et al. 1999; Woolgar 1991) or, if covering both, addressing one or the other side only at some distance in terms of the granularity of analysis (Berg 1997; Pinch and Oudshoorn 2003).

In practice, the methodology we adopt here means several years of ethnographic involvement with both developer and user communities and their evolution. In the present study on Habbo Hotel, several bodies of data were gathered over the years, presented below chronologically so as to do justice to the gradually deepening access to both developer and user communities that could be negotiated during the study.

1. The project started in 2003 with participant observation in Habbo user communities, pilot interviews, community manager interviews ($n = 4$), and an explorative survey (June 2004) on the visitor profiles ($n = 10,000$), as Sulake's first global youth survey was published two years later. The first author also participated in Habbo, explored the features and their affordances, and analyzed default values and users' degrees of freedom. The visits to Habbo occurred, on average, about twice per month throughout the first three-year span of research, and every second month from 2007 onward (for more on user groups, see Johnson 2007 and Johnson and Sihvonen 2009).

2. Fan sites became an important source of knowledge about the user communities. In 2004, 173 Finnish Habbo fan sites were identified, and 23 of these that were created for a large Habbo audience were analyzed in detail (Johnson and Toiskallio 2005). The size of a fan site varied between five and fifty Web articles, and the most active sites had forums with thousands of posts. Whereas the survey findings provided background statistics, the fan sites and forum discussions provided insight into active user groups and popular activities and on Hotel history. Since its very beginning, Habbo-goers have maintained several sites devoted to what has changed in the hotel and how, including kinds and looks of furniture, characters, in-game games, and design flaws. These members' own documentation has been carefully followed and stored throughout the six years of the research.

3. Throughout the research project, the first author collaborated with other Finn-ish Habbo researchers doing thesis work on a Habbo topic. One Sulake employee wrote her humanistic master's thesis on communication and action in Habbo (Pi-etiläinen 2004). In addition, two youth workers wrote bachelor's theses based on their youth work in Habbo (Sihvola 2005; Koskinen 2006), leading to an evalua-tion study by Merikivi (2007). The collaboration has provided important secondary sources of Habbo data.

4. In 2005 the first author conducted thematic two- to three-hour interviews with ten Habbo developers, or about two-thirds of the Habbo game development organi-zation at the time. Six of the developers interviewed (graphical designers and both client and server developers) had been with the organization since the beginning, five years earlier, while four developers had about one year of Habbo experience. In conjunction with these interviews, historical materials were collected (screenshots, access to previous versions, press releases, advertisements, etc.) about the develop-ment of Habbo and its predecessors, to help construct its development in the years 1999–2003.

5. Having examined the user groups, adjoined sites, and developer practices, the study turned to in-depth interviews with particular users, taking the form of two- to three-hour individual, pair, and group interviews with eleven- to sixteen-year-old users ($n = 6$), and users aged thirty and older ($n = 6$) to focus on their participation histories, their motivations, the meanings they give to Habbo, groups they partici-pate in, and so forth.

6. Habbo has also been a topic for students in various usability research courses at Helsinki University of Technology, with which the first and second authors are affiliated. Two student efforts are noteworthy: a usability test with new ten- to twelve-year-old users ($n = 8$) in 2004 and a software engineering effort in 2004–2005 to develop a fan site starter kit for active Habbo users. The first author mentored the second group and conducted a pair interview in 2007 about the playability testing and usability practices at Sulake.

7. After these activities, the first author had the opportunity to take part in an in-tervention study with Sulake. For release 9 of Habbo, in 2006, a set of user feedback methods was explored with different stakeholders inside Sulake. This included con-fidential data sets: database statistics and surveys from two countries on the use of a new feature. In addition to these research activities, Sulake representatives partici-pated in project partner seminars held every six months, two workshops on virtual economy, and many project meetings arranged by the research project. These meet-ings made informal discussions and a continuous dialogue with Sulake possible.

Taken together, these bodies of data provide us with an excellent view of the varying forms of interchange and dialogue between the varying users and develop-ers of this virtual world. The data analysis has proceeded in multiple waves over the years, including but not limited to quantitative and qualitative sorting of Habbo user profiles (data sets 1, 2, and 5), coding and examining of interviews in regard to participation and development histories in Habbo (data sets 4 and 5), analysis of

fan site contents and developer perceptions of the fan sites (Johnson and Toiskallio 2005; Johnson 2007, data sets 2 and 4), construction of time lines of Habbo's various kinds of development (data sets 2, 5, and 6), and construction of the changes in Habbo's user–developer relations over the years from multiple sources of data (Johnson 2010).

Let us now dive into the material, first examining how interaction takes place in this virtual world and then moving on to (re)construct several intertwined trajectories (Bowker and Star 1999; Strauss 1993; Timmermans 1999) on multiple scales of analysis, proceeding from individual members' participation trajectories and their reference groups to trajectories of material facets of Habbo and to longer time frames of the evolution of Habbo and its developer community.

SOCIAL INTERACTION IN A VIRTUAL WORLD

Virtual Social Interaction

Habbo is a virtual world where children and teenagers meet, socialize, and play many types of games. In the overall design of Habbo, clear winning conditions and game-play rules have been avoided. The hotel consists of public and private rooms, where the virtual hotel visitors, called Habbos, chat, buy virtual furniture, decorate rooms, play mini-games, and arrange social events. Most of the teenage players log on after school and spend, on average, around forty to forty-five minutes per day there. Instead of an entrance fee or monthly fee, the profit model is based on micropayments in the hotel. Virtual furniture, mini-games, and membership in the Habbo Club are bought with Habbo credits. These credits can be purchased with real-world money. At the time of writing, there are Habbo hotels in more than thirty countries, and 15 million players visit Habbo each month (Sulake 2010).

Virtual worlds, such as Habbo Hotel, are complicated settings for analyzing symbolic interaction and its constitutive character in the formation of coordinated action for (at least) two reasons. First, as in any given social community, interaction depends on the use of shared symbolic repertoires (Mead 1964; Blumer 1986), but in virtual worlds this has some peculiar features. Because symbols can consist of any given gesture, object, or relation between the two, they must be recognized as such by the participants in the interaction. This recognition happens only if the actants use symbols consciously, which, in turn, requires that they be able to assume the role of the interactional counterpart so as to anticipate the reaction to the action. It is only the fitting together of these interpretations of action (now symbolically mediated) that gives also the subsequent, resulting event a symbolic meaning.[4] However, social acts performed in virtual worlds like Habbo are not exactly like face-to-face interaction situations, where vocal language is the primacy medium and repository of meaningful symbols. Instead, virtual worlds have predefined, heavily limited, and a priori *designed-in* communication modes that are not *primarily* vocal *and* give out predefined, graphically represented symbolic resources on top of "ordinary" written

symbolic language (understood as coherent discourse—be it English, Arabic, or teen-age slang) that are immediately visible to all users. All stages of interaction are mediated by computers, Web interfaces, and the technologies of infrastructure that make this all possible. This is the second significant aspect of symbolic communication in virtual worlds: it requires a constant interpretation of the graphically represented objects it consists of, and that these really be "objects" in their interactionist sense—everything that can be indicated and referred to by the users themselves (Mead 1964; Blumer 1986), which, as we show below, can take a myriad of forms in the multifarious interactions that take place within, for example, Habbo. Users must learn these and not other modes or symbols to establish meaningful social interaction, and, indeed, for many people entering Habbo the first time, the first reaction is a frequent loss of sense and frame of reference—what is going on here? Regular Habbo-goers also frequently face similar difficulties in understanding what is going on in areas where actors and activities are unfamiliar to them, and are at an utter loss to decipher the meaning of conversations carried out there. This points to the third important aspect of in-virtual-world interaction, that the designed-in symbolic resources are complemented and resymbolized by the interactants and that this can, and often does, have dramatic consequences for the very "makeup" of the symbolic setting.

Let us approach these aspects now one step at a time to elaborate how they play out in Habbo and what their implications are for understanding virtual worlds. To begin with, the interaction within Habbo Hotel draws both on predefined modes of communication and on a limited set of given symbolic resources and mechanisms from which the users can draw in their interactions. Table 1 summarizes the interactional mechanisms available in Habbo.

TABLE 1. Summary of the Interactional Resources Available in Habbo

Interactional Resources	Habbo Hotel Examples
"Verbal"	Visualizations of speech: saying, shouting, whispering
Paraverbal (gestures)	Dancing, waving, standing, sitting, lying down, virtual Post-it notes, Respect
Affordances of space for solitude	Hideaways, Hotel View, "invisible spots"
Personal space	Guest rooms
Fidelity	Pixel graphics
Mediation control	Voluntary logon
Identity	Avatars, their appearances, nicknames
Fine-grained audience control	Friends List and Private Messages, Shared Groups, Friend Categories
Navigation	Hotel Navigator, teleporting, room categories, location of friends, event list, homepage friends lists, profile tags
Space customization	Virtual Interior Design
Persistent text	User Profile Web pages, Discussion forums, Tags
Moderation	Kick, ban, shut-up, chat filter, furni trading automat, furni ownership history

Figure 1: Speech bubbles in Habbo (Sulake 2004). The avatar's name
is displayed in boldface before the message.

Such limited means of interaction in Habbo have direct consequences for how in-teraction can and does unfold. The symbolic interavatar communication takes place predominantly through speech bubbles (Fig. 1)—the way we have been accustomed to in the case of cartoon characters' communication—and comes in three different modes to choose from. These modes are "say," "shout," and "whisper." *Saying* some-thing in the room makes other avatars near you hear what you are saying. If you want to draw the attention of all the Habbos in the room, you can shout. Or if you want to be secretive and share your thoughts only with a particular Habbo near you, you can whisper.

The possibility of changing the modality of textual communication imitates the "real-life" vocal modalities, but is represented visually through the bubbles. The visual representation is important because the temporal aspects of conversation are reworked with this modality of symbolic expression compared with vocality. While vocal conversation takes place in linear sequential order, the "visual speech" gives the interaction and, for instance, the expected turn taking in it (Sacks, Sche-gloff, and Jefferson 1974) a sense of spatiality and conversational simultaneity—conversational encounters happen predominantly in *space* rather than in *time* and also act as particular symbols and resources for *marking space* and *space-claiming* activities.

Another interavatar communication resource is a private communication device called the Habbo Console.[5] It allows for sending direct personal messages through the space-time of the Habbo world to your avatar friends. It also acts as material evi-dence of one's friendship networks through the list of avatar names one has. These different mechanisms and the modalities of communication they afford, as should

Figure 2: Instant messaging through the Habbo Console,
and personal voice control.[6]

be analytically evident, are used for different purposes—in Habbo, as elsewhere, the choice of the medium in itself constitutes an important part of the message.

Besides communication in different modes, the creation of avatars and of rooms are important ongoing exercises in symbolic identity constitution. An avatar's bodily form, color, gender, and clothing style create a subtle set of distinctions, since "Habbos" (as the avatars are called) can be composed only from a set of predefined characteristics. Members of established groups and frequent Habbo visitors can easily read and interpret a large variety of signs about these material/symbolic bodily articulations of the "Habbos": how old are they? are they newbies? is that one a member of a group already or not? are they "cool" or not? who are the "scammers" or moderators? and so on. What materializes in the body of avatars (in clothing, skin color, gender, and interaction styles) is the whole symbolic universe of Habbo, the way distinctions between good taste and bad taste in a certain world within the hotel are made and constantly remade through social negotiations.

Similarly, various material things that are used to build the room environments provide a method of nontextual communication by allowing a certain variety of distinctive elements to be bought ("furni") and used to decorate one's room. The
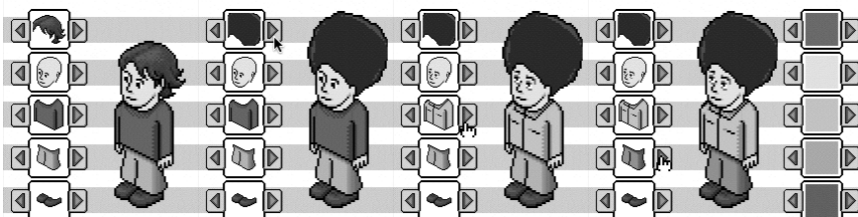

Figure 3: Changes in the color and form of the most visible
elements of a Habbo avatar: hair, shirt, and trousers.

rooms can be used to convey different tastes in decoration by buying and trading furniture judged to belong to a certain desired style. These are central elements in the world making within Habbo, and this is how a priori designed symbolization is actualized within.

However, as we stressed above, new and emergent symbolization is frequently achieved. This happens through creative communication practices and skillful interplay between material and textual, between symbolic and relational elements within the rooms. To get a better empirical grounding in how exactly these social worlds emerge out of novel symbolization processes, let us examine more closely the "equine" activities inside the hotel. This happens in the play between avatar/users, objects, and their relations to spaces—a process where the equine activity becomes *actual* in Habbo through the emergence of *significant* and *shared* symbols that tie different actors together and mediate action. Playful social relationships here are framed by configuring both human (avatar) and material (digital) elements in imaginative ways that still bear some resemblance to horse activities outside the digital world.

Horse-riding activities (like any other, such as formula racing, found within Habbo) require a quasi-bounded digital space, or a setting that allows the play to be focused on commonly shared digital objects. The spatial infrastructure is arranged in particular ways to enable interpretative flexibility about already named objects provided by Sulake as basic components of the rooms—tables, chairs, decorations, and such. A new "placeness" can be symbolized through their spatial rearrangement, the result of which is that any object residing within this social space becomes resymbolized. In horse rooms (e.g., "stables" and "riding grounds"), for example, the spatial rearrangement indicates that tables and chairs have become *new* social objects (e.g., stalls or hurdles) that are constitutive ingredients of virtual horse activities.
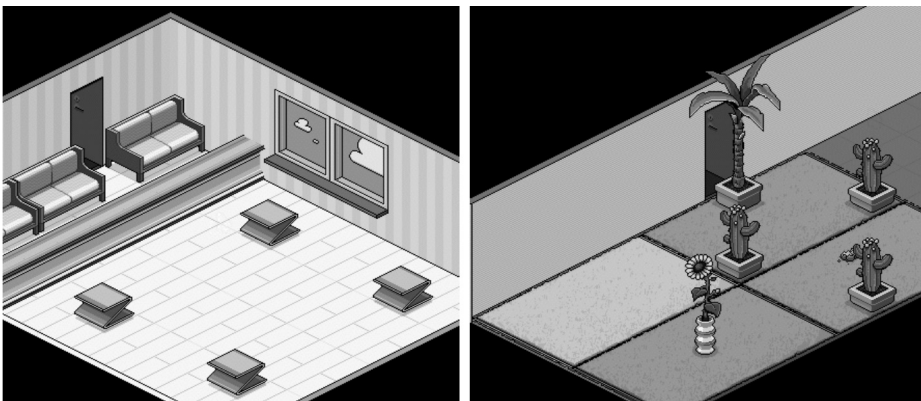

Figure 4: The riding grounds for the horses. On the left, the manège, with Habbo tables as "hurdles." On the right, the room where the horses are "put out to pasture," with three green Habbo rugs as "virtual grass" and the blue rug as a "pond of water."

The riding activity itself is socially coordinated by assigning roles to the avatars within the rooms by their location or by active textual communication. Within rooms indicated as settings for equine activities, an avatar can become a "horse owner" or a "horse." Horse ownership is claimed for an undefined period of time by asking the horse for its approval. The role of "owner" is self-claimed. One can just start to perform linguistically most of the care work one would do on an organic horse outside Habbo—grooming and patting, shoeing, and harnessing the horse all happen by letting the others know that this is happening to the horse at the moment.

Becoming a horse, on the other hand, is indicated to others by standing within the bounds of the marked stable—a spatial bodily "gesture" that has been turned into a sign of particular role-taking initiative. The role of being a horse is further symbolically indicated by selecting a brown skin color for the avatar and by typing the breed, temperament, and age of the role-played horse in the avatar's description (an identity indicator accessible to others through clicking on the avatar).

The role of "being a horse" is often reinforced by making "horse sounds" and communicating the feelings (via undecipherable uttering or descriptions of the sounds and feelings of the horse marked with an asterisk at the beginning and end of the description to separate it from normal conversation), but this kind of communication is not necessarily involved in the case of all "horses"—central is that the interavatar communication is *a noncommunicative act in its symbolic sense*. The horse sounds and silence both act as noncommunicative markers in the intentionally framed human–horse *conversation of gestures*, or the staged nonsymbolic interaction that paradoxically occurs through symbols.[7]

A horse has various ways of accepting a new owner, most often indicated by walking close to the avatar that asked for the permission and responding to the commands the avatar gives to the horse. Here the textual and the nontextual communication intertwine seamlessly to perform a virtual trans-species agreement on the central relationship needed for "riding." Horse owners can then command the horses for riding sessions on dedicated riding grounds—these are usually other rooms connected to the main stables by teleports allowing for a spatial bridge between them. The riding grounds are enacted by decorating the connected rooms as different kinds of terrain. As the avatars cannot really ride on each other, the riding activity itself in Habbo happens by walking the avatars side by side.

The self-given descriptions of action are also differentiated from normal directed talk by asterisks. These communicational frames, as Goffman (1974) would call them, give indication and sense for the actors in the riding world in three senses: first, they indicate the position (the "self") of the actor (e.g., "owner"); second, they indicate the desired position of the other self ("horse"); and, finally, they indicate the correct interpretation of the joint action to be formed by this coordinated action. The frequent switching of the role positions also reinforces this equine activity—new entrants learn what is to be expected, how to use the different symbols and bodily gestures turned into agreements to communicate correctly, and finally how to make sense of the various emergent possibilities of action and interaction that the virtual-world-turned-into-new-activity offers.
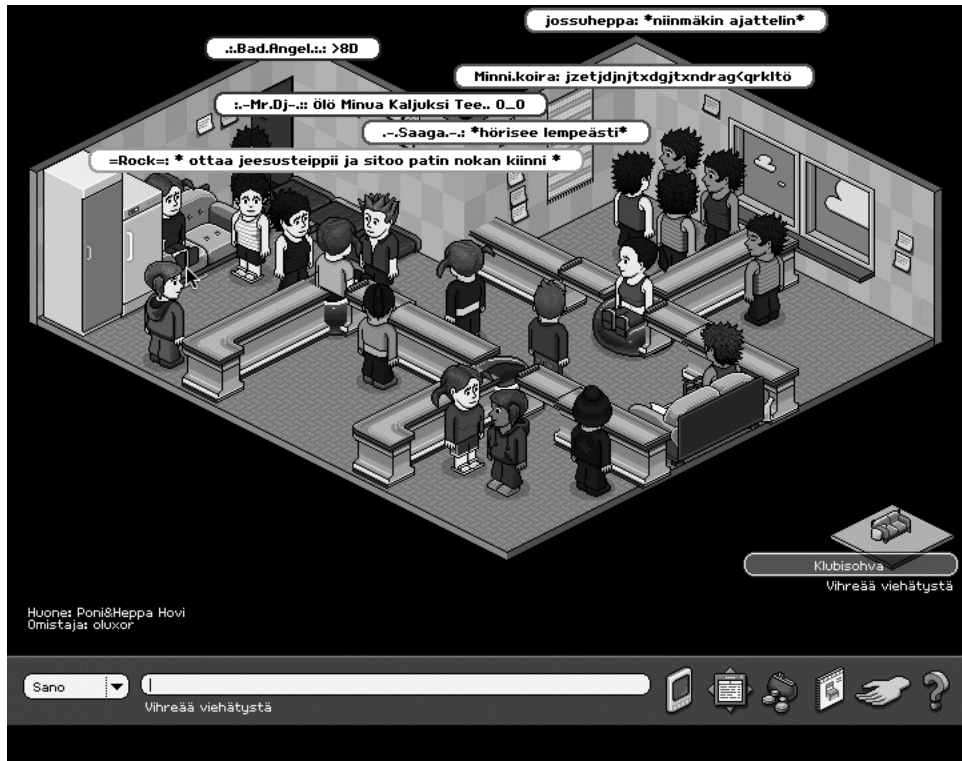
Figure 5: A horse stable together with horses, horse owners, and horse girls. Notice the different ways of framing direct and indirect communication with asterisks by horses and horse girls.

The Actualization of Social Activity in Habbo: Groups and Social Worlds as Virtual Resources for Action

The horse stable leads us to the issues of outside symbolizations brought into Habbo. By following the fan sites (Johnson and Toiskallio 2005), we can identify gang members (people who dress similarly and hang out only with each other), Habbo supervisors, cheaters, quiz makers and players, and celebrities, as well as more loosely framed groups such as goths, punks, emos, skaters, and hip-hoppers who differentiate themselves through clothing and particular communication styles. This is a crude generalization, since we continuously learn about more and less peculiar ways to perform being in Habbo. For instance, one group of friends uses Habbo a few times a year to gather there and "catch up." Also not unheard of is parents leaving messages to and communicating with their children through Habbo. Strange events may take place, such as avatars clad in all-gray clothes repeating "follow the path," gaining a following, and then disappearing—only later to turn out to be art students staging a performance. What should be clear by now is that not only are there some generic

orientations within the hotel, but, just as importantly, there are generic orientations on the "outside" that are brought in and actualized there.

Let us return to our stable owners. As imaginative as their solution was, they created only a small proportion of the rather impressive number of rooms related to horse riding and grooming activities. The equine world has a tangible presence in Habbo—one can find hundreds, or thousands (no one, including Sulake, really knows how many), of "horse settings." This is all the more interesting for having taken place without any special design support to assist the actualization of equestrian activities, be it graphical design or providing the users with special modes of communication between horse- and humanlike avatars.

Importantly, however, the actualization of the virtual equine activities draws from not only the quasi-bounded digital space but entire outside "equine worlds" (cf. Becker 1982) consisting of interrelated activities and subworlds in horse breeding, riding, stable keeping, veterinary medicine, international horse shows, Olympic games, and wide publicity in newspapers and TV—mingled with smells of autumn forests and so forth. Just as importantly, the virtual horse subworld in Habbo draws from other virtual pet worlds (significant in popularity, such as www.neopets.com) and "real-life" pet worlds and hence comes into being as a mixed set of imaginative, communicative, and material resources.[8] All together, these constitute a host of practices, activities, and cultural representations from which the horse girls in Habbo draw—both reflexively and unwittingly—in their creative actualization of the equine activities within Habbo (Becker 1982; Strauss 1993).

As already stated, the equine world is just one of the multitude of social worlds brought in with people visiting Habbo. At the more formal end of the scale we encounter youth workers moving about as they try to find and stay in touch with teens. On the more fleeting end we find Habbo being used as a chat arena for grannies exchanging recipes and new mothers exchanging experiences.

There are two important implications we hope to have established through the above discussion: (1) new kinds of virtualities emerge in virtual worlds through joint coordination of action that shapes its digitally represented material properties, conditions their reinterpretation, and thus undermines the suggested status of communicative symbols "designed" to be available in the virtual world; and (2) the actualization of these virtualities—emergent properties and designations of new objects and their interpretations through joint action—owes much to symbolic resources brought into the virtual world from the outside and from parallel and previous experience.

TRAJECTORIES OF PARTICIPATION AND MATERIALITY

We find it important, however, to deepen both of these observations by moving from temporally confined depiction of a virtual world's interaction to increasingly longer time frames of its existence. This helps us understand in more depth how, exactly, these emergent properties emerge in the history of particular people and materialities and in the Habbo setting as a whole. In doing so, we move away from a setting that is

typical computer-mediated communication analysis to "contextualizing" it through descriptions that are more commonly found in constructivist studies of technology (Clarke and Star 2007). This also exemplifies the potential of symbolic interactionism for bridging these two common research perspectives.

Membership Trajectories—Changes in Orientation and Multiple Memberships

We shall now detail how the emergent symbolizations in Habbo, not only for horse girls but also for the material properties of Habbo, such as key interaction resources for navigation, become established historically. In other words, we examine how the interplay between designed-in, reinterpreted, emergent, and redesigned symbolization takes place through time.

With a risk of appearing utterly descriptive, we first revisit some of the actors' own sociology on how people come to do the kind of imaginative things they do in Habbo. According to the development company's market research (Sulake 2006, 2008), there is no single reason users play Habbo. Sulake has segmented Habbo users into five equal-sized categories: achievers, traditionals, creatives, rebels, and loners. This segmentation is based on their values, attitudes, subculture memberships, and interests. The differing user-base segments highlight a diversity of motivations among users (hinted at by their descriptive labels), but these are not linked with actions online nor do they explain how user motivations change over time.

Besides demographics, a good deal is also known about what kinds of activities take place in Habbo (Johnson and Toiskallio 2007). Players engage in various collective activities: beauty contests, furniture trading, maze solving, dating, role-play in hospitals, travel agencies, gangs, schools, TV shows, stables, and so forth.

With regard to how such engagements develop, players themselves present and publicly represent and debate categories of engagement involved, on some of the fan sites tightly linked with the Habbo community. On the fan site Nerokala, a "Habbo journalist" called Andna explained that Habbo characters could be classified into novices, amateurs, pros, and superhabbos according to their experience. In a Habbo magazine (*Paratiiskala*, no. 8), fan site host Toivo differentiated among four kinds of Habbo characters—furniture traders, competitive players, VIPs, and chatters— and suggested that people move from furniture and competitions to chatting. Our survey of ten thousand Finnish community visitors by and large confirms the above member typifications of people's activities. But to dig deeper into these matters, we depart from Strauss's (1978:124) assertion that "rather than looking simply at organizational mechanisms such as recruitment, we should also be looking at how people get contacted by, encounter, rub up against, are introduced to, drawn into, and hooked on social worlds." Accordingly, we next focus on how people find their way to Habbo in the first place, what they do there, and how their presence there changes. To illustrate the change in presence through time, let us outline two trajectories that are more instructive of the different key issues of life in Habbo (in a

sense, what Flick [1998:68–73] would call "critical cases"). In presentation of these trajectories, we condense their path into five stages to aid in comparison.

The first trajectory is one of an eleven-year-old boy, whose path from "novice" to "pro" illustrates the economic, status, and furniture-related aspects of Habbo. He himself characterizes some of his doings in Habbo as follows:

> J: Then I kept a kind of a hotel. It made damn good profit.
> M: Oh?
> J: They all bought rooms and got, . . .
> M: So you had a kind of [your own] hotel there inside the [Habbo] hotel?
> J: Yes.
> M: Okay, cool.
> J: And they rented a room for a day and . . .
> M: So you divided your own room into parts or?
> J: No, I made those really small rooms and then I put a bed there and stuff.
> M: Yes.
> J: Then I ren–, I provided them with teleports and then a big lobby room and made a lot of [rooms] and then everybody rented them all around.
> M: Oh?
> J: Then I had workers there, and they had to be given salary every now and then.
> M: Yes, yes, what did the workers do then?
> J: Well, they sort of showed them where the rooms are and stuff . . .
> M: What other kinds of those systems have you had?
> J: At one point, I kept a café . . .
> M: What salary do you then give to the workers there?
> J: Well, I give some of the profit, all the lousy furni.
> M: Okay, the lousy furni?
> J: Yes, 'cause some want to work when they don't have anything.

A closer look at his enterprises reveals the following participation trajectory.

First encounters: The boy learned about Habbo and visited it on occasion. However, his father forbade him spending money on Habbo, so he could not buy any furniture.

Early position: He discovered that one can make a profit by running a bazaar in a hotel guest room. In a bazaar, the room guests line up to trade with the room owner. The bazaar keeper/room owner can make a profit, because he can decline bad furniture-trading offers and accept good ones.

Establishing presence: Together with a friend, he decided to keep a café, since they knew that one can share ownership rights in the room, and one person doesn't have to be there all the time to keep the café open.

Continued involvement: The greatest profit came from a hotel within the hotel. Then he created many small rooms and connected them with teleport hub rooms. After this, he "employed" other Habbos to show the way to the rooms. The suite was very popular, and the formerly broke kid became a Habbo millionaire.

Waning participation: Two years later, the father informed us that his son does not go to Habbo that regularly anymore but is still running an in-game formula course for a friend of his there.

This membership trajectory is very economically oriented: all the actions the boy performed are directed toward capitalization on the possibilities provided by the digital infrastructure. In a sense, this is exactly what the Sulake corporation would want people to do in Habbo. However, the father's decision not to allow his son to spend any "real" money on Habbo led the boy to capitalize on his own imagination—the spaces he created for other Habbo-goers were based on imitation of some culturally relevant spaces outside Habbo, "offline." It is also noteworthy that the end of his three-or-so-year involvement is a slow let-go that continues to entertain some of his friendships and skills.

We elaborate in greater depth on the significant shifts in orientation and status with the second trajectory, that of two of the "horse girls" we encountered above and who played Habbo mostly together.

First encounters: The girls encountered Habbo with friends and siblings; one of them inherited furniture from her brother, who was active in Habbo two years earlier.

Early position: Both tried various Habbo activities at first, participating in various user-created game and furniture-trading events.

Establishing presence: The girls began to run a "horse stable" with others, where they held horse-riding competitions. In contrast to most stables in Habbo, their rooms were listed not in the pet category but in the "fun" and "other" categories.

Continued involvement: The horse stable activity ended at some point, both because its upkeep became too laborious and because it was no longer considered socially "cool" as stables became more common in Habbo.

At the time of the interview, the main activity of the girls was to meet their friends, for example, in a room with multiple "kissing corners" where one engages in dating. Their motivation to participate in a particular room is also to "keep it on the [top] list" of Habbo rooms—a self-reflection toward the Habbo "fashion."

Waning participation: The girls were still active in Habbo but also are beginning to have a presence in IRC-Galleria, a Finnish site targeted to older teens.

The trajectory of these two friends begins and ends in a manner that is relatively common for Habbo presences. The participation in the hotel is relatively transient (Kazmer 2007:114) and includes shifts in orientation, or, as the girls put it, "At first stuff was important, but it no longer matters." Just as the generic orientations and positions within Habbo are not mutually exclusive, multiple and partial memberships flourish in terms of outside commitments. As with the other trajectories, these people come from somewhere and go somewhere after their time in Habbo is over. Both girls had at some point ridden also in real life, they enjoyed other pets, and they were aware of the "wolf pack"—another animal theme group in Habbo—fighting other packs. The somewheres people come from affect how people engage with other people and activities in the hotel. Newcomers may have a particular reason for exploring the hotel, or they may orbit Habbo and other attractive games and environments for a while, trying some of them a few times before getting more involved.

So, the initial orientations tend to shift, once one is in contact with Habbo and its other visitors, even as one or several activities come to define the communications and interactions people have. These participation histories lay conditions for symbolic interactions with the designed-in symbols as well as to any emergent symbolization that may occur. This is particularly evident as the participation histories are also anchored to offline world participations of the members, and because membership in one community acts as a resource in the other on those occasions when participation paths converge. In short, the patterns and contingencies in participation trajectories strongly shape what kind of emergent symbolization may occur and hence what kind of emergent virtualities may actualize. To underscore this latter point further, we now examine the trajectory consisting of a constant dialogue between design-appropriation-resymbolization-redesign (and so on) in the actualization of Habbo's navigational means.

Material Trajectories, or How Matter Comes to Matter

The materials, just as people do, have varying trajectories—in fact, so much so that Habbo aficionados have devoted entire pages to tracking how different avatar properties, furniture, decorative elements, and room spaces have evolved over the years.[9] The material trajectories can, on the one hand, be seen as responses to player preferences and wishes (we further substantiate this claim below). At the same time, they always depend on Sulake Corporation Oy and the worlds of social media design, advertisement, and technology management that are drawn to Habbo via the company. Let us follow in detail one trajectory that Habbo members themselves tend to forget—that of navigation mechanisms.

There are several strategies for addressing the problem of finding similar-minded persons or friends within the vast Habbo. These strategies have developed over time as the number of users and rooms in Habbo has increased. At first, people only walked from room to room, but as rooms multiplied this became impractical. Over the first few years, the developers developed three important devices: the Navigator, the Console (friend list), and furniture with teleporting capabilities.

The room-listing device is called Navigator. In the early days, it was a searchable list of all the rooms by name in a particular hotel, both meeting points and attractions created by Sulake and rooms created by Habbo users. The list enabled all room owners to brand and to advertise their room publicly by writing public descriptions for a room. But, as user-created rooms in Habbo were found in excess, the list also began to be as long as the Great Wall of China. This is why these user-created rooms became organized into categories in October 2004, around ten to twenty subcategories, depending on hotel size.

The Habbo Console, in contrast, featured instant messaging among friends in the hotel. Acquaintances in Habbo could agree to become "Habbo friends," which implied that, with the aid of the Console, they could mutually see each other's whereabouts in the hotel and send instant messages to each other.

At this point, Habbo Hotel had changed from multiple village-like places into one resembling a town, action moving from public places increasingly to private areas, creating a need to better hook people up to where all this action was. For instance, for the horse girls then, besides checking their friends on their Console, one strategy to find other Habbo-goers interested in horses was to use the room descriptions as indicators of a room turned into a stable.

But room names took, for instance, our horse girls and their quest for finding a similarly interested avatar only so far. The problem is that if the horse girls were not previously acquainted and in some other room in Habbo, they could not easily recognize other horse girls among the ever-growing hordes of avatars. An ingenious self-identification technique emerged to address this problem. The horse girls started to add a small textual identification before their avatar's one-line description, which indicates, for example, the name of the stable room. This small indicator then worked as a sign of membership of a particular horse group and made the identification processes both for the girls themselves and for outsiders easier. Hence users' innovative actions again added to the developer actions.

The Navigator device, coupled with the possibility to name user-created rooms and to link avatars to that name, provided our horse girls with a powerful tool to find potential equestrian rooms and members belonging to these. But, as users started creating multiple rooms with the same theme, the Sulake developers were inspired to create direct links between two rooms. So the teleport was born.

Teleports, of which some aesthetically resemble British phone booths (a result of being developed for the British Habbo in 2001), are devices that will transport an avatar from one room to another in a predetermined way. Teleports always come
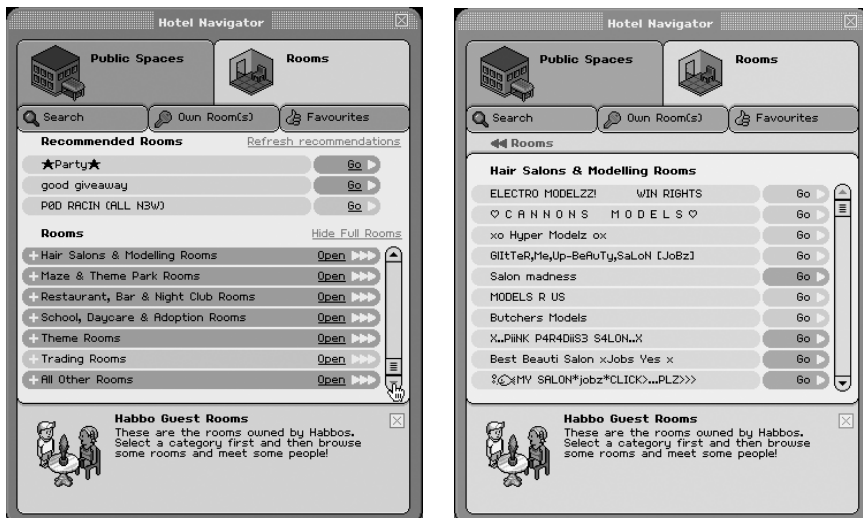

Figure 6: The Navigator device, subcategories of user-created rooms (left) and rooms from the category Hair Salons and Modeling Rooms.

Figure 7: Three forms of the teleport device: a phone booth,
a toilet cubicle, and a closet.

in pairs—once a teleport set is acquired, either by purchasing or by receiving it as a gift from someone else—the user has two ends of a teleporting route. Teleports usually connect places that have something in common—they might connect a set of rooms owned by one person or a vast room network owned by a group of friends. The biggest networks might contain more than one hundred connected rooms. It is the teleport device then that made it possible to create various sub-virtual-worlds within Habbo Hotel itself by making it easily malleable in spatial terms and, as such, supports the enactment of subworlds, such as the stables our horse aficionados are so fond of.

As the numbers of users and user-created rooms increased, Sulake developers introduced a number of new features in 2006–2007 to manage the complexity of finding like-minded people in Habbo. The biggest change was probably the addition of user homepages, which made the Habbo inhabitants browsable and searchable. In addition, the Habbo users could display their own rooms and list of friends publicly, which made social navigation in Habbo even easier. Inspired by the group formation among users in Habbo, the developers added features to support group communication: a group identifier (badge), group homepage, and discussion forum for group members.

A few months after the user homepages were launched, Sulake introduced a feature called tags, which again changed social navigation in Habbo. Habbo users could now tag themselves with their hobbies, interests, personality, and status in Habbo. It is easy to see the resonance with users' self-identifiers here. The tags are searchable, and by clicking on a tag the user gets a listing of all users and groups with that tag (a reverse index). Then, by clicking on another Habbo user, the first user can view the homepage of that user. And on the homepage, the rooms of that particular user normally are listed, and the first user can enter that room in the hotel directly, without using the Navigator. Now, at the time of writing, Sulake is changing the Navigator again.

The interaction between users and developers, as argued above, happens both through a creative user appropriation of the digital symbols and mechanisms the

developers are offering at any given time and through the introduction of novel interaction mechanisms and symbols to Habbo in the hope of "bettering" the virtual world. In fact, a constant "mattering" of the infrastructure comes about only through this dialogue, showing again nicely how virtuality is actualized through the digitality of the virtual world itself. With these developments and the growth in size of the hotel, Sulake, together with its users, has facilitated the emergence of increasingly differentiated subworlds and events.

OVERALL DEVELOPMENT OF A VIRTUAL WORLD

The Development Trajectory of Habbo

The material trajectories take us squarely to the more long-term trajectory of Habbo's overall material and social development. In the early Habbo days, the hotel was developed by a handful of game developers with core competencies in graphic design, Macromedia Shockwave Flash clients, and Java server programming. At first they developed the hotel called Kultakala ("goldfish" in Finnish) for themselves and their friends, but just a year after launch it became popular among teenagers. Through the internationalization of the hotel, the organization grew, and every country got a local office with a few employees working on moderation, community management, customer relations, and marketing. More administration and business personnel have joined, and game development now involves more than a dozen game developers. At the time of writing, Sulake employs about 270 people, in the Helsinki headquates and eleven other offices around the world." Should read: At the time of writing, Sulake employs about 270 people in the Helsinki headquarters and eleven other offices around the world.

Habbo was based on two previous launches, Mobiles Disco (October 1999) and a snowball game called Lumisota (February 2000). Mobiles Disco provided the basic hotel infrastructure in the pixelated "retro" style: rooms, easy navigation from room to room, the chat interface with speech bubbles, and avatar customization and movement inside the rooms. For Lumisota, the developers implemented paying through cell-phone messages, which at the time was a practical solution for the Finnish market. This worked well for the Finnish Hotel Kultakala (August 2000) but wasn't that successful in the UK version (February 2001). At the time, British teens didn't use cellular phones as widely as Finnish teens, which meant that Sulake had to develop new ways to buy furniture. Phone call systems, youth cash cards made of paper, and check systems came first, but soon payment by credit card, use of PayPal, and bank transfers followed.

With the UK hotel also followed the teen invasion of Habbo. It was not designed for teens at first, as illustrated by the developers making furniture sets with bar desks as integral elements and one of the new public rooms being greatly influenced by stereotypical English pubs. The large number of teen visitors also meant a large number of concerned parents. To keep all this together, community management

received a lot of attention. A set of guidelines for good behavior was established, called Habbo Way, and tools for governing it were developed. The moderators got their own interface to Habbo, which meant that they didn't have to be in the same room to follow a discussion, and a text filter was developed to screen for swearwords. The customer service got an automated response system to reduce the amount of personal service needed.

In 2002–2003 Sulake developed its business, the hotel, and the community simultaneously. Strategic partnerships were made, and brands such as Mountain Dew and Britney Spears entered Habbo, the former as a vending machine serving Mountain Dew bottles and the latter as a large poster to be hung on walls. Later these brands disappeared as Sulake tried another approach by developing Coke Studios for Coca-Cola and Walt Disney Magic Kingdom for Warner Cinema. These were customized versions of the technical game engine behind Habbo, which helped fund the development of the hotel. The hotel's technical architecture was stabilized, and security improvements were made to package the hotel into a product that could be more easily rolled out in new countries.

The community manager in each country started writing weekly newsletters, sending "Welcome!" messages to new visitors, celebrating birthdays, arranging competitions, arranging activities and events, and so forth. While, in the beginning, Habbo didn't follow any temporal rhythms, seasonal themes now were brought in to give Habbo a particular rhythm. Competitions and new furniture emerged to celebrate Halloween, Christmas, Easter, the summer holidays, and other themes or topics important to teenagers. Right from the start, the Habbo visitors started writing and debating Habbo on their own homepages, and some created totally Habbo-themed Web sites. While these fan sites complemented Sulake's community management, they also helped Sulake in regulating sites that were out to scam the users. In 2006 Sulake launched its own forum and later group support features, which again changed the power balance in the Habbo "mediaworld."

Habbo's profit model allows a group of friends to meet in Habbo for free, while those interested can pay for the hotel services they want. Sulake offers a standard set of furniture items in a catalog that is updated now and then with new furniture items. Some furniture items are given monthly to members of the Habbo Club, and collector's furniture items at 20 credits become available for two weeks only, which increases their future value. The furni items do not wear out, which means that the same piece of furniture can be passed along to new hotel visitors as older ones grow tired of furniture trading.

Most of the Habbo visitors do not pay, but those who do spend about €10 a month, on average. To secure revenue streams, in 2003 Sulake introduced the Habbo Club, which—in exchange for a few euros per month—provides its members with priority access to rooms and club-only hotel public spaces; exclusive hairstyles, clothes, dance styles, and guest room layouts; and some special features. About 85–90 percent of Sulake's income related to Habbo comes from such small payments by many users (cf. the "long tail"), and the rest from advertisements in Habbo.

Marginalization of Developers, or The Distributed Agency in the Development of Habbo

The development trajectory of Habbo Hotel has been significantly shaped by its visitors. As noted, Sulake met the teen invasion to Habbo Hotels by crafting a social order appealing to teens and parents. By 2006, thirteen-year-old girls considered themselves old in Finnish Habbo, and fifteen-year-olds hid their Habbo visits at school in order not to be ridiculed by their peers.

Long before this, the original user set—young adults consisting of Habbo designers' professional and leisure peer groups—found themselves in more and more awkward conversations with other visitors. Typical avatar names showing one's year of birth, such as "Cosmo85," made them either recognized celebrities or old freaks no one wanted to converse with—both equally undesired positions in terms of enjoying their visits.

The invasion of kids pushed older teens and adults to more grown-up and less frequently visited areas and hours of the hotel, such as after pub closing time (in the real world). Various legitimate places also remained within Habbo, such as a table in "Café Heaven," reserved only for certain VIP regulars. Even as the face of the hotel changed drastically and rapidly, there was remarkably little open conflict. Older visitors simply emigrated from the niches invaded by kids to more secluded parts of the hotel and to other digital environments.

While the rejuvenation of Habbo was actively facilitated by the design and business decisions of Sulake Corporation Oy, it led the company into a set of quandaries. Many teen hangouts attract younger kids, who follow in the wake of "cool" older kids, who in turn leave the place that has been turned suddenly "uncool" by what they regard as weenie brats; Habbo runs a risk also of losing its target group of thirteen- to eighteen-year-olds. As youth workers know, this common pattern has long been known to desolate places designed to keep, for example, teens off the streets and is notoriously hard to reverse.

An interesting side effect is that the developers of Sulake, once insiders, are no longer confident that they understand what is cool (let alone why) even when it is pointed out to them by kids. They have thus become outsiders—first big brothers and then uncles—to the communities of most visitors. Originally unheard of, techniques such as user research had to be introduced by Sulake to follow the development of Habbo. Such measures also stem from the increasing complexity and specialization of the development organization, where not everyone can afford to invest the time to follow events in all Habbo hotels around the world.

The final part of the quandary is that the rejuvenation of Habbo differentiates hotels in different countries. In Japan, for instance, kids do not have PC access at home in the same fashion as in Finland, and Habbo visitors there remained in the twenty to forty age group. In some later releases such as for Spain and Portugal, Habbo was originally branded for the thirteen to eighteen age group and was immediately appropriated by the younger teens. Moderating and developing a "chain of Habbo Hotels" face new challenges, with the visitor bases having increasingly different tastes

and interests, arguably adding to difficulties in taking features developed in one hotel to others.

While virtual worlds may allow greater possibilities for moderation and channeling action by the developer company than more tangible products, Habbo makes the limits of this control clear. Who the visitors are and what they do affects the behavior of other visitors—even when most of them never actually meet each other. The people and patterns of interaction shape the evolution of the place. Sulake lost omnipotence over all rooms and action some years ago because of the technical complexity and the number of rooms in Habbo. However, it decided not to worry about the loss of control but instead to stay on alert as to what interesting and potentially fruitful developments might occur. This is not least because the virtual world experiences versions of real-world phenomena such as dynamics between relatively young and older kids and the establishment of communities having ties and building on representations to outside social worlds—all of which are hard, if not impossible, for the company to control.

The clear lesson to draw from the overall development trajectory of Habbo is that virtual worlds research, and social studies of technology and media more generally, must start addressing both *development* and *usages of* social media within the same study. Just following action and interaction in a given moment in a virtual world like Habbo would give an extremely truncated view of the sociability and interaction there. Moreover, not extending the study to both development and usage activities would, as it appears to us, lead to almost inevitably mistaken guesswork over what, for instance, developers have intended with specific features and, conversely, how the design of a feature affects play in the virtual world (just think of the virtual stables that would be virtually impossible within the limits of Habbo's design!). The digital materialities of Habbo are highly relevant to how Sulake can manage, channel, stir up, and block actions of the vastly different people and interest groups that move around in Habbo. However, to view Habbo's materiality as "Sulake's creation" could emerge only from research (or opinion) ignorant of the developers' close interaction with, and responses to, player wishes and interests (Johnson 2007, 2010). Over a ten-year span, in total, twenty-three purposeful and formidable approaches to mediating developers and users can be observed (Johnson 2010)! The virtuality of a virtual world cannot be reduced to any one of its elements or group of actors affecting it. Instead, many facets of it are virtual also in the sense of being emergent phenomena arising from the interplay and conjoining actions of a multitude of actors.

DISCUSSION

Taken together, these findings foreground several issues for virtual worlds research. First, as Robinson (2007) stresses, we need to pay attention to how virtual worlds are related to real-world activities and social worlds. People come to virtual worlds from various somewheres that greatly affect what they engage with in a virtual world and how their computer-mediated communication takes place. We need to focus on both the users and the corporation behind the virtual world, as well as look at the

shifting activities, orientations, and motivations that are negotiated in their various interactions. The interactionist concept of trajectory is further conducive to analyses at multiple "grain sizes" of data and, accordingly, to keeping in sight how trajectories of members, material characteristics, and groups intertwine and how they constitute the longer time frame trajectory of the virtual world and its developer company.

Second, while these observations may seem trivial, they are significant for debates about what virtual worlds *are*: no one element such as specific functions, narrative structures, particular architecture, placeness, or digital environment turns a site into a virtual existence. Following Taylor 2006, we argue that the multiplicity of resources rooted in various background social worlds of participants is likely to feature as important in any given virtual world. It may be less visible in such virtual worlds as do not so explicitly encourage people to externalize their affiliations, interpretations, and desires concerning the real world. More tightly scripted role-playing environments may also draw only in a more limited way from the participants' experience. While such differences are likely, they do not necessarily follow from, or primarily from, a virtual/real division, or game/hanging out, or particular narrative structures, or gaming qualities. Instead, the differences come in the form of *how* different actors negotiate their positions, which can affect others and are affected by others. To us, these likely differences are a further reason to foreground the analysis of the interaction between multiple peoples in the study of virtual worlds over the explanations held dominant to date.

A third noteworthy facet of Habbo is the dramatic changes the virtual site has gone through in the few years of its existence. The teen invasion and consequent changes in the design and commercial aspects of Habbo have added entirely new kinds of virtualities to it, as our example of horse girls bears witness to (along with goths and many other subgroups; see Johnson and Sihvonen 2009). Drawing from the equine world and children's playmaking practices, these teen girls have managed to alter (one could say subvert) the materialities of Habbo and effectively added a layer of imaginative existence to Habbo that never was designed into it. The virtuality of virtual worlds comes into being in multiple ways, some more digital, some relying more on imaginative add-ons to designed components.

Fourth, Habbo's meandering development trajectory—consisting of intertwined trajectories of a large number of people and different material objects, such as the changing means of navigation and communication—calls into question any temporally rigid conceptualization of what it is. This observation leads us to depart from Taylor. Virtual worlds present interesting conceptual terrain for interactionist concepts of objects and materialities we should attend with care. The earliest Habbo, where developers and their friends interacted and most newcomers belonged to roughly the same reference group, would have been aptly characterized as their site for within-group interaction. This would, however, no longer aptly describe Habbo after the teen invasion. Indeed, Taylor's (2006) insistence concerning EverQuest being a boundary object would have suited Habbo well at the point when it was limited to a few thousand, or tens of thousands, of players who gave it robust and generic

meanings in their communications with others in and out of the hotel, and more specific meanings among their key reference groups, whether designing, playing the economy, or just chatting with friends (cf. Star 1989; Bowker and Star 1999). But Habbo's more complex shape is no longer easily amenable to this conceptualization either. The reasons are similar to ones that led Bowker and Star (1999) to coin the term "boundary infrastructure" to denote complex infrastructures that act much in the manner of boundary objects between diverse social worlds but have such a complex and large structure that calling them "objects" would seriously misrepresent their materialities as well as the social interactions involved.[10]

Yet Habbo's material makeup (even as it is spread into about thirty country-specific and somewhat varying versions) appears too uniform to be well conceptualized in terms of a "boundary infrastructure," as it lacks many key characteristics of an infrastructure (cf. Star and Ruhleder 1996). It should also by now be clear that we second Taylor's insistence that virtual worlds are too diverse and their existence too rooted in multiple outside social worlds for equating a large virtual world with "a social world" (in the sense of it being one social world per se), even as other immersive digital environments have been discussed as social worlds, as in the work of Kazmer (2007). It is an interesting question whether all the various massively multiplayer digital environments together should be seen (or could be seen in the future) as constituting such a cluster of activities and subworlds that they would aptly be conceptualized as a distinct social world of "virtual worlds." It would then be of further interest to examine the role of Habbo's emergent virtuality and developer responses to it in the shaping of this broader setting. However, as the question is mostly empirical and we have not conducted systematic research on other virtual worlds, we wish to refrain from any further speculation.

The point here, quite obviously, is not in trying to present some offhand fitting of different stages of a growing virtual world to interactionist concepts but to illustrate that, just like "real-world" social formations, digital ones have careers wherein their shape—even their nature, as in what kinds of virtualities can be actualized in the virtual world—can vary importantly because of the interactions taking place there.[11]

FINAL REMARKS

The study presented in this article draws heavily on the idea that, to understand virtual worlds, one needs to study "both ends" of the user–producer relationship, here translated as Habbo visitors and the Sulake corporation, and see their various coproductive entanglements through time, as an inherently mutable process. Our claim is substantiated by the illustrative examples above of how the constitution of the "worldliness" of virtual worlds is coproduced by their constant interaction in different modalities and mediations. In many ways, the study of virtual worlds can lean on an idea presented by many in interactionist research, perhaps most aptly phrased by Becker (1982:35): "The world exists in the cooperative activity . . . not as a structure or organization . . . keeping in mind that such things change." What we

see as the most important lesson learned in the case of Habbo is that virtual worlds are not reducible to any one description or metaphor, because they are made out of emergent interactions within and between many intersecting social worlds, some of which are highly transient and others more stable, materializing in and through shared, cocreated digital infrastructures.

The future challenges of internet research lie therefore not only in the study of particular typologies made possible by the stable worlds made out of generative relations provided by the human and nonhuman actors (individual and collective) but also in the temporal processes that make possible the different articulations between these elements of constant permutations of social life. This implies future development of sensitizing concepts complementary to the ones derived from "offline" interaction as well as a research strategy capable of addressing the changing trajectories of social settings that we today call virtual worlds.

NOTES

1. By one way of counting (that of www.kzero.co.uk), Habbo is the world's most populous virtual world and definitely very popular as a (web of) teenage site(s).

2. *Virtuality*, here, should be understood as the not-yet-actualized events that technoscientific assemblages such as virtual worlds make real, or *actualize*, in digital environments (see Deleuze 1994; cf. Mol 2002). We give empirical examples of this actualization of virtuality *in-action* below through the tools provided by symbolic interactionism—that is, by asking how symbolization here becomes a social fact.

3. This would amount to claiming that there is no virtuality, in the sense of emergent events, in social communication per se (that all communication would be totally predictable beforehand) or, even worse, that "virtuality" of a (communicational) event would be constituted solely by the technologies at hand.

4. Of interest here is that the meaning of action does not require the actions to be mediated through symbols, as Mead (1964) pointed out—the turns taken in and through the conditioned "conversation of gestures" do have "objective" meaning, as does the outcome of this kind of interaction. Interaction only becomes symbolically *significant* if the action and the turns taken in action become anticipated, controlled, and temporally arranged with regard to a prior idea of a meaning of an event, human, thing, or generalizable relationship between them (Mead 1964, esp. 75–82 and 117–25). Blumer (1986:8) later translates these as nonsymbolic and symbolic forms of action. Virtual worlds problematize this heuristic differentiation, as we show below. However, we do not address this issue further here except by indicating in the footnotes when questions about the empirical soundness of this dichotomy become relevant.

5. The functionality of the Habbo Console was split into Friend management, Minimail, and Instant Messaging in 2008 with subsequent user interface changes.

6. These screenshots are not an exact representation of Habbo's contemporary appearance, because they and the data are tightly coupled with a specific time and Habbo version.

7. And it is in instances like these where the analytic distinction between nonsymbolic and symbolic interaction breaks down—empirically taken, staged playacting and layered symbolic interaction can include elements of conversation that are symbolically *intended and indicated* to be nonsymbolic. For a good analysis of this communicational paradox, see Bateson and Bateson 1987:80.

8. Sulake also provides ready pets in Habbo, bots that have rigid ownerships and very limited interactive capacities, and hence horse interactions are in striking contrast to "having a pet" in Habbo.

9. For old features and feature evolution, see www.habbox.com => Guides + Content => Habbo Knowledge => Old Habbo Features or, for country-specific variations, http://www.habborator. org/furniture/list.html, and for release details http://www.habborator.org/facts/index.html.

10. Surely, Habbo can be considered a social object as in something that can be referred to, but this would be an utterly superficial way to sensitize ourselves to it. Let us remember that, after all, for instance, in Finland, as much as 25 percent of the early-teen cohort has, or has had, a presence there.

11. Some of the other interesting questions we did not have space to explore within this article concern the specifics and intersections of teen and digital cultures. One example is the transience of Habbo for its participants, most designers included, as one's trajectory in Habbo lasts two to three years and typically moves to other social media environments after this.

REFERENCES

Aarseth, Espen J. 1997. *Cybertext: Perspectives on Ergodic Literature*. Baltimore, MD: Johns Hopkins University Press.

Bartle, Richard. 2003. "Designing Virtual Worlds." *New Riders Games*, July 25.

Bateson, Gregory and Mary Catherine Bateson. 1987. *Angels Fear: Towards an Epistemology of the Sacred*. New York: Macmillan.

Becker, Howard S. 1982. *Art Worlds*. Berkeley: University of California Press.

Berg, Marc. 1997. *Rationalizing Medical Work*. Cambridge, MA: MIT Press.

Blumer, Herbert. 1986. *Symbolic Interactionism: Perspective and Method*. Berkeley: University of California Press.

Bowker, Geoffrey C. and Susan L. Star. 1999. *Sorting Things Out: Classification and Its Consequences*. Cambridge, MA: MIT Press.

Boyd, Danah M. and Nicole B. Ellison. 2007. "Social Network Sites: Definition, History, and Scholarship." *Journal of Computer-Mediated Communication* 13(1). Retrieved from http://jcmc. indiana.edu/vol13/issue1/boyd.ellison.html.

Caillois, Roger. 2001. *Man, Play, and Games*. Urbana: University of Illinois Press.

Castronova, Edward. 2005. *Synthetic Worlds: The Business and Culture of Online Games*. Chicago: University Of Chicago Press.

———. 2007. *Exodus to the Virtual World: How Online Fun Is Changing Reality*. New York: Palgrave Macmillan.

Clarke, Adele E. 2005. *Situational Analysis—Grounded Theory after the Postmodern Turn*. Thousand Oaks, CA: Sage.

Clarke, Adele E. and Susan L. Star. 2003. "Symbolic Interactionist Science, Technology, Information, and Biomedicine Studies." Pp. 539–74 in *Handbook of Symbolic Interaction*, edited by L. T. Reynolds and N. J. Herman. Walnut Creek, CA: Alta Mira.

———. 2007. "The Social Worlds Framework as a Theory/Methods Package." Pp. 113–37. in *The Handbook of Science and Technology Studies*, 3rd ed., edited by E. J. Hackett, O. Amsterdamska, M. Lynch, and J. Wajcman. Cambridge, MA: MIT Press.

Deleuze, Gilles. 1994. *Difference and Repetition*. New York: Columbia University Press.

Dibbell, Julian. 2006. *Play Money, or How I Quit My Day Job and Made Millions Trading Virtual Loot*. New York: Basic Books.

Elverdam, Christian and Espen Aarseth. 2007. "Game Classification and Game Design: Construction through Critical Analysis." *Games and Culture* 2:3–22.

Flick, Owe. 1998. *An Introduction to Qualitative Research*. London: Sage.

Goffman, Erving. 1974. *Frame Analysis: An Essay on the Organization of Experience*. Cambridge, MA: Harvard University Press.

Hyysalo, Sampsa I. 2010. *Health Technology Development and Use: Practice Bound Imaginaries and Biographies, or How Technological Configurations Evolve*. New York: Routledge.

Johnson, Mikael. 2007. "Unscrambling the 'Average User' of Habbo Hotel." *Human Technology* 3(2):127–53.

———. 2010. "User Involvement, Social Media, and Service Evolution: The Case of Habbo." Proceedings of the Forty-third Annual Hawaii International Conference on System Sciences. Retrieved August 31, 2010, from http://doi.ieeecomputersociety.org/10.1109/HICSS.2010.425.

Johnson, Mikael and Tanja Sihvonen. 2009. "On the Dark Side: Gothic Play and Performance in a Virtual World." *Journal of Virtual Worlds Research* 1(3). Retrieved August 31, 2010, from http://journals.tdl.org/jvwr/article/viewArticle/368.

Johnson, Mikael and Kalle Toiskallio. 2005. "Fansites as Sources for User Research: Case Habbo Hotel." Paper presented at the Twenty-eighth Information Systems Research Seminar in Scandinavia, August 6–9, Kristiansand, Norway. Retrieved from http://www.hiit.fi/u/johnson.

———. 2007. "Who Are the Users of Habbo Hotel?" Pp. 89–107 in *Mobile Content Communities*. HIIT Publications 2007-1, April. Retrieved from http://www.hiit.fi/publications.

Juul, Jesper. 2001. "Games Telling Stories? A Brief Note on Games and Narratives." *Game Studies* 1. Retrieved August 31, 2010, from http://www.gamestudies.org/0101/juul-gts/.

Kazmer, Michelle M. 2007. "Beyond C U L8R: Disengaging from Online Social Worlds." *New Media and Society* 9:111–38.

Koskinen, Aleksi. 2006. "Elämistä, olemista, pelaamista—keitä Habbo Hotelin käyttäjät ovat ja kuinka heidän kanssaan tehdään nuorisotyötä?" ("Living, Being, Playing—Who Are the Habbo Users and How Can One Do Youth Work with Them?"). Unpublished thesis, Mikkeli Polytechnic, Finland.

KZero. 2009. Virtual Worlds Registered Accounts Q3 2009. Retrieved August 31, 2010, from http://www.kzero.co.uk/universe.php.

Lastowka, F. Gregory and Dan Hunter. 2004. "The Laws of the Virtual Worlds." *California Law Review* 92:3–73.

Latour, Bruno. 1996. *Aramis, or The Love of Technology*. Cambridge, MA: Harvard University Press.

Lehdonvirta, Vili. 2009. "Virtual Item Sales as a Revenue Model: Identifying Attributes That Drive Purchase Decisions." *Electronic Commerce Research* 9:97–113.

Malaby, Thomas M. 2007. "Beyond Play: A New Approach to Games." *Games and Culture* 2:95–113.

McLaughlin, J., P. Rosen, D. Skinner, and A. Webster. 1999. *Valuing Technology: Organisations, Culture, and Change*. London: Routledge.

Mead, George Herbert. 1964. *Selected Writings*. Indianapolis, IN: Bobbs-Merrill.

Merikivi, Jani. 2007. "Netari.fi—nuorisotyön arvo" ("Netari.fi—the Value of Youth Work"), verkkojulkaisuja 14. *Nuorisotutkimusverkosto/Nuorisotutkimusseura* (*Youth Finnish Youth Research Society*). Retrieved August 31, 2010, from http://www.nuorisotutkimusseura.fi/.

Messinger, Paul R., Elini Stroulia, and Kelly Lyons. 2008. A Typology of Virtual Worlds: Historical Overview and Future Directions. *Journal of Virtual Worlds Research* 1. Retrieved August 31, 2010, from http://jvwresearch.org/.

Mol, Annemarie. 2002. *The Body Multiple: Ontology in Medical Practice*. Science and Cultural Theory. Durham, NC: Duke University Press.

Murray, Janet Horowitz. 1997. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. New York: Free Press.

Oldenburg, Ray. 1999. *The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community*, 3rd ed. New York: Marlowe.

Pietiläinen, Reetta. 2004. "Kommunikointi ja toiminta Habbo Hotel Kultakalassa" ("Communication and Action in Habbo Hotel Kultakala"). Unpublished master's thesis, University of Helsinki.

Pinch, Trevor J. and Nelly Oudshoorn, eds. 2003. *How Users Matter: The Co-Construction of Users and Technologies*. Cambridge, MA: MIT Press.

Pollock, Neil and Robin A. Williams. 2008. *Software and Organizations: The Biography of the Packaged Enterprise System, or How SAP Conquered the World*. London: Routledge.

Robinson, Laura. 2007. The Cyberself: The Self-ing Project Goes Online, Symbolic Interaction in the Digital Age. *New Media and Society* 9(1):93–110.

Russell, Stewart and Robin Williams. 2002. "Social Shaping of Technology: Frameworks, Findings and Implications for Policy with Glossary of Social Shaping Concepts." Pp. 19–35 in *Shaping Technology, Guiding Policy: Concepts, Spaces, and Tools*, ed. K. H. Sørensen and R. Williams. Cheltenham, UK: Elgar.

Sacks, Harvey, Emanuel A. Schegloff, and Gail Jefferson. 1974. "A Simplest Systematics for the Organization of Turn-Taking for Conversation." *Language* 50:696–735.

Sihvola, Sebastian. 2005. "Netari.fi Nuorisotyö Habbo Hotelissa" ("Netari.fi –Youth Work in Habbo Hotelissa"). Unpublished bachelor's thesis, HUMAK, University of Applied Sciences, Finland.

Soukup, Charles. 2006. "Computer-Mediated Communication as a Virtual Third Place: Building Oldenburg's Great Good Places on the World Wide Web." *New Media and Society* 8:421–40.

Star, Susan Leigh. 1989. *Regions of the Mind: Brain Research and the Quest for Scientific Certainty*. Stanford, CA: Stanford University Press.

Star, Susan Leigh and James Griesemer. 1989. "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907–1939." *Social Studies of Science* 19:387–420.

Star, Susan Leigh and Karen Ruhleder. 1996. "Steps toward an Ecology of Infrastructure: Design and Access for Large Information Spaces." *Information Systems Research* 7(1):111–34.

Steinkuhler, Constance and Dmitri Williams. 2006. "Where Everybody Knows Your (Screen) Name: Online Games as 'Third Places.'" *Journal of Computer-Mediated Communication* 11. Retrieved August 31, 2010, from http://jcmc.indiana.edu/vol11/issue4/steinkuehler.html.

Strauss, Anselm. 1978. "A Social World Perspective." Pp. 119–28 in *Studies in Social Interaction 1*, edited by N. Denzin. Greenwich, CT: JAI.

———. 1993. "Continual Permutations of Action." *Communication and Social Order*. New York: Aldine de Gruyter.

———. 2006. "Global Habbo Youth Survey." Lahti, Finland: Sulake Corporation.

———. 2008. "Global Habbo Youth Survey." Lahti, Finland: Sulake Corporation.

————. 2010. Quick Habbo facts, July. Retrieved from http://www.sulake.com/habbo.

Taylor, T. L. 2006. *Play between Worlds: Exploring Online Game Culture*. Cambridge, MA: MIT Press.

Timmermans, Stefan. 1999. *Sudden Death and the Myth of CPR*. Philadelphia: Temple University Press.

Turkle, Sherry. 1995. *Life on the Screen: Identity in the Age of the Internet*. New York: Simon and Schuster.

Woolgar, Steve. 1991. "Configuring the User: The Case of Usability Trials." Pp. 57–102 in *A Sociology of Monsters: Essays on Power, Technology, and Domination*, edited by J. Law. London: Routledge.