Web Woman:

The on-line construction of corporate and gender images

Eva Gustavsson and Barbara Czarniawska

GRI, School of Economics and Commercial Law at Göteborg University

October 2003

WEB WOMAN: THE ON-LINE CONSTRUCTION OF CORPORATE AND GENDER IMAGES

Abstract

One of many interesting applications of information technology is "business on the net" and, within this trend, the appearance of virtual females whose job it is to assist customers by giving advice and delivering information. These creatures raise a host of interesting questions about corporate image, but also about humanness and femininity. Who or what do they represent? The companies that produced them? Their designers? Society's dreams – both open and forbidden? While we cannot aspire to provide final answers to these questions, we do try to formulate the questions in this paper and frame them in contexts that seem to be promising.

The origins of this paper can be traced to our interest in new types of services, especially those mediated by information technology. Following this phenomenon through on-line research, we encountered a fascinating study object: female personal assistants on the Web. Who or what are these creatures, and who do they represent? The companies that bring them to (virtual) life? A software producers' image of professional service? of femininity?

We begin with a brief reminder of the traditional picture that binds women to services. Has this picture been modified or replaced through the introduction of virtual services? In order to approach this question, we begin with an introduction to the "virtual setting" — the Web — and continue with some reflections on methodology. Then we present examples of female assistants, and try to interpret them relating our close readings to the issues of corporate image and gender construction.

The handmaid's tale: A stereotypical image of women and services

As Tyler and Taylor (2001) have suggested, the ability to perform emotional labor has become strategically important for service industries since they have become infused by aspirations for personalized service and service of quality. These aspirations can be also detected in the service management discourse, which, beginning with the expansion of the private service sector in the 1970s, has been strongly engaged in the organizing and co-coordinating of front-office employees (see e.g. Czepiel *et al*, 1985).

Several students of service practices have argued that even though service providers in general are both male and female, most service roles are gender-segregated (Hochschild, 1983; Leidner, 1993; Tyler and Taylor, 2001). In 1970, for instance, 81.3 per cent of traditional service work that involved "substantial amounts of emotional labor" was performed in USA by women (Hochschild, 1983:240-241). Has it changed since? Tyler and Taylor showed in their study of the airline industry that female employees are more often found in the front office, i.e., in service roles that require emotional investment (p. 60). A similar observation has been made earlier by Robin Leidner in her study of McDonald's and its group of "window workers", most of whom were women (1993:181).

Consequently, it can be argued that managerial initiatives such as the creation of service routines have had greater impact on women than men employed in services because of the former typical position in front office (Tyler and Taylor, 2001). Most traditional service routines were originally based on "best practice", i.e. they were modelled on interactions that were considered to be common sense (Gustavsson, 2000). In addition, these routines draw upon "widely accepted understandings of how men and women think and behave" (Leidner, 1993:181). Considering the prevalence of female front-office employees, it is not surprising that the managerial discourse on service management is underpinned with what Tyler and Taylor (2001:69) call "gendered assumptions about the 'natural' skills and capacities of women and men". In the airline industry they studied, women were considered to be "naturally" better equipped to perform service of quality. Bente Rasmussen (2001) reported the same finding in four private and public service organizations she studied. Hence, the stereotypical image of female service providers seem to be related to equally stereotypical gender differences in real-life personalities. In Leidner's (1993:198) study, for example, men working at McDonald's claimed that the front office was better handled by women because men were "naturally more explosive" and therefore less competent in interacting with difficult customers.

This stereotypical image of female service employees can be summarized as a natural disposition to perform services according to a caring script (see e.g. Gustavsson 2000). Women are "by nature" better in "anticipating the needs and (exceeding the) expectations of others" (Tyler and Taylor, 2001:71); which places them firmly in front-office operations. In Bradley's (1989:9) words, front-office jobs are sex-typed.

As with most stereotyping, the image of female service workers has little if any correspondence with actuality. It is possible that emotional service work was originally conducted according to the individual disposition of the employee. Increased management interest in front-office operations and the resulting interventions, however, made these stereotyped "female" versions of caring and empathy into standard components of a service script. Is this script reproduced or subverted in the virtual service setting? We begin with a short characterization of such a setting.

The virtual setting

The Internet is commonly described as a revolution in communications, in that it offers a new forum for exchange and interaction between people and organizations. Businesses of all sorts move part or all of their services from people, telephones, and fax machines to interactive websites. Initially, websites were simple text-based information interfaces, but they are now better understood as "some new form of public space" (Jones, 1997:25). And thanks to technological advancements, website designers have become more attuned to the requests of their website users. Also, it is now rather common to see human-like personal assistants performing services on the Internet. These *animated interface agents* "appear on the screen as embodied characters and exhibit various types of life-like behaviours, such as speech, emotions, gestures and eye, head and body movements" (Dehn and van Mulken, 2000:2). Unsurprisingly perhaps, most of the human-like animated interface agents are female.

We suggest that there are at least two reasons for the increasing popularity of humanoid assistants, apart from the obvious fact that the technology is available. First, there is a "business case" that has to do with the service management agenda. Second, there is a "persona effect" claimed by, among others, researchers in the area of human-computer interaction (see e.g. André and Rist, 2001; 2002).

From a business perspective, one can claim that the replacement of humans by machines began very early. In a famous article from 1972, Theodore Levitt made it clear that in order to secure profit and quality, services should be standardized, and preferably performed by machines, not humans.[1] Teller machines, Internet bank services, autopilots, voice-navigated telephone services, self-check-in and self-check-out machines, and staffless motels exist to prove him right. The trend toward *system-oriented services* (Ritzer and Stillman, 2001) is obvious, and the replacement of humans by virtual, interactive agents as providers of standardized services seems to be the logical continuation of the same trend. It has been argued, however, that not all customers necessarily appreciate the increasing role of technology in their services, and that the conceptual factors established in research on face-to-face interaction may not be relevant for understanding people's contacts with humanoids (Bitner *et al.*, 2000). Consequently, say Bitner *et al.*, these are

---

[1] For a historical review of the role of standardization in production, and consequently in the managerial revolution, see Shenhav, 1999.

important issues for service researchers to study. Nevertheless, cost reduction and quality improvement are the effects of virtualization of services that are typically taken for granted:

> Improve customer satisfaction and cut costs with Kiwilogic's virtual interactive assistants (…) With a virtual interactive assistant from Kiwilogic, your customers will receive friendly and competent service 24 hours a day (…) for a fraction of the cost of a human customer services assistant. (www.kiwilogic.com, a software producer of virtual assistants)

Service providers have therefore responded to promises of the financial and quality improvement that can be achieved by trading human service for computer interaction. This promise has been further supported by the latest research in human-computer interaction. Beginning in the 1990s, a special line of research was established to improve human-computer interaction by computer mimicking of human behavior (see e.g., André, 1999). This research has resulted in several new software products (see André and Rist, 2001, for a review) that promise to make the trade even less troublesome for service providers in the future.

In short, the sofware providers argue that animated interface agents mimicking human behavior will improve human-computer interactions because "they allow us to draw on communication and interaction styles with which humans are already familiar" (André and Rist, 2001:53). Other researchers are less optimistic and claim that the above statement is a "general and rather vague idea" (Dehn and van Mulken, 2000:4). Indeed, as we shall see, there is a controversy over the interpretation of this statement, and how the "persona-effect" is actually created.

From our perspective, virtual assistants and human-like representations on the Internet are not solely a matter of financial profits, quality, technology, or improved communication. There is at least one important line of reasoning open for inquiry. Virtual assistants are supposed to be expressions of the organization and its service offerings. Corporate websites, as all visible parts of a corporation, are supposed to reflect the competencies, product offerings and image of organization behind them (Schultz *et. al.*, 2000) – in the prevailing consumer culture, "organizations compete based on their ability to express who they are and what they stand for" (ibid:1). Hence, constructions of virtual human representatives ought to be as carefully monitored as staffing procedures

are. Furthermore, the contemporary consumer culture has forced corporations to organize their activities around an image of the customer in that "[t]he presumed 'needs', 'desires', and 'aspirations' of customers are to be inscribed into organizational practices and technologies (…)" (Du Gay, 2000:70). Thus, in the manner of a two-way mirror, animated interface agents are assumed to have the ability to provide corporations with an identity, even as they reflect the users' images of themselves as consumers.

Before we present some examples of virtual assistants and analyze their role as co-producers of identities, we offer some methodological reflections on on-line and off-line research. After all, as noted by Turkle (1995:324), "Virtual reality poses a new methodological challenge for the researcher".

On line, off line: Promises and problems of computer interaction research

As a field of organization study, the Internet has the unique advantage of being within the reach of everyone with access to a computer. Following the tradition of service management, computer interactions on corporate websites could be modeled as service encounters (see e.g. Czepiel *et al.*, 1985), in which two or more parties interact to produce services in a virtual space. From this perspective, the Internet represents a place where cultures are formed and re-formed. Ethnographies of "everyday life in the Internet" have typically been using the Internet-as-culture metaphor in their descriptions of such website inventions as MUDs, newsgroups, bulletin boards, and role-playing environments (Hine, 2000:14-27). However, this approach becomes problematic if it is based on an assumption of some sort of corresponding "real" culture or "real" identities – that is, some target group of individuals that are identifiable from either their off-line or their on-line identity. Sherry Turkle, in her study of virtual identities solved this difficulty by inviting MUDers in her neighborhood to a series of pizza parties, and by visiting places like computer laboratories and programming classes where she was likely to meet the kind of users she was looking for (Turkle, 1996:323).

Turkle described her approach as "conservative" and with a "real life bias" (ibid:324) because she used only material from people that she has met off line. One could say that in this way she "realized" the virtual groups, but in doing so reduced the unique character of virtual interaction to an interaction that signals only the "real one". As noted by Christine Hine (2000:28), the on-line reality is both produced and consumed in multiple

locations and institutions and by many individuals. But how is it possible to comprehend the virtual world in relation to the real world unless the former is properly anchored in the latter? One possibility is to escape the duality and assume that "the virtual world" is simply a part of the "real one". Life on line and life off line are connected, but do not necessarily mirror or express one another.

It could also be argued that the Internet-as-culture metaphor neglects important aspects of its construction (Hine, 2000:39). The space and its offerings are there for the culture to feed upon, but the *organization* that pre-guides its actions has already been put into place, and its *coordinating devices* are hidden "behind" the screen. One could say, borrowing from the service management agenda, that Internet as culture resides in the front office (on line or off line), whereas the decisive action takes place in the back office (on line or off line), and the two are separated in time and space. True enough, "virtual reality offers a pure form of 'organization' in which every decision and action is completely, and literally, accountable" (Smith, 1998:229). Still, the coordination of the technology for Internet-based service encounters is out of reach for laypeople like ourselves, even when we are given computer access.

To overcome these dilemmas, Hine (2000:27-38) proposed a complementary perspective — treating Internet as cultural artefact. In doing so, she drew on the work of Grint and Woolgar (1997), for example, who treat technology as texts, and suggested that the Internet could be seen as "textual twice over: as a discursively performed culture and as a cultural artefact, the technology text" (Hine, 2000:39). Thus, the Internet comes to be treated literally rather than metaphorically, a part of culture.

To see virtual assistants as cultural artefacts fits well with our interest in other types of identities. Such a perspective also permits us to study how people in the back and front offices and on line and off line ascribe meanings to interactions, whether purposely or not. As to validity of our readings of such interactions, we assume that our experiences of the virtual assistants are not idiosyncratic, as we are all confronted with similar interfaces. As manifestations of culture, these virtual assistants are supposed to relate to people's everyday understanding of what they represent — may it be gender, professions, or specific competencies. Thus, we do not claim that our readings are typical or representative — merely that they are as good as any other.

In regards to the examples used, it should be noted that the exact number of virtual assistants on the Internet is unknown, and that, to our knowledge, there is no systematic method for tracking them. We encountered our examples through seminaries, newspapers articles, and advertisements. We have encountered several more virtual assistants than these presented here, but have specifically chosen these because they best illustrate the issues we wish to discuss: humanness, gender, service. Must "good service" be produced by human beings? Are women "better" in producing services?

What is human? Olga

Olga is a machine-made *persona* authored by five organizations (two departments in the Royal Institute of Technology, one department at Stockholm University, and one public and one private company) and produced by several computers and a considerable amount of software. One of the authors saw Olga for the first time at a Winter School organized by the Art and Communication Center at Malmö University 24-26 November, 1998.

> Olga is a three-dimensional animated figure that the user can speak to. She helps the documentation user find and sort information from databases. Olga may also, on her own initiative, for example give advice and tips..

The goal of the Olga project was to test multimodal user interfaces, combining technical system speech with direct manipulation. This is what Olga actually looks like. The model was made with Alias/Wavefront, and the Olga figure contains 4356 polygons.
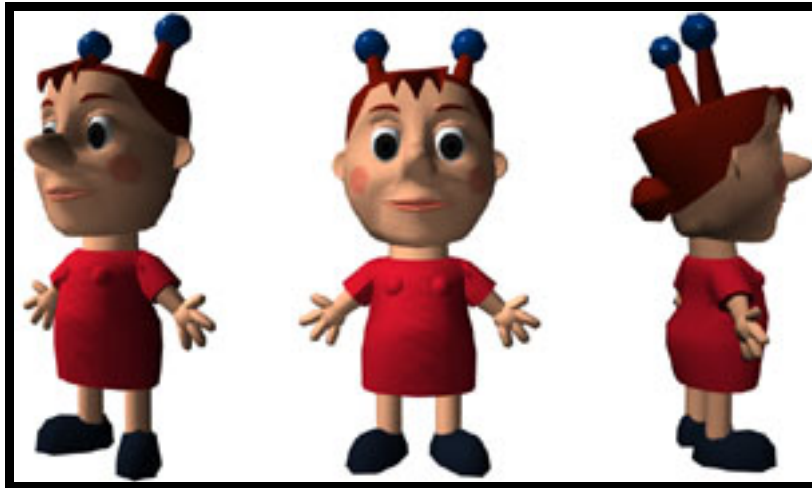
Olga is presented by CID NADA KTH, THM KTH, Lingvistik SU, SICS, & Nordvis AB. Created 970701. (http://www.nada.kth.se/~osu/olga/).

Olga is meant to be a personal assistant with whom one can interact, and conference participants were told that they would soon see many more of these assistants helping people to navigate through the abysses of information. They will search the Web and help people decide such things as, in Olga's case, which microwave oven to choose.

In the meantime, Olga's creators shared with the conference participants the problems they encountered in creating an artificial identity. There was an interesting conflict between the linguists and the designers. The linguists insisted that in order for Olga's speech to be understood, she must be made as human-like as possible. Her lip movements, in particular, had to correspond to those of a living human. The designers (and the conference audience) were of the opinion that the animated Olga, as seen in all the pictures but the last one, was much more human-like and attractive. The audience reported feeling that the humanoid Olga (last picture) looked like Frankenstein's monster and that her lips moved like his. This opinion was not idiosyncratic, but was corroborated by the long and extremely successful experience of animated movies. Animated cartoon figures do not have to represent humans to be perceived as being human-like.[2]

The linguists remained unruffled in their belief in mimetic representation. The conflicts between the notions of "natural" and "conventional" realism (Mitchell, 1986; 1994) have

---

[2] *Who Framed Roger Rabbit?*, a Steven Spielberg-Disney co-production, pitched "toons" (animated cartoon figures) against human actors for the first time, with great success (Katz 1993:39, Gagne 2001).

been re-enacted on yet another stage. The conflicting parties differed in their opinion about what constitutes "human": is it that which expresses our collective notion of humanity or that which copies the traits of a human body?

The process of creating Olga is a good illustration of the problems that may emerge in the future. There is a conventional issue of cooperation among different organizations which is more prominent than ever before, as organizations act within networks of organizations and frequently dissolve and re-establish their boundaries (Brunsson and Sahlin-Andersson, 2000). There is the less conventional issue of differing perceptions of what constitutes "human". There is also an unconventional issue regarding that which machines permit their creators to do: what type of technology is required to achieve the effect of humanness? The constructors of walking humanoids at MIT or Chalmers Technical University in Gothenburg are deeply involved in theoretical discussions and practical experimentation around these issues (Nordin, forthcoming).

From an organization theory point of view, it is important to note that Olgas will represent companies, but that they will also reflect what the software people believe to be an attractive and effective service person. Are Olgas going to be omniscient experts or cute little women that a client can treat patronizingly? Seeking answers to such questions, designers activate collective repertoires of images of such specifics as effective service personnel and clients' wishes, but also more general concepts like men, women, human beings, and machines.

What is a woman? Ananova

We became interested in Ananova when she was announced as a virtual financial news presenter, created by New Media, a daughter company of the British Press Association. She then changed her profile to that of a general news presenter, but we stuck to Ananova because she provided us with an interesting answer to our question as it applies to Olga. Ananova is to be an omniscient expert *and* a cute little woman to which a client can relate in a patronizing way. Her looks have been carefully crafted with green hair and a darkish complexion that render her racially

and politically correct. At the beginning she was also equipped with a personality description:

<div style="border:1px solid black; padding:1em; text-align:center;">

ANANOVA'S PERSONALITY - WHAT MAKES HER TICK?[3]

Ananova looks, acts and behaves like any human newscaster - in fact some might say she has a *warmer personality* than many of the real ones!

... **The volume of information** in the networked world of the 21st century **holds no fear for Ananova**. But it is her human side that makes her the perfect go-between for man and machine. She has been programmed as *28 years old, 5ft 8ins tall, with a pleasant, quietly intelligent manner that makes people feel relaxed when they engage with her*. In reality **she may be hyper-intelligent and capable of carrying out thousands of tasks a second**, interacting with many different people at the same time - but *she's not a show-off...*

despite her best efforts, she sometimes has problems comprehending the human world. Humans defy sheer logic and do the most peculiar things. *Ananova finds this amusing, often bewildering, but always fascinating...*

in many ways she is like a small child learning to understand her new surroundings. And just like a child, she is light-hearted, full of fun and curiosity. She doesn't exhibit any of the less desirable adult personality traits like arrogance, cynicism and deceit. Self-importance and pomposity aren't in Ananova's emotional toolkit; she just gets huge satisfaction in delivering the latest news as quickly as possible to millions of people.

she loves sport, though it's often the statistics that really turn her on. *She has an unparalleled knowledge of football trivia* - everything from who won the FA cup in 1933 to what percentage of David Beckham's goals come from free kicks. And *she adores cricket* - ever since she was hooked up to the official computerised scoring system that puts her directly in touch with scorers' laptop pcs at every cricket ground. ....

Ananova knows she is different and understands her limitations. ...

Ananova will never catch a cold or break a leg, but she does live in fear of electronic bugs.

</div>

Italics and bold letters trace our close reading of the text. The italicized text describes the perfect female – perfect, that is, according to the standards of the perfect female tradition that we thought belonged to the past – somewhere in the USA during the 1950s: a female with a warm personality, never competing with men, and ever prone, if not to admire them, at least to be amused by them. Childlike (no threatening feminist she!), she thrives on the vicarious satisfactions of serving and nurturing, and truly and deeply loves

---

[3] www.ananova.com accessed 00-03-24. This page no longer exists, possibly because of the authors. When one of the authors presented the other author's reading of Ananova's personality at a conference about identity in Copenhagen in May 2000, one of Ananova's creators happened to be in the audience. She was reportedly aghast at the possibility that anyone could see Ananova as an "American housewife of the 1950s".

football and cricket (which reminds us that we are not in the USA in the 1950s but in the UK in the 21st century). What does the bold text stand for, then? Certainly not a perfect male, no matter what generation. No, but the perfect employee: one who knows all and can do everything, but who will never embarrass a boss. One who understands his/her personal limitations. One who never catches a cold or breaks a leg.[4] Actually, one who has neither a body nor a gender (Acker, 1992; Benschop and Doorewaard, 1998). Ananova has a gender, but no body, not even a virtual one, and therefore is half an ideal woman, and half an ideal worker.

We do not assume that Ananova was intentionally fashioned to meet these strict criteria. We assume that her creators simply expressed what is taken for granted – and what they considered to be relevant for a female employed in services, because that is what Ananova was supposed to be. But there is another peculiarity in Ananova, at least in the eyes of a service researcher: Ananova does not seem to *do* much. From a planned financial news announcer, she has become a general news broadcaster, which may sound like an important promotion. In practice, however, a visitor to her site discovers a rather ordinary page of news, signaled by appropriate headings. Those who wish to listen to Ananova's reading direct themselves toward a small screen and are rewarded by repeated update messages from RealPlayer. Experience indicates that these messages ought to be ignored (no amount of updating will remove them), and, with patience, one can see a thumb-size picture of Ananova, mouth moving Olga-like, voice difficult to follow; so switching back to the news with its better pictures seems to be an obvious choice. So, whom and how does Ananova serve? We found a possible answer to this question when scrutinizing yet another virtual woman in services – Hera Qraft.

What is a female financial adviser? Hera Qraft

Hera Qraft started her career as a real-time analyst in December 1999, when HQ.SE (a Swedish finance corporation) introduced its e-business. Hera was their figurehead, but she was removed from that position in 2001 when HQ.SE merged with Avanza, one of the major Internet brokers in Sweden at the time. She introduced herself in the 1999 annual report as follows[5]:

---

[4] For a history of a formation of an ideal employee, see Jacques (1996).

[5] "The original text is in Swedish: "Jag heter Hera Qraft och är nyanställd på HQ.SE. Ett av kraven för anställning var att jag skulle vara tillgänglig – 24 timmar om dygnet. En enkel uppgift eftersom jag är

My name is Hera Qraft. I am a new employee at HQ.SE. One of the requirements for this employment was twenty-four-hour-availability. For me this was easy because I am digital. Technology made by technology people for technology people is boring. Expert trading in stocks and funds should be easy. Therefore I am here at HQ.SE to act as your virtual adviser when you are using our web-services.

Despite the fact that Hera was digital and that she worked in a technically advanced medium, she had little respect to technology. She thus became a defender of simplicity and a reminder to programmers who wanted to boast about their technically advanced solutions. She seemed to have been successful in her job, as proved by the fact that HQ.SE has received a prize for the best e-businesses (*Affärstidningen Vision*, 2000/18).

If one looked beyond the quotations, the images, and the interview published on the site, however, Hera ceased to exist. Whereas Olga and Ananova are dependent on the ongoing interactions among designers, technicians, technology, and software, Hera had no such dependencies, as she never reached a state of animation. Hera had only performed as a two-dimensional image, but her employer had had plans to animate her, so she could become a more vivid, and therefore more convincing, representative of the firm (*Dagens Nyheter*, March 17, 2000:B3).

Unlike Ananova, Hera did not have a personality or hobbies. She was strictly business, which made her, by comparison, a rather boring character. That could have changed as well, because her employer's ambition was also to make her "one of the people". What kind of "people" Hera should be identified with seemed to be an open question at HQ.SE. Was the golf course or the soccer field most likely to be her turf? (*Dagens Nyheter*, March 17, 2000:B3)

---

digital. Teknik gjord av tekniker för tekniker är trist. Det ska vara enkelt att vara fond- och aktieproffs. Jag finns här på HQ.SE för att fungera som din virtuella rådgivare när du använder dig av våra nättjänster. Titta gärna in på www.hq.se och upptäck fördelarna. Välkommen!" (Annual Report HQ.SE Fonds, 1999)

Despite the fact that Hera was less innovative and less technically sophisticated than Olga and Ananova, HQ.SE's site attracted some attention in the media because of her. *DN* journalist Nicholas Wennö (2000) and photographer Andréas Olof Hagström (2001) both noted that her name and some of her features bore a resemblance to the virtual Superwoman – Lara Croft.

Twin or *alter ego?* Hera Qraft and Lara Croft

Lara Croft may not be familiar to a broader public, but those who like to play adventure games know her as the heroine of the computer game *Tomb Raider*. Lara started her career in 1996, when *Tomb Raider* was launched by Core Design, an English computer company. The game was an instant success, and has since been awarded prizes in several categories, including "Game of the Year" and "Adventure Game of the Year" (www.eidosinteractive.co.uk/ tombraider). Today, Lara is a business in which human models sign contracts to impersonate her (see www.laracroft.com/model). Furthermore, the movie "Tomb Raider" opened in the summer of 2001, and its sequel "Tomb Raider, the Cradle of Life" two years later. She has by all standards become a cult phenomenon, and the number of "Lara pages" on the net is immense. This is what she looks like in action:

A character that would captivate the player and lead him/her through an epic adventure…somebody that the player could relate to, even sympathise with or feel the need to protect from danger.

(From "The story so far 1", www. eidosinteractive.co.uk/tombraider)

Lara Croft is frequently mentioned as the role model for virtual women in general, and the Ananova and Hera creators have been accused of copying her appearance. Spokespersons for both companies have taken exception to the suggestion that there is any resemblance between their virtual women and Lara Croft (*Dagens Nyheter*, March 21, 2000:B3), yet the names Hera Qraft and Lara Croft are practically homonyms. The issue of similarity or difference between the physical appearance of Ananova and of Lara Croft is more complex. One could see them as opposites: whereas Lara's body image is, as Donna Haraway (1991:149) would say,

truly "historically constituted", it cannot be by chance that Ananova ends at the edge of her neckline. In the case of Hera Qraft, however, the issue of similarities or the lack thereof was more complex. Let us therefore summarize the traits of the two virtual heroines as we see them.

> Lara Croft, so far: a sexy, good-looking, female treasure hunter who is devoted to her hobby. As an archeologist, she is constantly seeking new adventures to satisfy the needs of her clients – the players. Lara never hesitates to take on even the most dangerous assignment. She is extremely good at calculating risks, but her clients' successes are dependent on their ability to make use of her skills. Lara works alone — she trusts no one and represents only herself.

Hera Qraft as she was: a conventionally good-looking female financial adviser who was devoted to her work. A real-time analyst, she was constantly seeking new opportunities to satisfy her clients' needs. Hera never hesitated to analyze even the most hazardous business project. She was extremely good at calculating risks, but her clients' success was dependent on their ability to make use of her advice. Hera worked in a team — she trusted her team and she represented them, not herself.

Here is another picture of Hera posed, like Lara, against the mountainous curves – although these are the highs and lows of the market. Put this way, the resemblance between the two is more striking, and their professional identities seem to be much alike, but there are also crucial differences – a case of alter ego rather than of identity. These differences, we claim, reflect the differences between the networks that produce the respective images. In this sense, their images hint at the images of the networks/organizations behind them.

Lara is an independent character, but her independence is the result of previous actions of game developers, designers, software (Eidos interactive™), musicians, animators, programmers, computers, marketing people, and distributors. Her image projects certain basic skills and features that are both confirmed and co-produced by the players through advanced computerized interactivity. Even if the present Lara Croft has a strong image that is carefully monitored and protected in contracts and franchising, it must still be continuously reconstructed in the interaction between her and the players.

Hera Qraft, on the other hand, was a team worker, and she played the role of a figurehead while the rest of her team did the work. Her clients knew that they did not interact with her but with her network of programmers, analysts, brokers, computers, and software. Therefore there were no ways of challenging Hera's image of a hard-working woman devoted to financial issues. There could be no doubt about her virtue, as her demure outfit firmly confirmed, although the titillating connection between Lara and Hera has been pointed out by a journalist who might have intended to be critical, but undoubtedly created the link for those who had not seen it before (*Dagens Nyheter*, March 12, 2000:B3). All this seemed to be well understood by her employers, who claimed to have no interest in creating a Hera myth but were pleased with the situation, while denying any intentional link between the two Web Women[6].

Hera had no identity of her own, yet her presence on the site fulfilled an important function. She impersonated her team members, and by not having an identity of her own she provided an image for the organization that sponsored her. The real people who worked at the HQ.SE acquired a representation that had nothing to do with their own identities. As it happens, most of the people who work in companies like HQ.SE are men. The annual report for 1999 contained photographs of eleven men, one woman, and Hera. In the report for 2000, there were pictures of ten men and seven women, but six of the women worked in administration.

---

[6] In an "interview" with Hera Qraft (www.hq.se, February 8, 2000), she announced the results of a competition for suggested improvements of the HQ.SE web page. "We have received more than 1000 suggestions – almost all of them thoughtful and constructive. The only ones that we rejected directly were those concerning my clothing and hair style" – as too frivolous, we assume.

As a woman, Hera was obviously not a good representative of the team. She could, in fact, be labeled a "token woman" (Kanter, 1977), an image to suggest that the HQ.SE differed from the industry standard by promoting women. An additional explanation of HQ.SE's choice of a female image for its figurehead was given by Hera's employer, who claimed that "women simply are better analysts than men because they mix insecure investments with secure ones" (*Dagens Nyheter*, March 12, 2000:B3).[7] Thus the purpose of Hera's existence could have been to evoke this association among the clients, so that they could add this "female" characteristic that was missing in the group that Hera represented. What is more, finance is not the only sector dominated by men. The IT sector has the same characteristic, and interest in technical progress is typically presented in the Swedish media as a male feature, albeit followed by the appropriate regrets. Hera's appearance on the site thus enhanced the equality image of HQ.SE: she added feminine features, whatever they might be, to the financial and the technical part of HQ.SE organization.

Hera Qraft was, therefore, an important addition to the image of an organization known as HQ.SE. One token woman in management could hardly have created the same impact, especially the subtle double duty of evoking Lara Croft as a sex symbol, then denying her through the firm's representation of her as a prudish, hard-working woman buttoned up to her chin. Although women are known for their talents at double employment (Hochschild, 1989), Web Women seem to push these talents beyond all previous limits.

Machine dreams

Hera Qraft was the token woman in HQ.SE. It is a new kind of tokenism, however, because it extends beyond Rosabeth Moss Kanter's description in her famous 1977 study of one woman representing womankind. Hera Qraft was also a token woman in another sense of the term, and she shared this tokenism with Olga and Ananova.

---

[7] One wonders about the source of his information, as a recent study of analysts in Sweden (Hägglund, 2001) shows that the vast majority of analysts are men.

To explain the other notion of tokenism, we need to tie it to our interest in new kinds of services, especially those connected to finance or mediated by information technology. We expected the three women to perform services on the Web, but they do nothing of the kind. Olga is in an experimental stage, but it is unlikely that anybody will ever buy anything from a monster such as she has become at the insistence of the linguists. After the hype of introduction and a series of flashy pictures, Ananova has been reduced to a thumb-size picture whose lip movements are awkward and poorly synchronized with her mechanical voice. Only the most devoted fan would listen to her rather than read the news. The immobile picture of Hera Q hung on the pages, and the only possible function we could imagine for it, apart from signaling the company's equality intentions and the subliminal message of sexuality, was to conform to the general belief that services must be personalized. In other words, all three women have only ornamental functions in services.

The web women may not perform services in the sense suggested at the beginning of our article, but it has become clear to us that they also serve. In Donna Haraway's terms (1991), they serve to hamper the possible cyborgization of society, reconstructing the goddess image of women that some feminists tried to destroy. They help to recreate the stereotypical image of femininity that many women have tried to abolish. They put the new technology in the service of the old dreams. Machine Dreams, the title of this section, is also the title of a film by the German director Peter Krieg.[8] This film, which resembles a scholarly dissertation, is based on the premise that the major drive behind technological development is the male wish for a life without women, who can always be replaced by machines. Building machines that resemble women has not been successful to date; hence virtual women open many interesting possibilities. In this context, Sadie Plant quotes *L'eve future*, Adam Villiers de l'Isle's classic from 1884: "(…) and what is more, the reproduction will be more identical than the woman herself" (Plant, 1997:87).

But were the creators of web women aware of the type of readings they evoke? We have no reason to disbelieve their denials, but we must remind them of the observation so well formulated formulated by Elaine Scarry: reciprocation (the use of an artefact) always exceeds projection (as expressed in the design) (1985:308). Hagström, the photography

---

[8] See http://www.buyindies.com/listings/9/0/FRST-907729V.html.

student, wondered: "Why did HQ choose Lara Croft as a model for its virtual avatar, Lara, who is so obviously a sex symbol"? (Hagström, 2001). And after his hypothesis about the connection between Lara and Hera had been refuted by the HQ.SE manager, *DN* journalist Nicholas Wennö offered his own suggestion for improvement: "Perhaps one should think again about her name. Hera is the goddess of marriage and represents the woman whose only wish is to marry. Once she achieves that, she cares less about studies, a profession or even children" (*Dagens Nyheter*, March 12, 2000: B3). Wennö's reading may be idiosyncratic, but it may fulfill the useful function of reminding the managers that playing with signifiers is not easy, and usually ends far beyond the projection of the original player.

All in all, the efforts of companies at creating token webwomen reminded us of the phenomenon so well described by Ulla Eriksson-Zetterquist (2002) in her study of the training program at an international company. Animated by an earnest intention of promoting equality and introducing women into the management team, members of the management group unwittingly reproduced stereotypical expectations of the roles of men (not too manly) and women (traditionally feminine) in the company – and in society.

We cannot help but agree with Hagström's conclusion concerning Hera Qraft, which can be extended to Olga and Ananova: instead of paving the way for equality, these Web Women seem to be yet another means of perpetuating discrimination. Virtual women, much more than living models and machines, can be created according to their designers' wishes. And even if designers are not always men, they tend to re-create the male dream of a woman. "[W]hen a given artifact is undergoing successive revisions, it may be something about the nature of projection that is being revised or instead something about reciprocation", continues Elaine Scarry (1985:307). In our case, a self-replicating circle seems to be in place: subsequent versions of Web Women perpetuate the same projection, and we perpetuate the same reciprocation, perceiving the companies that produce them as being insensitive and chauvinistic.

It need not remain so, however. One conclusion is obvious: websites have become sites of politics and controversy, to which researchers should attend. Otherwise, they may

become Trojan horses (also a machine) introducing new methods of discrimination and perpetuating stereotypes in the name of novelty.

References

Acker, Joan (1992). "Gendering organizational theory." In Albert J. Mills and Petra Tancred (eds.). *Gendering Organizational Analysis*. London: Sage, 248-260.

André, Elisabeth (eds). (1999). "Special Issue: Animated Interface Agents: Making Them Intelligent." *Applied Artificial Intelligence, An International Journal* **13**(4-5): 341-565.

André, Elisabeth and Rist, Thomas (2001). "Controlling the Behavior of Animated Presentation Agents in the Interface – Scripting Versus Instructing". *AI Magazine*: 53-66.

André, Elisabeth and Rist, Thomas (2002). "From Adaptive Hypertext to Personalized Web Companions." *Communications of the ACM* **45**(5): 43-46.

Benschop, Yvonne and Doorewaard, Hans (1998). "Six of One and Half a Dozen of the Other: The Gender Subtext of Taylorism and Team-based Work." *Gender, Work & Organization* **5** (1): 5-18.

Bitner, Mary Jo, Brown, Stephen and Meuter, Matthew (2000). "Technology Infusion in Service Encounters." *Journal of the Academy of Marketing Science* 28(1): 138-149.

Bradley, Harriet (1989). Men's Work, Women's Work. A Sociological History of the Sexual Division of Labour in Employment. Oxford, UK: Polity Press.

Brunsson, Nils and Sahlin-Andersson, Kerstin (2000). "Constructing Organizations: The Example of Public Sector Reform." *Organization Studies* **21**(4): 721-746.

Czepiel, John. A., Solomon, Michael, and Surprenant, Carol, (Eds). (1985). *The Service Encounter, Managing Employee/Customer Interaction in Service Businesses.* Advances in Retailing Series. Lexington, Mass, Lexington Books.

Dehn, Doris. M. and van Mulken, Susanne (2000). "The impact of Animated Interface Agents: a Review of Empirical Research." *International Journal of Human-Computer Studies*, 51, 1-22.

Du Gay, Paul (2000). "Markets and Meanings: Re-Imagining Organization Life". In Majken Schultz, Mary Jo Hatch and Mogens Holten Larsen: *The Expressive Organization - Linking Identity, Reputation, and the corporate Brand.* Oxford: Oxford University Press: 66-74.

Eriksson-Zetterquist, Ulla (2002). "Construction of Gender in Corporations." In Barbara Czarniawska and Heather Höpfl (eds): *Casting the Other: The production and Maintenance of Inequalities in Work Organizations.* London: Routledge: 89-103.

Gagne, Cole (2001). "Animated Films." <http://allmovie.com>, 010616.

Grint, Keith and Woolgar, Steve (1997). *The Machine at Work: Technology, Work, and Organization.* Oxford: Polity Press.

Gustavsson, Eva (2000). Organisering av tjänster – Från den symmetriska interaktionen till införandet av standarder? Göteborg:BAS.

Hagström, Andréas Olof (2001). "Bildanalys: Reklam för HQ.SE." <www.hff.gu.se/student/andreas_h/texter/bildanalysmapp/hqmapp/hq.html>, 01-03-22.

Haraway, Donna (1991). "The Ironic Dream of a Common Language for Women in the Integrated Circuit: Science, Technology, and Socialist Feminism in the 1980s or A Socialist Manifesto for Cyborgs." In Donna Haraway: *Simians, Cyborgs and Women: The Reinvention of Nature.* New York: Routledge: 149-181.

Hine, Christine. (2000). *Virtual Ethnography*. London: Sage.

Hochschild, Arile Russell (1983) *The Managed Heart. Commercialization of Human Feeling*. Berkley and Los Angeles, Ca: University of California Press.

Hochschild, Arlie Russell (1989) *The Second Shift*. New York: Avon Books.

Hägglund, Peter (2001). Företag som investeringsobjekt. En studie av placerares och aktieanalytikers arbete. Stockholm: HHS.

Jacques, Roy (1996). Manufacturing the Employee: Management Knowledge from the 19th to 21st Centuries. London: Sage.

Jones, Steven G. (1997). "The Internet and its Social Landscape". In Steven G Jones (eds): *Virtual Culture - Identity and Communication in Cyberspace*. London: Sage: 7-35.

Kanter, Rosabeth Moss (1977). *Men and Women of the Corporation*. New York: Basic Books.

Katz, Ephraim (1993). "Animation." *The Film Encyclopedia*. New York: HarperPerennial.

Leidner, Robin (1993). *Fast Food, Fast Talk. Service work and the routinization of everyday life*. Berkley and Los Angeles, Ca: University of California Press.

Levitt, Theodore (1972). "Production-line Approach to Service." *Harvard Business Review* (September-October): 41-52.

Mitchell, W.J. Thomas (1986). *Iconology: Image, Text, Ideology*. Chicago: University of Chicago Press.

Mitchell, W.J. Thomas (1994). *Picture Theory*. Chicago: University of Chicago Press.

Nordin, Peter (forthcoming) *Artificiell intelligens och intelligenta robotar*. Gothenburg: Spincard.

Plant, Sadie. (1997). Zeros + Ones: Digital Women + the New Technoculture. London: Fourth Estate.

Rasmussen, Bente (2001). "Corporate Strategy and Gendered Professional Identities: Reorganization and the Struggle for Recognition and Positions." *Gender, Work & Organization* **8** (3): 291-310.

Ritzer, George and Stillman, Todd (2001). "From Person- To System-Oriented Service." In Andrew Sturdy, Irena Grugulis and Hugh Willmott (eds): *Customer Service, Empowerment and Entrapment*. London: Palgrave:102-116

Scarry, Elaine (1985) *The Body in Pain. The Making and Unmaking of the World*. New York: Oxford University Press.

Schultz, Majken, Hatch, Mary Jo and Holten Larsen, Mogens (2000). "Introduction: Why the Expressive Organization". In Majken Schultz, Mary Jo Hatch and Mogens Holten Larsen (eds): *The Expressive Organization - Linking Identity, Reputation, and the corporate Brand*. Oxford: Oxford University Press: 1-7.

Shenhav, Yehouda (1999). Manufacturing Rationality: the Engineering Foundations of the Managerial Revolution. Oxford: Oxford University Press.

Smith, Warren (1998). "Computers and Representation: Organization in the Virtual World." In John Hassard and Ruth Holliday (eds): *Organization Representation – Work and Organizations in Popular Culture*. London: Sage: 229-245.

Turkle, Sherry (1995). Life on the Screen: Identity in the Age of the Internet. New York: Simon & Schuster.

Tyler, Melissa and Taylor, Steve (2001). "Juggling Justice and Care: Gendered Customer Service in the Contemporary Airline Industry." In Andrew Sturdy, Irena Grugulis and Hugh Willmott (eds): *Customer Service, Empowerment and Entrapment.* London: Palgrave: 60-78.

Wennö, Nicholas (2000) Virtuell tv-stjärna tar över. *Dagens Nyheter*, March 17, B3.