"Freedom for Just One Night:" The Promise and Threat of Information and Communication Technologies

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Traditionally technology has been a male area of interest; not many novels have been written about technology from a female perspective. It has largely been true that, as Barbara Page puts it, women often have an aversion 'to computer technologies and programs thought to be products of masculinist habits of mind' (112). However, with a broadening perspective and use of information and communication technologies (ICT), a growing number of women also take interest in, advantage of – sometimes even change – the technology to meet their own requirements. Reflecting this shift, Jeanette Winterson's The PowerBook and Pat Cadigan's children's book Avatar are two examples of novels in which ICT play a major role. That women often see the benefits of a less-regulated space provided by the technology is explored in these two novels. Édouard Glissant explains how computers can generate a ''space within the indeterminacy of axioms" (84, my italics). According to Glissant, this indeterminacy opens up possibilities and "creates the opportunity for an infinite sort of conjunction, in which science and poetry are equivalent … The poetic axiom, like the mathematical axiom, is illuminating because it is fragile and inescapable, obscure and revealing. In both instances the prospective system accepts the accident and grasps that in the future it will be transcended" (85). The indeterminacy is destabilizing and together science and literature create an imaginary space where imaginative (hence ideological) liberation is possible.

Though both novels are written recently – by women – and project a discussion of indeterminate virtual space, they are in many ways quite different from each other. The PowerBook is set in a contemporary environment and Avatar in 2028. The description of technology in them varies as well: The PowerBook uses ICT predominantly as a frame, whereas technology plays a more central role in Avatar. What

they do have in common is the discussion of what ICT does to the individual and society, the way both novels explore indeterminacy and how it can be used, pondering the issue of virtual and real. With the help of these two novels my aim is to examine how technology is viewed and look at the authors' conception of its implications for identity and privacy. As I have indicated, these fictional works embody approaches to the WWW that facilitate discussion of larger issues. This is to say that analyzing these similar but different novels will enable me to address and illustrate three different issues: information and communication technology's impact on identity; privacy and security on the Internet; and also – since both of the authors are women – female views of ICT. In addition to the examples from the novels, I will use real-world examples, theories and documentation, to substantiate the examples found in the novels. Certain theories have proven valuable in explicating these concepts, especially Gilles Deleuze and Felix Guattari's concept of smooth and striated space, and the thoughts concerning real and virtual, to which a number of scholars have contributed. Later in this essay, I will further elaborate on this discussion.

For many people, as Mari-Laure Ryan describes it, the Internet, or the idea of cyberspace as such, has been seen as an interesting, dynamic environment where anything is possible (25-26), an environment that promises things like "Freedom for just one night" (Winterson 3) as the author in The PowerBook does. The PowerBook immediately foregrounds the visibility of technology, since all chapters are labeled with computer related headings such as "Open hard drive," "View," "Really quit?" and "Restart," and different stories are woven together in almost hypertext fashion. Although the novel itself has to be read linearly – there are no choices, no links to take us between the different stories – we do "jump around from one place and time to others" in The PowerBook, exactly as Jay Bolter describes hypertext (137). The computer theme, which underlines the flexibility and freedom of the technology, continues as the story begins with an e-writer called Ali or Alix – appropriately enough in an examination of shape-shifting the narrator's gender is not entirely clear – who "will write to order anything you like, provided that you are prepared to enter the story as yourself and take the risk of leaving it as someone else" (Winterson cover). Depending on expectations, situation, and time, the description of the narrator in The PowerBook changes in an indeterminate fashion, and also the costumer is free to invent a persona of his/her own choice; the real-world name, age, gender, and occupation is of secondary importance and thus the usual labels vanish. Only s/he remains, the costumer's personality, free from all real-world expectations and obligations. This is a key issue in the idea of virtual reality – the possibility to invent a persona, to become someone else – for as Matthew Causey has noted, a spectator, within the virtual environment, "is transposed into a digital space in which culturally based identities such as ethnicity, class and gender are volatile, not fixed categories. Users/operators are free to perform within the virtual system with any identification they choose; and

gender, race, and class become performative differentiation, not fixed, hierarchical assignments within a social order" (Causey 190), very much in line with the way Winterson does it.

The narrator in The PowerBook describes why s/he uses this strategy: "I can't take my body through space and time, but I can send my mind, and use the stories, written and unwritten, to tumble me out in a place not yet existing – my future" (Winterson 53). The indeterminacy of the technology and the literature provide the opportunity to test the possibilities before they actually occur, perhaps to be prepared, perhaps to influence the future with the story. At the same time the narrator destabilizes both time and space by switching between past, present and future, and by depicting the characters' travels in time as well as in space while sitting at their desk by the computer. As I have indicated, s/he also undermines the one of the most common co-ordinates of identity, by seeing the definition of gender as unnecessary (Winterson 26). The latter not only provides freedom within gender, but also freedom from gender. The story begins with a sunset in Paris (Winterson 28), where two lovers-to-be, a woman and a writer (the narrator) who is then described as a man, meet by accident, continues in Capri (Winterson 87), where the woman is with her husband, but sneaks away to see her lover, the writer, and ends in London, where it is no longer possible to distinguish whether their meeting is real or virtual (Winterson 161, 178), and where it becomes uncertain whether the writer is a woman or a man. Indeed, very little in the novel is stable or fixed. The story switches between a real and a virtual world, it reinvents itself and its characters and really works "at the intersection between the real and the imagined" (Winterson cover), and thereby a free, indeterminate space is created. The emotional impact of the indeterminate space is highlighted when the real-world catches up with the two main characters at the end of the novel. The woman – despite the warning at the beginning of the novel about the risks of being transformed – is taken by surprise by the emotions stirred by the interaction between herself and the narrator, emotions that actually are strong enough to make her lose control. She decides to stay away for awhile, but comes back wanting to know whether the relationship is real or not, and she needs physical proof of it. Meeting on the Internet is not enough for her anymore. This leads to an either/or situation – the real-world is described as less flexible than the virtual one – but one choice still remains: staying together or splitting up (Winterson 205). However, the narrator stresses that there really is no final choice, no definite ending – there is always a chance to re-write the story. This underlines the difficulty that lies in the handling of an indeterminacy brought about by the clash between something that is perceived as dichotomous – online/offline, virtual/real, emotional/technical, private/public – but also the possibilities that open up when the narrator shows that no choice is simply black/white or final.

All these dichotomies initially can be found in Avatar as well; at the beginning of the novel there is little room for indeterminacy or

freedom. It images the world of Max, a boy who has been paralyzed in a diving accident that physically ties him to his hospital bed, and he sees few choices for the future. At first the novel thus seems to be about an attempt at recovery rather than liberation. Whereas traveling is frequent in The PowerBook, in time as well as in space, virtual as well as real, and the use of computers is considered normal, Max and his friend Sarah Jane in Avatar are, on the other hand, brought up in a low-tech society, where most people never have driven a car and where the Internet is viewed with suspicion. Despite their distrust, the Council of Elders grants Max the use of high-tech prosthetics, involving the use of Internet, after his accident (Cadigan 2). Everything begins to change, and an element of uncertainty is added, when a Native American woman, Ms. Mankiller, enters the story. She is Max's instructor when he learns how to use the rig (to see and hear with the aid of the camera and microphone of Sarah Jane's Websuit) the choice of Ms. Mankiller as Max's instructor is revealing: Since the instructor is a woman and, moreover, not a member of their society, gender roles and social hierarchy are turned around.[1] As a consequence, both Ms. Mankiller herself – and what she teaches Max – are at first seen as suspicious and strange in the novel. In Max's society, technology is thus degraded and seen as little more than a necessary evil, and its view seems to be that only marginal people who do not really belong would condescend to use it. It is thus a challenge for Ms. Mankiller and Sarah Jane to shake the rigid habits of thinking.

While teaching Max to use the technology, Ms. Mankiller also shows Max a path towards freedom in a sense and he begins to rely on the link "or his access to the outside world" (Cadigan cover) – his only alternative to lying alone in the darkness. Sarah Jane and Ms. Mankiller both highlight the female role in this novel: to question, destabilize and offer alternative viewpoints. Sarah Jane and Max have formed an intimate relationship through the rig and have become familiar with each other's ways of thinking. Since they know each other so well, Max becomes alarmed one day when Sarah Jane acts out of character and soon he discovers that the reason for this can be found on the Internet, where he is not supposed to be. As a consequence, Max now takes a step further into the world of technology and his instructor, Ms. Mankiller, has to explain a lot more about the Internet to him than the Elders actually want him to know. Max reluctantly learns from her – he does not really trust her – which further underlines the Elders' distrust of technology and the way Max has internalized his society's opinion of ICT and virtual reality as something alien/other.[2] Highlighted too is the fact that it is two women who, ironically enough, technically empower Max.

As the examples above show, the view of technology in Avatar is much more complex than the comparatively positive and uncomplicated outlook on ICT seen in The PowerBook, and in Avatar this is very much connected to body and identity. It is difficult for Max to mobilize the flexibility needed to function well on the Net – it

is implied that this would be the case everywhere except within the environment he is used to – and when he is thrown into the Internet, he sees it as a very unsafe place and feels ill at ease when he is there. Max's inability to adjust is further underlined by his somewhat defensive reaction when things go wrong on the Internet: at one time he has no exit command (Cadigan 60) and is therefore unable to leave, to go back to his body; at another he is told by Ms. Mankiller about the "glitches" on the Internet, "[c]aused by the presence of things in the Web that were never meant to be there" (Cadigan 61), which is the reason for Sarah Jane's real body being hijacked by an alien – the real-world Sarah Jane is not really her at all. Max reacts with insecurity and is thrown off balance. The real Sarah Jane is trapped on the Web, with only an avatar as visible form, and thus both Sarah Jane and Max are not people in a physical sense – neither of them can use their physical bodies – but she adapts to this much more easily than he does. Sarah Jane's flexible way of thinking gives her a more advantageous position on the Net and she is the one who begins to think about, and in fact who redefines, the concept of identity: She realizes that her identity is not limited to her physical body and begins to experiment with avatars. In contrast, the shifting of body/avatar feels very strange to Max and he protests when Sarah Jane on the Web tells him about her plans to make an avatar for herself of, in Max's words, "a cross between a spider-Web and Stonehenge after it had been moved to Egypt to be with the pyramids" (Cadigan 64).

Sarah Jane's explanation that this would be a "concept ... of location" (Cadigan 64) rather than a body is not very well received by Max, who has difficulty defining what an individual really is, even though this can be seen as equally crucial to him since his own body does not function. Sarah Jane comes up with a solution, arguing that a person exists when people believe in her/him. She thus turns the definition of an individual from a physical into an emotional one, and Max is forced to agree: "No doubt about it, this was the real Sarah Jane – and boy, how weird was that? The real one being the cartoon in the Web and the fake being the flesh-and-blood avatar in the real-world" (Cadigan 62). Their meeting establishes that the relationship between Max and Sarah Jane is real, no matter what environment their meeting takes place in. What convinces Max – and the reader – is the emotional reaction Max displays. Where the woman in The PowerBook wants physical proof of the relationship, this is not possible in Avatar. Emotions become the deciding factor, the method of authentication.

Thus the patriarchal and hierarchal norms Max is used to do not apply on the Internet; the indeterminacy and emotional aspect of the medium and the situation, where all his prior knowledge is questioned, frightens him. However, even if he at first wants to distance himself from the unknown as much as he can, he gradually integrates the new thoughts in his view of the world and becomes more tolerant towards new ideas. He is helped on, and helped by, the

Internet, for instance by being given "binocular vision" – the use of both eyes, which helps him to focus and estimate distance – something he hopes he will be able to bring that back with him to the real-world (Cadigan 50). Along with the reader, Max is thus, both literally and metaphorically speaking, encouraged to gain a more balanced view of technology, to see Internet from a different angle and is also given a choice to take advantage of the indeterminacy available. Furthermore, Max also realizes and accepts that others might use and see the technology in other ways than he himself chooses to do. He understands that there is a choice and at the end of the novel makes a choice to live his life in the real-world – "I want to feel the sun on my face. I want to smell the wind. I want to be too warm sometimes and too cold other times. I want to go outside" (Cadigan 92) – but he also accepts Sarah Jane's life-style on the Web, since he knows that they are both real and he believes in her and knows that she believes in him (Cadigan 94).

Though they have very different starting points, both The Power Book and Avatar show that there are choices and possibilities for a flexible construction and conception of identity and environment, which corresponds to Glissant's idea of indeterminacy and can also be connected to a discussion about space and how it is structured. In the novels, especially in Avatar, the Internet is a virtual, seemingly topographical, space. Depending on the viewpoint, various metaphors have been used to describe these "digitally networked computers" that Internet consists of: regulated, linear and point-to-point oriented – "the information superhighway" (Richards 52)— or a "nomadic and fluid" space, a Web, where it is possible to "surf" around – the World Wide Web or cyberspace (Nunes 62-63). However, as Cameron Richards points out, "specific metaphors may not necessarily mean much when seen in isolation, but in their specific contexts of usage are often useful indicators of underlying attitudes and preconceptions" (53). This can be seen when Mark Nunes links these two different views to Deleuze and Guattari's ideas about smooth and striated space. Smooth space is considered to be without centre, open, flowing, variable and flexible, much like Glissant's idea of indeterminacy. Using navigation as a metaphor: in a smooth space it is possible to go anywhere, as someone could at sea. To some people this seems too uncontrollable and therefore not safe (Nunes 64 - 65), and they would prefer a more controlled environment. Deleuze and Guattari call these more controlled spaces "striated." Their structure is grid-like and they have their origins "in the Enlightenment desire to define natural, political, and ethical laws that would render 'the world' comprehensible and controllable" (Deleuze and Guattari qtd. in Nunes 63). According to Deleuze and Guattari all states strives for control in a striated way (Deleuze and Guattari qtd. in Nunes 63). There is always a certain tension between the smooth and the striated: "In the same way that the semiotic machine of a striated topography must continually attempt to bring singularities into the gravitational pull of the State, smooth topographies must continually move to overflow all attempts to make the field 'productive'" (Nunes 72).

Smooth and striated space is in a continuous battle; in a smooth space there is always something striated, and vice versa (Nunes 74). The concept of smooth and striated space thus can be applied to the Internet in terms of both the way we "travel" on it and the discussion of control and security, facilitating my examination of the tension between smooth and striated on the Web.

In both novels Internet primarily is seen as smooth, but the reaction to this varies. In the opening of The PowerBook the reader is invited to a smooth world – "an invented world ... Undress. Take off your clothes. Take off your body. Hang them up behind the door. Tonight we can go deeper than disguise" (Winterson 4). This exemplifies the temptation that lies in the escape from the real-world: a thought that there might be something better waiting when letting go of the normal for awhile. There is an urge to look for another world in order to find the hidden treasure as the narrator in The PowerBook puts it (Winterson 146). In this way the temptation and benefit of a smooth space is clearly visible in The PowerBook, whereas the Elders in the Avatarian patriarchal, low-tech society see precisely the same situation on Internet mainly as wild, unregulated and emotional, an escape – with negative connotations – from the "good" norms this society stands for, and therefore an unsuitable habitat for its citizens. The Elders thus represent an approach that prefers striations. As a consequence they want to regulate the use of ICT – openly or in more concealed ways. Max describes how he "was actually using the rig exactly the way the Elders said was wrong – to escape from reality into reality" (Cadigan 17), even when this is the real-world on both occasions, though not his own real-world lying in bed at the hospital.

There are a number of similarly striated views in the world today. In a study of social representations of the Internet, Malin Svenningson connects this to the fear of the unknown and the concept of moral panic:

> Societies appear to be subject, every now and then, to periods of moral panic. A condition, episode, person or group of persons emerge to become defined as threat to societal values and interests; its nature presented in a stylized and stereotypical fashion by the mass media, the moral barricades are manned by editors, bishops, politicians and other right-thinking people: socially accredited experts pronounce their diagnoses and solutions; ways of coping are evolved or (more often) resorted to; the condition then disappears, submerges or deteriorates and becomes more visible (85).

The participants in Svenningson's focus group "expressed somewhat differing views and opinions of the medium: from something frightening and menacing to a time-consuming but mostly harmless waste of time. What the participants had in common was the view of the Internet as an abnormal way of getting in contact with other

people" (89). Svenningson speculates whether this view might be due to the fact that the focus group, undergraduates at a Swedish university, is quite well-established in society: "For a socially accepted person with few problems, the advantages [with identity switches] might seem exaggerated, since he or she has no need of trying a new role, but for those regarded as deviants by society, the situation might look quite different . . . . According to the focus group, the Internet is badly arranged, boundless and difficult to use. They also explicitly express their fear of being caught up by technology" (97-99). They consider it to be "a false reality" (Svenningson 94) that ought to be controlled in some way (Svenningson 96) – very much like the opinion of the Elders in Avatar.

In Virtual Realism Michael Heim points out that a few people go even further and are openly hostile towards technology; one example is the so called UNA-bomber, sentenced to life in prison for killing three people and severely injuring twenty-three people, among them Yale Professor and computer scientist David Gelernter (34). Only seven months prior to the mail bomb, Gelernter ironically enough warned Heim about the gulf that is opening up between those who embrace new technology and those who refuse to have anything to do with it (Heim 33). Luckily, such reactions do not occur frequently, but it nevertheless says something about the frustration and insecurity some people experience in a high-tech environment.

Negative reactions towards technology are not uncommon, and many people know of and can sometimes also relate to these views. Slightly less well-known is how the technology itself is striated on the Internet – and how it also can be quite easily controlled and changed according to the wishes of governments or other interested parties. There have always been standardized technical solutions in hardware and software, and also in the way Internet protocols govern how information is packaged and sent on the Web. The organization Against TCPA writes about a rather controversial example right now on their Internet site – a technology called "Trusted Computing" which was launched in 2000 on some PCs in an attempt actually to map the computers on the Internet (againsttcpa.com). The Trusted Computing Program was initiated by the US Government with the aim

> to establish a sound scientific foundation and technological basis for managing privacy and security in a world linked through computing and communication technology. This research is necessary to build the secure and reliable systems required for today's and tomorrow's highly interconnected, information technology enabled society. The program funds innovative research in all aspects of secure, reliable information systems, including methods for assessing the trustworthiness of systems (National Science Foundation).

The use of this technology is mainly described to reduce peer-to-peer distribution of, for instance, mp3 music, movies or software (Schechter et al), but it can in fact give those who control the technology complete access to the content on any computer with Internet access (againsttcpa.com). This technology would thus increase the "security" for software developers, movie and record companies, but it would at the same time reduce the freedom and security for the individual user.

Computer and Internet security can, however, be interpreted in another way: to enhance the privacy for the individual user in a smooth manner, as an attempt to go around rules and regulations imposed upon the individual. According to Helena and Stefan Lindskog, and the Common Criteria organization, "[t]here are four kinds of privacy-enhancing technologies (PETs)"– anonymization, pseudonymization, unlinkability and unobservability (8). Without looking too much into the technology involved, the focus will now mainly be on pseudonymization, which is what "teenagers use when they use weird Hotmail addresses to communicate with people they do not know. Pseudonymity also occurs when you create an account with your favorite Internet chess club, calling yourself 'Bobby Fischer II' or when you play Quake as 'The Mega Wizard" (Lindskog and Lindskog 8). When drawing parallels to the novels looked at for this essay, I conclude that this is the privacy strategy in The PowerBook, where the characters invent personas, avatars, at the beginning of the novel. They establish parameters – coordinates – such as name, gender, look, and location, which are not necessarily the "real-life" ones. Also, Max in Avatar encounters several avatars when he finally gets the opportunity to surf the Internet: the eagle-sized crow who is the avatar of Ms. Mankiller (Cadigan 52), and that of this friend, Sarah Jane, looking like a cartoon version of her real-world self (Cadigan 62).

The Merriam-Webster definition of an avatar is "an electronic image that represents and is manipulated by a computer user (as in a computer game or an online shopping site), ... an image that a person chooses as his or her 'embodiment' in an electronic medium." A need for privacy is not visible in any of the characters' choices of avatars in the novels, which can be compared to the way teenagers often choose "weird Hotmail addresses" without really thinking that they do it because they want to feel safe. If asked, a teenager might say that it is self-evident that he or she would not let anyone unknown have their real name or address (Lindskog and Lindskog 8). It can be concluded that the avatars definitely are seen as symbols of identity – or the different identities the characters choose to take on – but perhaps also a kind of safety net in the novels. The Web address is clearly easier to give away for the narrator in The PowerBook than the real address (Winterson 161).

In a smooth space fluctuating identities are seldom a problem, and, as shown above, they can even be considered a safety measure. A

striated approach, on the other hand, requires fixed and distinct identities, and this thought can also be extended to concepts. According to Marie-Laure Ryan the concepts in the field of information and communication technologies have often been inadequately defined and this, in combination with the mix of virtual and real that Internet has become, might provide further understanding of why some people think the Internet ought to be regulated. Ryan argues that the media has often used Cyberspace as a synonym for Internet (85), but the two concepts are not entirely identical and can best be described if they are compared to a third: virtual reality. Cyberspace is described as an idea and has a number of properties not possible in the real-world: it is "traveled by jumps and seemingly instantaneous transportation;" it is infinite; it is equally accessible from all over the world; and it "cannot be mapped" (Ryan 86). Virtual Reality (VR), on the other hand, has more to do with technology and can be described as an

> artificial environment created with computer hardware and software and presented to the user in such a way that it appears and feels like a real environment. To "enter" a virtual reality, a user dons special gloves, earphones, and goggles, all of which receive their input from the computer system. … The term virtual reality is sometimes used more generally to refer to any virtual world represented in a computer, even if it's just a text-based or graphical representation (Webopedia).

The latter definition is applicable when Ryan asserts, "If a virtual reality is an imaginary world in which we play a role, there are countless pockets of virtuality on the Internet" (85). It can be argued, however, that if VR is "an imaginary world in which we play a role", there are countless pockets of virtuality anywhere, not only on the Internet. And, as Ryan also points out, Internet cannot simply be regarded as a virtual reality system, since many of its uses are directly linked to the real-world: stock-market information, checking the library catalogue, or doing business (85).

Real and virtual often stand against one another, especially in the context of ICT, and this gives further examples of a striated approach. Ryan has noticed how "[t]he opposition of the virtual-as-fake to an implicitly authentic real has prompted two types of reactions. One of them is a rejection of the fake, leading to a backlash against electronic culture ... The other reaction is one of skepticism regarding the concept of real life and its alleged authenticity" (90). Ryan has focused mainly on the idea of virtual and real, but Michael Heim makes the following physical and very down-to-earth distinction between the two concepts: "The difference between real and virtual realities resides in three constraints that 'anchor' us in the real-world: our inevitable mortality, the irreversible direction of time, and a sense of precariousness arising from the possibility of physical injury" (Heim 136). That there is a difference between meeting IRL (in real

life) and meeting on the Internet can be illustrated with this dialogue taken from The PowerBook when the woman asks

> "Where do you live?"
> "You've got my Website."
> "Meatspace not cyberspace" (Winterson 161).

When following these examples the difference between virtual and real can be defined as physical, which connects to the discussion in both novels. However, Avatar also plays with these "inevitable" constraints, for instance in the hi-jacking of Sarah Jane's body. Sarah Jane is "alive," not in her body but on the Internet, and there she could also be "killed." If the computer she is on were to crash, she would die even though her body – which is not hers anymore – would still live.

Some scholars want to see the physical world as the only world, and object to the idea of Internet as a virtual world, finding it of little use or interest. Kevin Robins claims that VR is an illusion in itself; what has been called a virtual world is no "alternative, more perfect world in cyberspace" (36). He sees it merely a part of the real-world and governed by commercial interests. In this case Robins seems to equate VR with the Internet, but as Ryan has pointed out, all of Internet can hardly be called virtual, and this underlines the problem with definitions. Robins also objects to the claim that infinite creation is possible in the virtual world and stresses that the old wish to escape the physical body and social roles in the real-world is the only reason for wanting to participate in a virtual reality, which is similar to the viewpoint of the Elders in Avatar. Robins argues that everything is the way it always has been – "[o]nly the technology is new" (38). Max's comment in Avatar exemplifies his society's view on the topic and describes his mixed feelings like this: "The world out here has so many problems, it feels like a sin to turn your back on it and go play in something that's just a hyped-up theme park" (Cadigan 29). Internet and VR are seen, by both Robins and the society in Avatar, only as a relatively harmless waste of time, which also is very similar to the way the students in Svenningson's study think of it.

Nevertheless, not all scholars are so certain of the triviality of VR; indeed, some display a deep concern that the virtual world can have a detrimental effect on the real-world. It is feared that it will erase the boundaries between real and virtual. In Jacques Derrida's words, "electronic mail today […] is on the way to transforming the entire public and private space of humanity, and first of all the limit between the private, the secret (private or public), and the public or phenomenal" (Derrida 17). Mark Poster argues that the doubling of the real – the virtual – "puts the original into question: the virtual upsets the stability of the real in ways that were perhaps unintended but certainly unwanted" (42), and this could be a reason for the strong reactions against the image of a smooth or non-striated Internet. As mentioned above, the woman in The PowerBook feels threatened by

the upset stability and disappears for awhile as a result. When the narrator asks her why she disappeared, she answers,

> "To save my sense of self. You make me wonder who I am."
> "Who are you?"
> "Someone who wants the best of both worlds."
> "So you do believe in more than one reality?"
> "No. There's only one reality. The rest is a way to escape" (Winterson 104).

This exchange exemplifies the difficulty some people experience when they come in contact with the indeterminacy: they become afraid of the lack of rules to hold on to. To push it even further, Baudrillard says, "to cap it all, simulacra have become reality" (qtd. in Poster 46). In The PowerBook, the narrator tests reality: "It's only a story, you say. So it is, and the rest of life with it – creation story, love story, horror, crime, the strange story of you and me ... I can change the story. I am the story" (Winterson 4-5). If the virtual has become real, then it could be argued that this makes it possible to change the real, to change everything. Winterson takes the opportunity to investigate whether it is possible or not to alter the perception – the viewpoint – on the environment and thereby somewhat alter the environment itself.

Thus Jeanette Winterson steps outside the real/virtual dichotomy, abandoning the either/or position to see what happens when the two realities influence each other; indeed, both novels highlight the possibility of transformation that lies at the point of intersection. In Avatar a tarantula who lives on the Internet makes this point, when asked about the real-world: "Which world is that?" ... "You mean your Realworld. Whatever world I'm in is the real-world" (Cadigan 51). Some people, like Michael Heim, indicate that the smoothness of the mix of real and virtual provides a learning environment. He claims that "[c]yberspace is more than a breakthrough in electronic media or in computer interface design. With its virtual environments and simulated worlds, cyberspace is a metaphysical laboratory, a tool for examining our very sense of reality" (Heim 83).

As indicated above, both novels show how the sense of reality is tested when an emotional response is triggered: because of the emotions, the woman in The PowerBook cannot simply disregard the "virtual" connection that has been established between herself and the narrator, and in Avatar emotions are in fact a method to authenticate the validity of what happens in a virtual environment. Emotions on the Net are thus a major – and not always safe – issue in the two novels. Though some researchers argue that true personal and emotional social encounters do not exist on the Web (Svenningson 79), others, like Michael Adamse and Sheree Motta, disagree completely: "there are enormous amounts of feeling on the net", and in fact consider "the Internet ... a safe zone in which people can meet

and get to know each other in a controlled way. On the Internet they have the possibility to keep their integrity and leave the interaction without risking sanctions and pressure" (qtd. in Svenningson 79). This is a possible scenario, but as pointed out before, the emotions evoked are not always easily controlled. So far most safety issues concerning computers have involved technological security or property rights issues, but the two novels highlight the aspect of emotional safety on the Web. Some people feel safe in Cyberspace when meeting people anonymously – the woman in The PowerBook describes the ease with which she connects with strangers: "A stranger is a safe place. You can tell a stranger anything" (Winterson 37). Svenningson has noticed the intimacy that can develop when people meet on the Internet: "Despite (or maybe because of) [cyberspace's natural constraints which facilitate the keeping of distance from other users] the Internet seems to be a medium that encourages people to open up at an earlier phase and to get more personally involved than they would have had the interaction been performed IRL" (Svenningson 79). The woman in The PowerBook obviously wants to have a certain distance between herself and other people, which can be a reason why she prefers deep conversations with strangers to talking to people she knows well, and this provides a feeling of safety for her. What she fails to see at first is that even strangers become well known to each other sooner or later, on the Internet as well as IRL, and this is also what happens to her in the novel. At the threat of emotional involvement she disappears, but returns later and faces the relationship that has already been formed. Her reaction is exactly the opposite of Max's in Avatar. Max wants safety, and for him this depends upon a well-known real-world environment where "people believe in me" (Winterson 92), as he says at the end of the novel. He at first rejects the Internet since he believes that there can be no real meetings, no real relationships, there, but he is forced to reconsider after having met his friend Sarah Jane on the Web.

These novels suggest, in fact, that emotional responses to events on the Internet can actually transform people. Max's views are changed by what he experiences on the Web and the narrator in The PowerBook describes a similar development, where the different characters in a virtual environment influence each other: "I warned you that the story might change under my hands. I forgot that the storyteller changes too. I was under your hands" (Winterson 83). At the point where s/he loses track of his/her customer s/he describes how s/he "trawl[s] [the] screen like a beachcomber – looking for you, looking for me, trying to see through the disguise. I guess I've been looking for us both all my life" (Winterson 64). Meetings via the Internet can be as emotionally involving as real life. Jay Bolter and Richard Grusin attempt to domesticate the situation by arguing that it is the same for most media, especially film—"like other media, virtual reality can provide its own self-authenticating experience" (165)—but unlike most other media, the meetings in a virtual environment often are synchronous meetings between two or more

people. In fact, Svenningson stresses how the use of "expressions such as virtual meetings and virtual relationships might ... be misleading. ... The other participants and the relationships that might be formed to them [in computer games] are not less real than the persons we meet and the relationships we form off-line, while the phenomena that can be found only in the game could not be described as real" (81). Thus Svenningson differentiates between the actual meeting and the environment in which it occurs, exemplified by the authentic experience of Max and Sarah Jane's meeting on the Web in Avatar and the love story between the narrator and the woman in The PowerBook.

In The PowerBook words have great influence, and the narrator is fascinated by the actual meeting – by the process and impact of the dialogue. This dialogue could happen anywhere, on the Net as well as IRL, which shows how reality is constantly being negotiated:

> "How do you seem to write me to myself?"
> "I am a message. You change the meaning. I am a map that you redraw"
> (Winterson 109).

or

> "I'm sitting at my screen reading this story. In turn, the story reads me."
> "Did I write this story, or was it you, writing through me?" (Winterson 209).

This highlights the difficulty in defining what is real when everything constantly changes, and can happen in real life as well as in a novel. Sender and receiver influence each other and see each other's viewpoints in a dialogue. A well-known fact among media scholars is that the message can be altered in the mind of the receiver, colored by what he or she has seen or experienced before (Hadenius and Weibull 13), and the receiver can be altered by the message as well. The narrator in The PowerBook shows, as a story within the story, how the narrative alters the two main characters emotionally and the story itself is described as "a tightrope between two worlds" (Winterson 119). This implies that it would be possible that the transformative character of the virtual might "spill" into the real. The characters, and thus also the reader, can be transformed by what they read or experience, and the content of the novel – and also what happens in the real-world, as the novels suggest – is limited only by the imagination of the "author(s):"

> "You could rewrite the story."
> "I've tried. Haven't you noticed?"
> "Isn't there a better ending than either/or?"
> "I can't write it" (Winterson 133).

The narrator stresses, "The world is a mirror of the mind's abundance" (Winterson 223).

Even though this happens in a novel, it is implied that the emotional impact could be the same in a real-world situation. Ryan continues on this thread: "Taken to its limits, the metonymy could even affect the concepts of the self and the real: if technologies construct subjects, then cyberspace users become virtual selves; if they construct the real-world, this world becomes another virtual reality. Virtual technologies thus become virtualizing technologies" (88). But this could be possible to turn around as well – if it is possible to virtualize the real, there should be a similar process when realizing the virtual. If the physical aspect is what separates the virtual and the real, the emotional aspect – of a story for instance – could be the tightrope that binds them together. Emotional response seems to be seen as the proof that something is real, but is at the same time also used as a tool and part of the strategy for making it real.

Winterson and Cadigan may have different strategies when showing us virtual societies, and their reasons for doing so might vary as well. The narrator in The PowerBook describes the strategy openly: "I was typing on my laptop, trying to move this story on, trying to avoid endings, trying to collide the real and the imaginary worlds, trying to be sure which is which. The more I write, the more I discover that the partition between real and invented is as thin as a wall in a cheap hotel room" (Winterson 93, my italics). In this collision a smooth space is created as a result of the destabilization of our emotions. As a writer, the narrator works with multiple realities all the time:

> When I sit at my computer, I accept that the virtual worlds I find there parallel my own. I talk to people whose identity I cannot prove. I disappear into a Web of co-ordinates that we say will change the world. What world? Which world? It used to be that the real and the invented were parallel lines that never met. Then we discovered that space is curved, and in curved space parallel lines always meet. The mind is a curved space (Winterson 94, my italics).

In the process of writing the narrator makes use of, colonizes, the indeterminate space in the minds of the characters, where the worlds collide or the lines meet, and the same formula can be used to challenge any idea. Both authors address and challenge patriarchy, for instance, both of them have chosen to write about technology, at first seen as a thoroughly male dominion, and they let it collide with a female, smooth approach, which can then be used to destabilize this dominion. Bolter and Grusin have noticed how "virtual reality, which would seem to be the ultimate technology of the male gaze, can also undermine that gaze" (240) when women use it for their own purposes. To some women, the idea of the virtual has become the space where it is possible to change the world, the place where male

norms and rules can be questioned and perhaps altered. In their quest for being heard in the public debate, women often have used more concealed ways than men, operating in a smooth space outside rules and regulations decided by men (Jurich xvii).

Female authors have looked for this place for centuries, just as Jeanette Winterson does, with the aim of bending the rules of a patriarchal society in order to gain more freedom: the 17th-Century poet Anne Bradstreet does it, the 19th century writer Margaret Fuller does it in The Great Lawsuit, and Virginia Woolf does this both in Orlando and in A Room of One's Own (Wåhlström Bäcke 4), to name a few. What they all look for is a kind of smooth space, where nothing, including themselves, is fixed, labeled or placed into neat little boxes. The narrator in The PowerBook describes the strategy like this: "To avoid discovery I stay on the run. To discover things for myself I stay on the run" (Winterson 3, 157) and s/he uses the technology to implement this strategy. Similar to Woolf's Orlando, Winterson avoids pinning down the gender of the narrator, even though she drops certain hints about when the gender of the narrator changes from male to female: in Capri the narrator is at first referred to as "Ali?" (96) and thereby male, whereas s/he on the very next page is referred to as the "Inglesa" – the English woman (97). The narrator constantly argues for the possibility of becoming, as opposed to being: "We think of ourselves as close and finite, when we are multiple and infinite" (Winterson 103) – and thus indeterminate.

Cadigan does not play games with the gender of the characters, but she addresses gender from another angle: The ones who more readily adopt the technology are Sarah Jane and Ms. Mankiller, whereas Max and the Elders are more reluctant, almost unwilling, perhaps because the technology to them has become a female dominion. The women in the novel see the change of identity as thought-provoking and even desirable, while the men seem more threatened by the idea. The gender roles seem to be traditional in the low-tech society where Max and Sarah Jane live; therefore women can be considered, in Svenningson's terminology, "deviants" by society, and this might also be a criterion for the Elders' conservative approach towards ICT. The women, at least Sarah Jane and Ms. Mankiller, want to broaden their traditional roles and see more advantages with the use of ICT. When discussing avatars and identity, Sarah Jane, as mentioned before, tries to expand the definition of identity and links it with location and ecology: "Location is a lot of things. You're located in time, in space, in ecologies, as seen by others … Every group, every system, every organization has an ecology to it" (Cadigan 64-65). She argues that identity is flexible and can be changed depending on the environment, and sometimes also changed to fit the environment, the way women often change to fit into a patriarchal society. Women have been located in and by the male gaze. The important part in Avatar is that this time Sarah Jane herself chooses the avatar she wants. She chooses the way she is going to be perceived and challenges the conventional images. Avatar shows that change can be

a matter of choice, that it is possible to test different identities and ideas in this "laboratory" called Internet, that women can be in charge of this, and that they can use this to promote a more balanced view.

In sum: Both Jeanette Winterson and Pat Cadigan seem to be fascinated by the indeterminacy and smooth space they find in the technology, and furthermore, as the examples in this essay show, they use this smooth space to address issues that might have been difficult to address otherwise. Both authors use their novels very much like Michael Heim's idea of a laboratory to test ideas and, first and foremost, the emotional impact these might have on both the single individual and society at large. In these laboratories they explore the tension between smooth and striated, which can be said to lie behind all the three issues studied in this essay. The privacy and security aspect can be seen from different viewpoints, depending on a smooth or striated approach. The technology itself is striated and determines a lot of what is possible to do on the Internet, and also to what extent it is possible to remain anonymous. The freedom sought for in The Powerbook can therefore be said to be an illusion, at least the way technology looks today and keeping in mind the direction it seems to be heading towards. There are people working with the technology in a different direction, however, and the privacy-enhancing technologies might provide means for the individual user to slip out of the grid at times. As Nicholas Negroponte states, the Internet is developed with "no apparent designer in charge",XXX and even if the technology of the Internet is striated, the content of it does not need to be. Whereas the technology has been quite easy to control, the content has proven to be more difficult to regulate. For some people like Sarah Jane, who is oriented towards a smooth way of thinking, this is perfect. She enjoy the freedom to express her views, adapts easily to new and very different conditions, and is furthermore in a position to take advantage of them. On the other hand, people can also misuse this freedom, and this frightens the ones who, like Max or the Elders, are in need of a more striated approach. An individual's sense of identity is negotiated in this and the feeling of safety is tested. Freedom and security are perceived differently by different people – something that is made very clear in the novels and by scholars interested in these issues – and this highlights the difficulty of defining words like "freedom" and "security:" Freedom for whom? Security for whom?

A similar difficulty is evident when trying to define real and virtual. As shown in this essay, people look at these concepts from different viewpoints and some of them display a kind of moral panic at the thought; meetings via the Internet are seen as abnormal or false, or simply a way of escaping the real-world. To others this way of connecting to other people is free and without demands, exactly because it is not a part of the real world. Kevin Robins argues that VR is really a part of the real world, governed by real-world commercial

interests and therefore insignificant, but as Svenningson argues and the novels show, the meetings and communication on the Internet are very real, especially from an emotional perspective. The Internet – and thoughts mediated through the Internet – influence individuals and societies. A number of times the authors thereby contradict the idea that there is a virtual reality entirely separate from the real world; the point where the idea of VR seems to crash is where involvement becomes emotional. Even if people meet when playing roles on an Internet game, decide to write a private story in an invented world as the writer and the woman do in The PowerBook, or meet as Max and Sarah Jane do on the Web, the meetings there are real. It is a true meeting between individuals, and therefore it is not surprising that people react just as emotionally to things that happen on the Internet as they would in everyday life. They might or might not change as persons by encounters on the Internet, just as they would have done in everyday life when coming in contact with new ideas or new viewpoints. They might hide their real-world names or characteristics behind an avatar, but their meeting is nevertheless real, only relayed through a different medium with other features than the newspaper, telephone or television.

As a new medium, Internet can be considered new territory, a new frontier. For the last ten years or more a number of questions have been asked: Who colonizes Cyberspace? What rules are to be applied to this new territory? Will it be smooth or striated? These questions surface in both novels, but they can also be found in real life, in hubs and discussion forums on the Internet. The hub owners are usually the ones who decide the rules, if you violate them you are usually banned, and the decision process is seldom a democratic one. But not all spaces on the Internet are regulated. There are still plenty of opportunities to express views not shared by everyone and to find people who share your views on almost any subject.

Both Jeanette Winterson and Pat Cadigan seem to be aware of the opportunities in the smoothness still available with ICT and on the Internet, and they use their characters to highlight this, which contradicts Robins' view that "[o]nly the technology is new" (38). The novels show that ICT actually has the possibility to be a tool in the transformation of society. The female characters all see the Internet as less regulated and confining than the real world, and cherish the freedom they experience online. They seem to want the real world to be more like the Internet, and they use it as an example of an alternative worldview which upsets the existing one. The battle between smooth and striated thus can be seen in the authors' ideas about information and communication technologies and virtual worlds. When the existing worldview has been shaken, they are then in a position to point towards a more balanced viewpoint, where more than one angle is taken into account.

Under all the issues looked at in this essay – identity, security, and the feminine perspective – lies the question of freedom, the freedom to be

whomever you want to be. These novels tell us that it is still possible. The Internet is not yet "colonized", but it is time to decide what road we want to take. Do we want it to be smooth or striated? Moreover, the novels show that ideas on the Internet do not exist in a separate universe; they are the thoughts real-world people think, and as such they also influence the real-world. Do we want the real-world to be smooth or striated? Perhaps the best answer is not either/or, but rather both. These novels also show that it is in the dynamic tension between smooth and striated that new viewpoints can be found.

Notes

[1] The name Mankiller is an old Cherokee military title that was given to the person in charge of protecting the village. A famous member of the Mankiller family is Wilma Mankiller, who in 1987 was the first woman ever to be elected chief of the Cherokee Nation (Powersource).
[2] See e.g. http://www.culture.com.au/techtonic/self/future2.htm for among other things an extended discussion and bibliography of computer technology and otherness.

Works Cited

Adamse, Michael & Sheree D. Motta. *Online Friendship, Chat-Room Romance and Cybersex: Your Guide to Affairs of the Net*. Deerfield Beach: Health Communications, 1996
Against TCPA. 4 Oct 2003 A http://www.againsttcpa.com/tcpa-faq-en.html.
Bolter, Jay David. *Writing Space: Computers, Hypertext and the Remediation of Print*. Mahwah, N.J.: Lawrence Erlbaum Associates, 2001.
Bolter, Jay David, and Richard Grusin. *Remediation: Understanding New Media*. Cambridge, Mass.; London: MIT Press, 1999.
Bradstreet, Anne. *The Prologue*. *The Norton Anthology of American Literature*. Ed. Nina Baym. New York: Norton, 1998. 247-248.
Cadigan, Pat. *The Web: Avatar*. London: Dolphin, 1999.
Causey, Matthew. "Postorganic Performance: The Appearance of Theater in Virtual Spaces". Ryan 182-201.
Chaib, Mohamed, ed. *Perspectives on Human-Computer Interactions : A Multidisciplinary Approach*. Lund: Studentlitteratur, 2001.
Derrida, Jacques. "Archive Fever: A Freudian Impression". *Diacritics* 25.2 (1995): 9-63.
Fuller, Margaret. *The Great Lawsuit: MAN versus MEN*.

WOMAN versus WOMEN. The Norton Anthology of American Literature. Ed. Nina Baym. New York: Norton, 1998. 1592-1626.
Glissant, Édouard. *Poetics of Relation*. Ann Arbor: U of Mich P, 1997.
Heim, Michael. "The Erotic Ontology of Cyberspace". Benedikt 59-80.
---, *The Metaphysics of Virtual Reality*. New York and Oxford: Oxford UP, 1993.
---, *Virtual Realism*. New York and Oxford: Oxford UP, 1998.
Hemer, Oscar, and Jan Olof Nilsson, eds. *ITransformation: kulturen i den virtuella staden*. Lund: Aegis forlag, 1998.
Jurich, Marilyn. *Sheherazade's Sisters: Trickster Heroines and Their Stories in World Literature*. Westport: Greenwood, 1998.
Lindskog, Helena and Lindskog, Stefan. *Web Site Privacy with P3P*. Indianapolis: Wiley, 2003.
National Science Foundation. "Program Announcement/Solicitation: Trusted Computing (TC)". 4 Oct 2003 http://www.nsf.gov/pubs/2001/nsf01160/nsf01160.html.
Negroponte, Nicholas. *Being Digital*. London: Hodder and Stoughton, 1996.
Nunes, Mark. "Virtual Topographies: Smooth and Striated Cyberspace". Ryan 61-77.
Poster, Mark. "Theorizing Virtual Reality: Baudrillard and Derrida". Ryan 42-60.
Powersource. "Wilma Mankiller". 4 Dec. 2003 http://www.powersource.com/gallery/ people/wilma.html.
Richards, Cameron. "Metaphor, Education and Computer Interaction". Chaib 50-71.
Robins, Kevin. "Cyberrummet och världen vi lever I". Hemer & Nilsson 34-56.
Ryan, Marie-Laure, ed. *Cyberspace Textuality: Computer Technology and Literary Theory*. Bloomington: Indiana UP, 1999.
---, *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media*. Baltimore: John Hopkins UP, 2001.
Svenningson, Malin. "An Antisocial Way to Meet: Social Representations of the Internet". Chaib 72-107.
Wahlstrom Backe, Maria. "To Catch Sight of Her and Then Again to Lose Her: Trickster Behaviour in Virginia Woolf's Orlando". C-essay. Karlstad University, 2003.
Webopedia. "Virtual Reality." 14 Oct 2003. http://www.webopedia.com/TERM/v/virtual_reality.html
Winterson, Jeanette. *The PowerBook*. London: Vintage, 2000.
Woolf, Virginia. *Orlando: A Biography*. 1928. London: Penguin, 2000.
---, *A Room of One's Own*. 1929. London: Penguin, 1993.

Contact Women Writers
