Rest In Peace, Bill the Bot: Death and Life in Virtual Worlds

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4.1 Introduction

You are about to read a story of crime, deceit and punishment. The story takes place in a virtual world, but it is by no means a fiction story. All the characters portrayed have existed and the events recollected have actually happened. They are taken from the real everyday life of a virtual world. A virtual world is a virtual place that is persistent over time – unlike the environments of networked games like Quake – and it is accessible by many people at the same time. These people have to have some kind of self-representation, so participants can see each other, unlike the simultaneous visitors of a website. By calling it a place, I have implied that the system has to be based on some kind of spatial metaphor, unlike an electronic message board for instance. It can be a text-based system – but in this case it is graphical. My reason for telling this story is to point out some important aspects of the nature of the social interaction in this kind of setting that are easily overlooked by anyone who does not have extensive first-hand experience from participation in social virtual worlds. But I will save my analysis for later.

4.2 Setting the Stage

Shakespeare told us that "all the world's a stage". The world that comprised the stage for this particular drama was a virtual world that was my own creation. I had named it the Virtual MIT House after the Mathematics and Information Technology House at the Umeå University campus where I worked. The world was used in teaching at my department, for meetings between physically distributed researchers, and between researchers at the department and their families when they were abroad on travels. It was also used for recreational purposes. I encouraged different kinds of activities in my world in order to be able to conduct ethnographic studies in my own backyard, as it were. The Virtual MIT House was a part of a virtual universe called the Palace. As of January 2001, the company running the official Palace servers shut down their services. But since the Palace

technology is distributed, other Palace servers still work and many servers are still in operation.

The Palace is a system for making and using two-dimensional graphical worlds. In these worlds, people are represented as small images called avatars superimposed on often cartoon-like backdrops. The citizens in these worlds belong to different classes. At the bottom of the hierarchy are the guests. They are restricted to using avatars that look like smileys and they are assigned a new generic name every time they enter a Palace world. Registered users become members and can choose their own name and appearance (see figure 1).

Figure 1. The Palace.

To help me in the continuous development and care-taking of the world, I had two wizards whom we can call Neo and Trinity. They were both American teenagers who spent much of their time in the Palace. I had given them wizard status, which means that they could add and delete rooms. They also had the ability to enforce the rules of social conduct among the members and guests, including the use of force if they found it necessary. They could, for instance, make a person unable to speak or move, or kick a person out altogether.

As the owner of the server, I automatically enjoyed the highest set of privileges in the world. I was a god. Besides having all the powers of the wizards, the god can also turn the world on and off, and appoint new wizards or retract wizard privileges if a wizard does not behave according to his or her liking. The god, in other words, as the name clearly implies, is an almighty ruler of the world.

Apart from my two wizards, there was also a third member on my staff. His name was Bill and he was a bot, i.e. a character controlled by a computer script

instead of by a human. Bill served as my bartender. In addition to serving beer, he could also answer questions posed to him in a more or less intelligent manner. The fact that Bill had a distinct resemblance to another well-known Bill gave an added satisfaction to being served by him – since I sometimes felt a bit like a servant to this other Bill. The resemblance also served as a basis for the humor I had tried to code into his responses to the questions people asked him. If, for instance, someone asked him whom he loved, he would answer that he only loved money. And if he was asked if he knew what time it was, or any other question containing the word 'know', he would answer "No, but I know all the shortcuts in Word".

There are two more main characters in this story. As with my wizards, I have given them fictitious names to protect their identity. I have called them Bart and Lisa. I will not give them any further introduction here. Instead, I will begin telling my story.

4.3   Killing Bill

One day when I entered the Virtual MIT House I found to my astonishment that it had been severely vandalized. Someone had apparently gotten hold of the wizard password and used it to delete parts of the house, alter other parts, and write some very unflattering remarks on the walls. The bar was one of the rooms that had been deleted, and since the script and graphics that constituted Bill were tied to this room, he was also gone. Thus I had a potential virtual murder case on my hands.

I was more than a little irritated when I realized that Bill was gone, but above all I felt curious. What had happened and why had it happened? I decided to initiate a little investigation into the incident. I started with a look at the server log.

The system keeps track of some of the activities in the world such as when someone enters or leaves the world, tries to attain god or wizard privileges by entering a password, or when someone tries to add, extract or change something in the world. These activities are recorded in the server log together with nickname, Internet Protocol (IP) number, and time. As one might expect, the two perpetrators had not used their ordinary names, but the log still held the key to their Palace identities. The break-in had been committed by returning visitors, and the IP number uniquely identifies a computer connected to the internet. So all I had to do was to match the IP numbers from the break-in with the rest of the server log to find the names they ordinarily used.

Judging by these names they were probably a boy and a girl. I will refer to them as Bart and Lisa. I vaguely remembered Bart from a treasure hunt that my wizards had arranged in the Virtual MIT House. This had been one of the occasions when I had used video to record the interaction, so I even had him on video! To see myself happily chatting with the person I suspected of vandalizing my world was a weird sensation. It felt a bit like seeing a bank robber caught by a surveillance camera while scouting out a bank office before a hit. But although I had talked to him on several occasions and had him on video, I did not have his e-mail address and could not think of any way to get in touch with him.

As for the other perpetrator, there were two frequent visitors that used the internet service provider that Lisa had connected through during the break-in, and

one of them was Neo! Could it be that my wizard sometimes logged on as a female and sometimes a male, and that he was in fact Lisa? That would explain how the vandals had been able to log on as wizards, but there were some things that did not quite fit. Lisa seemed to be a girl and Neo was a boy, and the log gave the impression of a person that was inexperienced in the role as wizard, while Neo was a real expert.

But all of this could of course be just a clever trick from Neo, so I e-mailed him to tell him what had happened and that he was my prime suspect. I figured that if he was not Lisa, he should at least have some information as to who she was. I also told him that I was going to put their whole domain on the ban list, thereby denying all users of that Internet service provider entrance to the Virtual MIT House. He answered that he was sorry about what had happened, but that he knew absolutely nothing about it.

My investigation had reached a dead end, just like in so many detective stories. But as in almost as many stories, that was when I got help from a very unexpected source. I received a mysterious letter (in the form of an e-mail) that read: "Hi Mjson I am Fred, Neo's father. He uses my e-mail, so I have decided to become involved in this issue. I met Trinity the day before Neo did and she was going around offering a lot of people the prospect of wizardship at V MIT. One of those people was Bart!!!".

This story takes place in a time (some five years ago) when not every teenager had his or her own e-mail address. So Neo had been using his father's address in his communication with me, and apparently his dad had kept an eye on our correspondence. He was himself an avid Palace user, and although he had not gotten all the details right, his information was crucial to cracking the case, especially the e-mail I received three minutes after the one quoted above. It simply read "One more note. Lisa is Neo's sister".

Fred later mentioned that it was when I threatened to cut off the access to the Virtual MIT House for the whole family, that he decided it was time to step in. He explained that Lisa was actually Neo's eleven-year-old little sister and that she had probably not been fully aware of the results of her actions. What I initially had believed to be a murder turned out to be more of an involuntary bot-slaughter. I made a deal with Fred to let him take care of Lisa's sentencing. He cyber-grounded her for one month and asked me in return to refrain from banning the whole family. Fred also gave me some information as to the reason for this incident – but Lisa had more or less just gone along for the excitement. The brain of the operation and the key to this mystery was Bart.

I felt a bit like I was holding up a prize catch to the camera when it had suddenly slipped out of my grip and back into the water. I needed to get hold of Bart and it was not going to be easy. Whenever I saw him he discreetly left the world we were in. Once again I needed help, but this time I had a better idea about where to get it. I started by meeting with one of the wizards of the main world of the Palace universe. He promised to help me organize a multi-world ban of Bart if he did not turn himself in. While Bart surely could stand not being able to visit the Virtual MIT House, a ban that would in effect keep him from meeting any of his Palace friends would be a very potent punishment. The next step was to spread the

word about the meeting and my plans, among my and Bart's mutual Palace friends. My plan worked. It did not take long before he came to see me.

Bart's explanation for his actions was that Trinity had promised him to become wizard in the Virtual MIT House. When he found out that this had been an empty promise he wanted revenge. His plan had initially been to only destroy things that Trinity had made. But things had gotten a bit out of hand and some additional property had been damaged. He seemed absolutely terrified by the risk of getting banned in all the big Palace worlds. He said that he preferred to be grounded physically to getting cyber-grounded. After all, the virtual worlds was where he had most of his friends and where he spent most of his free time. My feelings towards Bart had up to this meeting been annoyance rather than anger, but when I met him, I realized for the first time that I was not completely without blame in this affair myself. I had taken on my wizards in a rather random fashion and had probably not bothered to be very clear about the fact that I did not have any intention of bringing on any more. To me this wizard business had never been a big thing, but to some of the people out there it had been an important career opportunity.

I had become a God by installing and executing the server software. To me the responsibilities of being a god were mainly technical in nature; I had to keep the server running. But I also had the power to appoint people to important positions within the little community that had emerged and to punish inappropriate behavior. By controlling the technical system I had been given responsibility for the community without fully realizing it. I had underestimated the social responsibility of being a god. I decided to go easy on Bart and only ban him from the Virtual MIT House for one month. We were both very satisfied with the conclusion of the whole affair and shook hands before leaving the meeting.

4.4 Analyzing Virtual Worlds

The rest of this chapter will use this story to discuss some basic characteristics of social virtual worlds. I would like to begin at the end by reflecting on Bart's comment that he would rather be shut out from the physical world than from the Palace worlds. This comment stands in stark contrast to numerous studies claiming that computer-mediated communication is very limited compared with face-to-face communication. In an attempt to make sense of this contradiction, I would like to take a look at some underlying assumptions of these studies.

Experimental psychologists performed a number of studies comparing face-to-face communication with different kinds of mediated communication in the 1970s (see [1] for an overview). The explicitly stated purpose of these studies was often to look for negative psychological effects from the use of communications media. Face-to-face communication was used as the 'gold standard' that mediated communication had to live up to or be rejected. The idea that mediated communication could also have social or psychological advantages over face-to-face communication was not even considered in these experiments. Instead, their starting point was to decide which types of meetings could safely be electronically mediated, and which ones had to be performed face-to-face.

These experiments were based on a positivist approach to social science, which meant that the effects of using communications technology had to be tested in laboratory experiments in order to be controllable and reproducible. This sometimes led to situations bordering on the absurd, such as having research subjects holding conversations wearing cardboard masks to test the importance of nonverbal facial cues [1]. In taking communication out of its context, these experiments also failed to take into consideration that different forms of mediated communication normally require a period of adaptation to the medium before the participants can use it to communicate successfully. Moreover, the experiments were mostly about problem solving, information finding or decision-making – and measured quantitatively with speed and efficiency as success factors. This again relates to the preferred research method, but also to the expected context of future uses which were strictly work-related.

This positivist, decontextualized, and work-related view was also shared by Daft and Lengel [2] in their formulation of media richness theory. They argue that the communication richness of a medium is an invariant and objective property of communications media, and once again they rank face-to-face communication as the richest medium. They also state that their theory was originally formulated to help address issues of information processing in organizations. Media richness theory has had a strong impact on studies of computer-mediated communication and within the field of information systems research during the 1980s and early 1990s, but its popularity has recently experienced a decline [3].

One of the clearest findings of the studies of mediated communication in the 1970s and 1980s was that mediated communication might be a good way to conduct formal meetings among people who already know each other, but it is an inadequate way for people to share emotional content, let alone develop meaningful and long-lasting relationships [1, 4]. Based on these studies, the lack of non-verbal cues, such as body language and speech intonation, would make it difficult to convey complex emotional content using a system like the Palace. In addition, having to type everything you want to say would make communication inefficiently slow.

Since the Palace is a graphical system based on a spatial metaphor with graphical representations of the participants, it is also possible to use it for different types of interaction beyond communication. Widening the scope from communication to interaction, we can note that since we cannot make much use of our physical body in the Palace, the gap with the gold standard of physical interaction becomes even wider. It seems clear from this research that this medium is so limited that it is confined to offering a second-rate copy of interaction in the physical world. So why would someone like Bart choose the Palace over social interaction in the physical world?

With my background in informatics, my original research interest in virtual worlds was geared towards how to design them. But I also believe that good design must be based on a fundamental understanding of these worlds and the social interaction going on within them. And I must admit that I myself had a hard time understanding what was really going on in virtual worlds when I started visiting the Palace. Thus I decided that what I needed to do was to try to put my own

preconceptions aside and just hang around to try to form a basic understanding of what made this social system tick.

I wanted to form an inside view of the phenomenon before I even tried to formulate what research questions that might be interesting to pursue. My approach stands in contrast to the traditional research approach to mediated communication, which takes an outside position. The inside view is both about adopting a contextualized approach – and about actually stepping into the medium that I am studying. By spending time on the inside, I started to see the solution to the paradox of the amiability of this poor interaction medium.

The first thing I realized was that Palace participants do not want something that adequately mimics the face-to-face interaction of the physical world. The whole point of the virtual world is that it *is* different. The fact that you do not have to reveal your face and body to the people you are interacting with is a core feature of the Palace and a fundamental influence on the social interaction. It certainly does have its drawbacks. It is for instance harder to tell if a person is ironic or sincere without cues from intonation, facial expression etc. Nevertheless, the opportunity to present oneself to others as a graphical image of one's own choice is clearly very compelling to many people. The possibility to conceal unwanted cues such as blushing, stuttering, or talking with an accent is never considered in quality estimations of mediated interaction, and is therefore lacking from the outside view.

But can the possibility to hide the physical body behind a digital image really be something good? Isn't this deception? Yes, it certainly has an element of deceit, but so has wearing clothes and make-up, for instance. Goffman [5] has shown that we constantly put considerable effort into presenting ourselves to others in a way that we hope is as favorable as possible. In doing so we will typically take on a number of different roles; one for holding presentations, one for chatting in the coffee room, etc.

Virtual worlds give us the opportunity to take on yet another role, a role that has certain properties that face-to-face interaction can rarely have. I know from my own experiences that playing this role can relieve tension from otherwise pressing situations, and I also know from my interviews that it can help people with different disabilities to interact with other people without standing out, or feeling pitied. And, not least, it can actually be quite a lot of fun. Having said this, it must be added that this particular feature of virtual world interaction can also cause problems. Many of these stem from difficulties in maintaining the distinction between the presented self of another person – and what dwells behind that presentation.

This effect, according to Reeves and Nass [6], applies to a wide range of new media. They found, as the title of their study indicates, that people generally deal with media with human-like qualities as if they were dealing with actual people. We do, for instance, have a tendency to unconsciously treat a computer politely if it asks questions politely – although we know perfectly well that it cannot feel hurt or insulted or even understand our replies. In the same way, we start thinking of a conversation partner as actually having some of the properties of his or her avatar. Just as with movies, we do *not* have to make a conscious effort to suspend belief before what we see can captivate us. Once we start chatting and moving around with our avatar, we *are there* until we consciously tell ourselves otherwise.

In addition to disregarding the new possibilities of interaction, traditional research on mediated communication also underestimates the ability to adapt to the medium and work around the problems that it imposes. From the inside, it becomes apparent that it is necessary not only to change *how* we do things, but also *what* we do. Here is an example of an activity which was triggered by the inherent affordances of the system: one day a person changed her avatar name into a short sentence, so that it was shown beneath the avatar where the name usually is. I do not remember exactly what it was, but it was something silly like: "I'm with stupid ~>". She then positioned her avatar next to her friend's avatar. The friend of course responded by putting something like "Me too!" in his nametag. It was not long before the whole room was a long chain of avatars jointly creating elaborate sentences using the text space intended for their names.

This example appeals to me because it not only shows that virtual worlds have unique properties that can and will be woven into the interaction, but also shows how the participants of a world take part in the construction of their environment by extending the uses of built-in features of the system beyond the original intentions of the designers. Most importantly, it shows how the possibilities of a system, in this case a creative collaborative environment, emerge when people appropriate the system in a way that is very easily overlooked when making a priori assumptions about what a medium can be used for, such as work-related meetings, before starting to study it.

Both Neo and Trinity as well as Bart and Lisa had tried the Palace and found a place where the social interaction in many ways was different from the one in the physical world. Instead of worrying about the fact that problem solving was slower than in face-to-face interaction, or that non-verbal cues were harder to get across, they started to experiment with the system and found qualities that were unique to the medium. That was why access to this social arena was so precious to Bart.

4.5   A Game of Life?

A common conviction among people who have no first-hand experience of virtual worlds is that it does not really matter what happens in a virtual world because, after all, it is not for real. "It's just a game." I don't have a problem in understanding this attitude. After all, seeing someone engaged in interaction in a virtual world looks very similar to seeing someone playing a computer game, and the large virtual worlds systems available today tend to borrow their aesthetics from popular culture, such as cartoons or science fiction. But appearances can be deceptive. In a virtual world, sticks and stones can't break my bones, but that does not mean that I would take no notice of someone trying to throw stones at me or beat me with a stick. My mind and my emotions are present, and virtual actions can work as causes of effects on my mental state that are as real as anything I might experience in the physical world. Dibbell [7] makes this point very effectively in his much-discussed account of an incident of virtual rape in LambdaMOO.

I can see how it must be hard to understand how strong the emotional involvement in a virtual world can be. Picturing a person sitting in front of a

computer screen seems to signal distance and detachment, and in the terminology of virtual reality this situation would be characterized as entailing a low degree of immersion. Only a few of the senses are engaged, the level of stimuli or input is low, and outside stimuli have not been shut out. But from an inside view, another type of immersion emerges. Consider the following extract from LeValley [8].

> I danced for my cyberspace husband, whom I had recently virtually eloped with, in-world. The dancing was a delightful and deeply moving experience. I danced with a silver teapot, with a chest, with my Asian female head and with my cyberhubby's frog head (with outstretched tongue and fly) on the back of my left hand. I placed a fern on the floor of a temple room and I danced up out of it and back into it. I danced in the silence. I danced for a long time. I was fully engaged in the floating of the dance and in the act of dancing in beauty for him.
>
> The next morning, when I awoke in my primary referential context, I remembered the dancing, not only the image of the dancing but also the sensuality of the dancing. I had sensori-motor memory of the dance. I recalled the slight movement of the air on my face as I floated up and down, up and down. I remembered the funny feeling in my tummy from this movement. I remembered the feeling of my arms outstretched with objects on my hand. I remembered the silence and the way time was suspended. I remembered both the solitariness of my self expression, in this dance, as well as my deep emotional connection to my cyberhusband. And I remembered all of this in my physical waking world body.

One might think that she has tried some new incredible virtual reality system with astonishing performance, but her recollections describe an event from Worldsaway, a system fairly similar to the Palace (see Taylor's essay in this volume). According to various models for measuring presence, such as [9, 10], the above system would score poorly. Still, the experience seemed so strong. Again we have something of a paradox on our hands, and again I believe the answer lies in the assumption that what Slater refers to as "the objective world" can be used as the standard for measurement. However, in this case, her emotional state of mind seems to be a much more important factor than, for instance, the realism of the environment. And which realism would that be anyway? Would the fact that her "cyberhubby" had a frog's head matter, or would it be the degree to which the frog's head looked like a living frog?

So far I have argued that the interaction in virtual worlds is real interaction with real emotions and real consequences, but this does not make the worlds themselves real. I would, however, also like to argue that the environments and inanimate objects of a virtual world are as real as objects in the physical world – although different. Let us take one of those beers that Bill used to serve before his untimely demise as an example. Although we will not get less thirsty, and we will not get drunk no matter how many virtual beers we choose to guzzle, we all know that buying someone a beer means something more. It might serve as an invitation to a conversation, or a sign of gratitude or even friendship. It doesn't matter so much that we do not have to sacrifice any money to buy a beer; it is still precious to have someone engaging in the symbolic act of ordering a beer and handing it over to you in a virtual bar. The meaning of the act is also conveyed in a virtual bar.

But although the beer does not cost anything, it is interesting to note that the laws of inflation still work. If you order beers for everybody who enters Bill's bar, its symbolic value will be deflated. But if you instead take the time to design a custom-made drink and offer this to someone, the gesture will be more potent than offering a generic drink. The system with props that can be shared and custom-made fills a function in the ongoing construction of social life. This activity can, of course, also be found in virtual worlds without props. Perhaps this behavior will be present wherever people meet. Nevertheless, the functions embedded in virtual worlds technology influences what people will do in the world. In Worldsaway, for instance, the existence of a monetary system has made trading an integral part of the social interaction of that system.

So a beer in the Palace has different characteristics from a physical beer, but some of the symbolic significance is left intact. The symbolic significance is also very important in the use of physical objects. We frequently use these objects as equipment to try to convey a desired image of ourselves to people around us. Goffman [5] refers to objects used in this manner as sign-equipment. In the following passage, different types of beverages send different messages. Note how the limited supply is a deciding factor in the effect of the sign-equipment, just as in the Palace.

> Thus, in the crofting community studied by the writer, hosts often marked the visit of a friend by offering him a shot of hard liquor, a glass of wine, some home-made brew or a cup of tea. The higher the rank or temporary ceremonial status of the visitor, the more likely he was to receive an offering near the liquor end of the continuum. Now one problem associated with this range of sign-equipment was that some crofters could not afford to keep a bottle of hard liquor, so that wine tended to be the most indulgent gesture they could employ (p. 29).

I began this section by comparing the surface of virtual worlds interaction to playing games. By looking beneath the surface, I found that what people do in these virtual worlds is really no different from what they do at work, at home, or in bars. They are not playing games; they are living their lives.

4.6 Old Wine In New Bottles?

While some predictions about computer-mediated communication have been off course due to erroneous comparisons with the physical world, others have been wrong by thinking that social interaction on the Internet will be different from interaction in the physical world in ways they are not. One misconception about virtual worlds as well as about online life generally is that everyone is equal on the net. My experience goes counter to this belief (see also Axelsson's essay in this volume). According to Goffman [5], we form social relationships by adopting consistent behaviors over time, and we take on social roles by enacting the rights and duties attached to a given social status. When we strive for higher social status, we also accept a stratification of the social structure and develop deference towards those who have reached higher levels. The foundation of the social system is

consensus regarding values, and an assumption that the higher levels of status converge with that set of values.

The concept of social status can thus also be used in virtual worlds, and it is as important in understanding a virtual society as it is in any ordinary society. What is new is that the criteria have shifted. The set of values is different. In physical life, things like money, work and how you look is important for how people will treat you. But those things are downplayed by the characteristics of virtual worlds. The old set of values is replaced by a new. Instead of money, you need props; instead of a high status job, you need computer skills; and instead of looking good physically, you need to look good on the screen. This means that someone like Bart suddenly has a chance at becoming someone important.

I don't know very much about the real person behind the online identity of "Bart", but my guess is that he found himself elevated to a new level of social status in the Palace and recognized the opportunities that this new world presented to him. If I am right about Bart's experience, it is no longer so hard to imagine how he felt when the promise of becoming a wizard was first held out to him, only to later be taken back.

Another example of the shift in the social hierarchy is what I experienced when I started my own world. At the time I was fairly new as a doctoral student in the department and had been an undergraduate not long ago, but when I occasionally arranged some recreational activities in my Palace I became the center of attention. I could decide the rules and those who did not obey got a dose of the wrath of God (me). Compared to an ordinary departmental seminar things were turned upside-down. A young doctoral student who would ordinarily keep a low profile on those occasions could feel right at home in this environment where he would tend to dominate the meeting, while the senior researchers who often do much of the talking in the seminars were not even present.

The same phenomenon was apparent when I tried using the Palace in an undergraduate education setting. The distance between my students and myself shortened considerably in this scenario. I had made an office where they could come and get their assignments and report their results as well as a coffee room where they could hang out and chat. The coffee room worked especially well as a status leveler. They even told dirty jokes in my presence, which has never happened, before or since, when I have spent the coffee break together with my students in a physical coffee room. In short, the medium affected the discourse.

Traditional status structures are broken down and redefined, for better and for worse. This can, in turn, lead to a conflict between those who have something to gain from trying to keep the traditional structures intact as against those who want a fresh start. It is important to remember that there are no absolute borders keeping the virtual world separate from the physical world. A person who is a lawyer in the physical world but a newcomer to the virtual world is probably more prone to try to bring the conversation into the area of occupation in the physical world in the hope of transferring some status points, while a person who has attained higher status in the virtual world hierarchy but does not have very much going for him in the physical world might try to change the subject.

Another misconception about participants in virtual worlds is that they are totally anonymous. Let us say that I would have really wanted to punish Bart by

banning him from as much of the Palace universe as possible. As I have suggested earlier, I could have used the IP number of his computer. But since that computer was assigned a slightly different number each time he connected to the net, I would have had to ban not only all the people using that computer, but all the people using the same internet service providers as he did. Another way to ban him would be to put his nickname in a ban list. But since he can change his name to whatever he wishes at any time, we might conclude that this would be a poor attempt at keeping him out. But there is a catch. To escape his sentence, he would have to give up his name, and by doing that; he would also give up his identity.

This brings us back to the need to fit into the social context. Like everyone else in the Palace, Bart had built up a personal community of people around him. He had invested time and effort in the relations to these people, and these investments resided in the connections to these people in the form of social capital (a discussion of personal relations, social capital, and virtual communities can be found in Ågren [11]).

Without his identity, he would also be without the key to all the resources he had created for himself within this community. In fact, Goffman [5] notes that you simply cannot belong to a society without stability of self-presentation. Likewise, Schiano and White [12] found that there exists a social pressure in virtual worlds to maintain a stable primary identity. So, as it turns out, I would not even have had to put his name on any ban list. I could have just as well let it be known that he had done something that disagreed with the value set of the society – and he would have had to see his social investments get flushed away. The lesson here is that we are not anonymous in virtual worlds. We are held responsible for our actions. All societies, virtual or physical, demand that we contribute something in order to benefit from being part of it, and, to keep tabs on our contributions, there have to be identifiers, and without an identifier, or an identity, there will be no payback.

4.7 The Importance of Being There

So this was the tragic story of Bill the bot. However insignificant my dear bartender bot's existence might have been, at least he gave us the opportunity to catch a glimpse of the inner workings of social interaction in virtual worlds. I have argued that it is easy to make erroneous assumptions about life in virtual worlds if you are distanced from the phenomenon, and try to make predictions from the outside. Perhaps one reason for this is that virtual worlds are metaphorically problematic. It seems to be hard to intuitively understand what a virtual world is and how it works, and easy to make unfair comparisons with the physical world. I have talked about virtual worlds as a type of medium but they are unlike any other media by allowing participants to enter them and interact in a non-physical location. Virtual worlds should not be thought of as a tool for a specific purpose such as work, education, play or entertainment. The term virtual worlds is a very apt description in the sense that they, just like the physical world, are "general purpose".

In this chapter I have tried to show that the qualities social interaction in virtual worlds is fundamentally different from interaction in the physical world. Much of

the interaction that occurs in virtual worlds has no counterpart in the physical world since it is shaped by the unique characteristics of the medium.

I have also argued that interaction in virtual worlds is real. Watching someone engaged in interaction in a virtual world does look like someone playing a computer game, and we all seem to share some intuitive ideas about face-to-face interaction with other people as something important and fundamental for us humans – even if it is just chatting in the coffee room. But imagine a game that consists of the same form of interaction as in a coffee room and that is played with the same continuity. What is it then that makes the coffee room setting real and the game not? Without diving into the depths of ontology and linguistics, I think that the word 'real' is very unsuitable for distinguishing this difference.

Finally, I have argued that people participating in virtual worlds do establish persistent identities and form hierarchical social structures just like in communities in the physical world. The fact that it is hard to bring symbols of social status from the physical world into virtual worlds might lead to the assumption that social structures should be flat – but apparently we do not want it to be that way. We somehow always find ways to build social structures and ways to denote social status, and one prerequisite for this is accountability for our actions through identities.

I would like to conclude with the general observation that people continue to behave like people – whether the world around them is virtual or physical. But the technology that mediates our interaction has a great impact on the forms of interaction. This in turn implies that theories about human behavior can very well be used in this new context, but the physical world cannot be used as a yardstick for comparison.

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