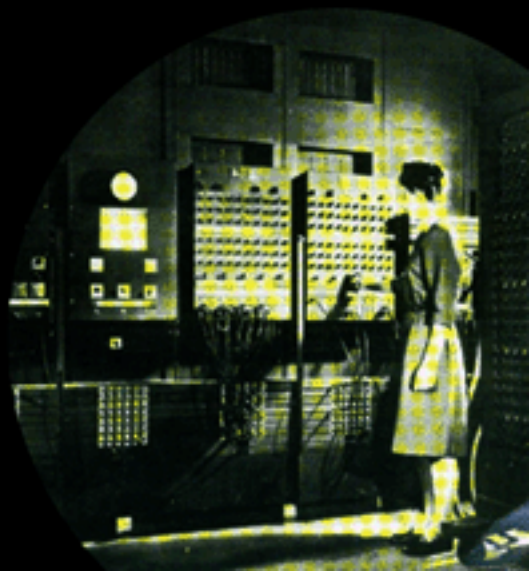
intelligent agent

interactive media in arts and education



fall 1997

US $5 Canada $6

Avatars on the World Wide Web: Marketing the "Descent"

Victoria Vesna

1995 was the year the Internet was opened to commercial use. After a reorganizationof funding, the **National Science Foundation (NSF)** officially began planning **Internet2** - a collaborative efoort joining over 100 U.S. universities - aimed at creating a network whose primary goal would be to facilitate research and education missions of universities in the US. It is envisioned that this network will be 100 to 1,000 times faster than the existing Internet. Applications like tele-immersion and digital libraries will change the way people use computers to learn, communicate and collaborate.[1] Although the universities are taking lead in the initial development and research of this network, this is a collaborative effort between federal government agencies, private corporations and non-profit organizations. This means that it will probably tae original Internet--first accessible and tested in research institutions, then made publically available. Corporations such as **IBM** that have already invested in this venture are most probably having long term plans for the commercial potential of such a super fast network.

Opening the Internet to the public had meant opening Pandora's box, and there was no way anyone could even attempt to put a lid on the activities that were increasingly taking place. Conceptualized as having only machines "talking" to each other, its developers would have never guessed that this network of machines would transform itself into a network of humans using the machines. Exponential growth in the number of Internet users, the number of hosts connected to the World Wide Web, and the number of companies establishing a Web presence has created a gold rush mentality among firms and investors. This euphoria is largely fueled by electronic commerce, and many companies are putting significant resources towards figuring out the most effective ways of buying and selling everything from groceries to clothing to movies over the Internet.

What is particularly interesting about the commercialization of the net, however, is that it is largely being driven by yesterday's anti-establishment hippies and nerds, who have become overnight millionaires in the software industry. Many of these new powerful personalities (with the exception of the most powerful one) are bringing value systems influenced by eastern philosophies into the market while collaborating with established corporate structures. Perhaps caught between a dream and the mass market, it is interesting to look at how these seemingly opposite worlds are taking form. This strange interplay, perhaps contradiction, is best analyzed through our online selves in multi-user environments, also known as "avatars"; a word that has now assumed a much narrower meaning than its original theological source.

Defining the "Avatar"

Before delving into analyses of how projecmanifest on the Internet and what kind of implications they may have on the future on our perception of the marketplace, it may be useful to give an overview of the myriad definitions of the "avatar".

According to the **Dictionary of Hinduism (1977)**, "Avatara" means"descent", especially of a god from heaven to earth. In the **Puranas**, an avatara is an incarnation, and is distinguished from a divine emanation (vyuha), both of which are associated with Visnu and Siva, but particularly the former. The avatara concept is probably a development of the ancient myth that, by the creative power of his Maya, a god can assume any format will, as did Indra. The avatara concept in Hinduism is a very complex hierarchical system with many different forms taking place.

Longman's Dictionary (1985) also defines avatar as the incarnation of Vishnu, a Hindu deity, and an embodiment of a concept or philosophy. The **Oxford Dictionary**, on the other hand, tells us that avatar can mean descent of a deity to earth in an incarnate form (i.e., as in "the fifth avatar appeared as a dwarf"); a manifestation or presentation to the world (i.e., the

avatar of mathematics); a display, a phase (1990). If you refer to the **Webster's Dictionary**, it says that an avatar is a manifestation or embodiment of a person, concept or philosophy; a variant phase or version of a continuing basic entity (1989). And finally, the **Random House Dictionary** describes an avatar as: "An embodiment or concrete manifestation as of a principle attitude, way of life, or the like" (1995).

In contemporary India, distinguished personalities may be called avatars, which is a sign that even at the source, the original theological meaning has shifted in popular culture. For instance, on the Web page of India Group, Partner **Anil Srivastava** refers to himself as "Anil Srivastava, avatar of global markets and emerging technologies, contemplates interactive media, networking, and online services from the omphalos of the Silicon Valley.[2]

If you ask anyone familiar with multi-user environments, the word simply means an assumed identity in cyberspace. But, the source of the use of the word in industry is a bit more difficult to identify. According to **Peter Rothman**, founder of **Avatar Software** and **Avatar Partners** (and later **DIVE** labs), "anyone claiming to know who used the word first, would be inventing the facts."[3] Rothman and his partner found the word in the dictionary in 1982, simply liking Webster's definition: embodiment of a concept or a philosophy in a person. Appropriately, the debate about this came up on the **WELL** discussion forum about the origin of the word, in which **Neal Stephenson** claimed that he was first to use the term in **Snow Crash**, but since the novel was not published until 1992, this was not acknowledged. Generally, it is conceded that **Randy Farmer** and **Chip Morningstar's "Habitat"** was the first to use this term. They were inspired by the Hindu root of the word (Randall, 1995).

The avatar name is apparently very popular these days. Numerous companies have registered various versions of the name, usually by adding a word next to it. Some recent examples are: **Avatar Partners** -- developing software for trading on the net; **Avatar Holdings** -- a real estate developer of major resort, residential and recreational communities; and **Avatar Systems** -- a moving company specializing in corporate relocations, just to name a few. The commercial world apparently has proprietary feelings towards the term. For example, at one point Avatar Partners were being threatened with a lawsuit by the **Avatar Financial Associates** who claimed to have been the first to have the name registered and trademarked. And then there is the Avatar nine-day course on "contributing to the creation of an enlightened planetary civilization." An enthusiastic testimonial on the net by a devotee claims: "I enrolled in the Avatar course in an attempt to alter behavior patterns that were interfering with the proper conduct of my business. Avatar taught me how to easily ith the beliefs that were causing my problems. . . . In addition, I found the Avatar experience to be delightful and amazing. My life is fuller, more meaningful and pleasant since I became an Avatar."[4]

Descent of the Avatar

The idea of the avatar "coming down" from an unspecified source in one of many possible manifestations connects well to the reverse hierarchy established originally by the scientific community at the inception of what would become the Internet: the client "uploads" to, and "downloads" from, the server that resides above.

The software industry's debate on avatars is really about object interactions passing between a variety of servers in real-time. Talking about avatars personalizes the discussion and brings up issues having to do with the nature of identity, security, interpersonal relations, and societies of the Internet.

The concept of an avatar can also be easily transferred to the many variants of computer messages and presentations being transferred from the Web to "client" computer screens. And, finally, all these concepts and hierarchies fit perfectly with financial markets used to trading numbers. The idea of products or services constructing themselves on a computer screen as a result of information "coming down" from the Internet and the World Wide Web is a very attractive prospect for entrepreneurs. There is a sense of power and control the owner of a server has, once removed from the flesh market.

What is particularly fascinating is how many are reading the mystical concepts of the word avatar into various software applications. For instance, **Peter Small** writes in the introduction of his online version of a book entitled **Magical Web Avatars**:

> The mystical aspect implies that the deity "Vishnu" has no specific form or shape before manifesting as an avatar on earth. It is implicit that any physical appearance of an avatar is merely a temporary form or phase from an infinite variety of possibilities--a transient form from an indefinite, indefinable number of sources. It is the capturing of this concept, which makes the word avatar ideal for the purpose of describing the Web communication products which will be described in this book" (Small, 1997).

Thus product promotion is inextricably linked to mysticism and New Age values. This is true for many softwares with mystically encoded connotations, and for the marketing "gurus."

New Ageism typically encompasses an eclectic mix of different religious elements, claiming no allegiance to nationality or even specific Gods. Still, the strong ideological character remains, linked very much to cultural processes and marketing of products and ideas, and seems to be pervasive in the structuring of a significant number of new high tech corporations. Certainly, the very choice of naming an identity in networked spaces an"avatar" indicates this trend. The avatar in cyberspace represents a strange interplay of left-wing utopianism with right wing entrepreneurism, mixed up with esoteric spiritualism. New Age religion operates in tandem with networking technologies and "organic" corporate structures--the new "cool" companies that are emerging all over the high tech industry map.

James Hillman, a psychologist widely read by the corporate sector's elite, writes in his influential best-seller, **Kinds of Power**: "Economics is the only effective syncretistic cult remaining in the world today, our world's only ecumenical faith. It provides the daily ritual, uniting Christian, Hindu, Mormon, atheist, Buddhist, Sikh, Adventist, animist, evangelist, Muslim, Jew, fundamentalist and New Ager in one common temple, admitting all alike . . ." (1995).

How perfectthe Internet, then, to unite the multi-national corporations with their customers regardless of nation, race or creed. The multi-user environment with its dynamic design for instant communication and relations is the ideal space for the creation of communities with their various interests and markets, commercial or otherwise. Hence the World Wide Web, with its friendly graphical user interface--not like its predecessors, the text-based virtual realities, only accessible by the unix literati.

To date, text based environments are still active with hundreds of thousands of users, and provide useful research data for those planning commercial ventures with graphical multi-user communities on the Web. Naturally, the graphical offspring promise numbers projected into the hundreds of millions (Advertising Age, 1996). There are over 500 MOOs (Turkle, 1995) in existence, with hundreds of thousands of users who might easily make a transition from the text based environments to more graphically designed spaces.

Hierarchies of Multi-user Environments

Examining the hierarchy of MUDs and MOOs is helpful if we are to begin understanding the evolving social structure of avatars in cyberspace.[5] It is generally acknowledged that the Arch-Wizards are those who "own" the MOO, and that those new to the environment are usually guests who progress in their status as they become more active and experienced.

Most MUDs and MOOs prefer to allow users to retain anonymity so as not to destroy the online atmosphere by introduction of offline life. An exception to this would be **MIT**'s **MediaMOO**, where each character has a "character name" and a "real_name." [6] Real names don't normally appear, but can be seen with the @whois command. Only janitors (administrators of the MOO) can set or change real names. Because the goal is to enhance community amongst media researchers, you must provide a statement of your research interests in order to be granted a character. Regardless of the specialized purpose of the MOO, whether it is the most down-and-dirty fantasy dungeon and dragon MOO or a MOO steeped in theory, people in charge of the code reside at the "top."

For instance, **Avatar III - The Crypt**, is owned and run by a company in the UK that specializes in games.[7] The Crypt is a beta site that presumably will become commercial as soon as enough players visit it regularly. When you first enter the site, you will get promotional materials--not at all enshrouded in fantasy--about the company that produces the MOO. The avatar inhabitants are--Shopkeepers, Moneychangers, Pawnbrokers, Pedlars, Town Guardsmen, Market Traders and Citadel

Traders. The Avatar classes are very different, and quests are allocated to suit the skills of the different classes. The site's narrative and hierarchy uncannily resembles the class system England is so familiar with.

Rose, a user of the five year old MOO since day one, has gained the status of a god. She logs on daily to help newbies, and in this way gains points. One needs 1,000 experience points to move to the second level, and 1,024,000 to get to the twelfth and highest level. Gods have the power to move uplevels to ensure that the lower level gods can't force higher level gods to do things.[8]

Users are encouraged to help those on lower levels, which not only teaches human relations, but ensures a growing community. Thus the ones at the "top" assume a role similar to those held be religious figures of the past. By providing incentives they function as primary agents of socialization, and become more powerful in the process.[9]

Particularly interesting about Avatar III is that the role playing game is housed in a commercial shopping site--Silicon Village. Thus, an entire community is formed around the shopping site where users have the illusion of anonymity. The Arch-Avatars (owners), on the other hand, can easily track all the personal information they may need on users' likes and dislikes, newsgroup postings, favorite web sites, and navigational habits. As soon as users enter a site, it bto learn where they go, what they click on, their domain name, computer type, and general location. Personal information is fast becoming a most precious commodity, and those who are positioned as packagers and resellers of it will profit the most in the Information Age.

Descent of the Graphical Avatar

In is truly awe-inspiring to survey how much progress industry has made in figuring out ways to cash in on the potential markets of the World Wide Web. Star-featured chat rooms sponsored by large companies, soap operas, online trading, and role playing games seem to be the places where most success is promised. In other words, any space that could potentially form large communities that will regularly log on to communicate, exchange ideas and spend cybercash.

Avatar-filled chat rooms seem to be where most entrepreneurs are placing their bets. By the year 2000, chats are expected to generate 7.9 billion hours of online use, with a resulting $1 billion in advertising revenue (*New York Times*, 1996). But makers of virtual environments predict that scrolling text for chat rooms will soon be replaced with 2-D and 3-D graphical environments, while marketers are busily exploring ways to exploit new technology for advertising.

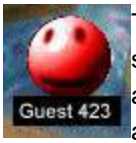
For example, soap operas on the World Wide Web are seen as ideal environments for marketing strategies involving advertisements built into the narratives.[10] Moreover, in contrast with television, there are virtually no standards regulating web-based advertising. Currently several cybersoaps allow advertisers the chance to have their products integrated into the story line (*Advertising Age*, 1996).

Meanwhile, **Rocket Science Games**, a maker of interactive entertainment software, and **CyberCash**, a company that handles payment transactions on the Internet, are forming a partnership to develop a virtual video game arcade on the World Wide Web. Scheduled for rollout later this year, **Virtual Arcade** will feature interactive versions of classic video games. Users will reportedly be able to modify the environments of the games, and they will pay as little as 25 cents to play each game. Payments will come out of an "electronic wallet" that users could replenish by transferring money from their bank accounts (*San Francisco Chronicle*, 1996).

Of course none of these developments would be taking place with this kind of speed if the WWW was a text-only environment. Although text-based MOOs and MUDs are still very active communities, and there will probably always be a place for them, the real gold-rush has started with the introduction of graphical user interfaces. Graphical Multi-User Konversations ("GMUKs") are something of a cross between a MOO and a chat room or channel. Rather than limiting users to text-only

communications, as in most virtual chat environments, GMUKs add an audio-visual dimension that creates the illusion of movement and space.

The most popular GMUK, to date, is **Time-Warner**'s **The Palace**, a client/server program that creates a visual and spatial chat environment.[11] Currently, there are many Palace sites located across the Internet, varying widely in technical and artistic sophistication, as well as graphical themes. **Jim Bumgardner** and **Mark Jeffrey** created and designed The Palace at Time Warner's Palace Group. The software driving the environment was released in November 1995. More than 300,000 client versions have been downloaded since then, and over 1,000 commercial and private-hosted Palace communities have been established. Major investors include **Intel, Time Warner, Inc.**, and **Softbank**. Companies like **Capitol Records, Twentieth Century Fox, Fox Television, Sony Pictures, MTV** (Suller).

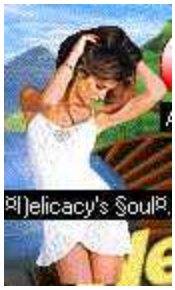


Time/Warner's "avs," as Palace members affectionately call them, fall into two overall categories. The first are the standard set of "smileys" that come with the Palace program. These faces are available to all users, including unregistered "guests." The standard avs are associated with newbies, the unregistered guests who are considered a lower class of the Palace population. They have not paid the registration fee, they do not belong to the Palace culture, and are limited to wearing only the standard avs and props. They cannot create their own avatars, and are reduced to wearing a smiley which identifies them as a newbie. Only after paying the registration fee can the user unlock the prop-creating/editing feature of the Palace software. At that point they are able to choose from Animal, Cartoon, Celebrity, Evil, Real, Idiosyncratic, Positional, Power, Seductive or "Other" avatars. The Palace is an excellent example of an environment in cyberspace that is a combination of an established entertainment industry's approach to pre-packaged programming for the public, reminiscent of developments such as Disneyland or any planned community.

Earth to Avatar

The biggest problem faced by industry in developing multi-user environments for avatars is the fact that people can assume many identities and are still quite difficult to track down. This is largely due to the lack of a universal standard allowing the avatars to move from one virtual world to another. There are a number of avatars currently on the Web--VRML, 2D, text, Voxel-drawn ones, and Virtual Humans (which refers to the group set up by **VR News** to exchange information about the development of autonomous agents that look like human beings).

Buying patterns, monetary exchange, security, and authentication must be maintained in the avatar in order for a market to be fully developed. Using standardized avatars can help in using Internet search engines for avatars and avatar properties. Finally, avatar companies have become common--they can price their avatars at a lower cost, make them available to more people and guarantee broader applicability.



In October '96, at the **Earth to Avatar Conference** in San Francisco, architects of 3D graphical interfaces on the web met to discuss the lack of avatar standards. When former **Apple** Computer Chairman **John Sculley** gave his analysis of the future of cyberspace at the conference, he said that once the technology is shown to work and standards are agreed, the big league players will move into cyberspace. As avatars become members of self-organizing groups, Sculley sees them as "a driving force shaping the economics of this industry" (Wilcox).

Universal Avatar Standards group stated that their core aim is to focus on the nature of avatars with regard to such issues as gender representation, ID authentication, personal expression versus social constraints, avatar versus world scale, and the communication of emotion. **Maclen Marvit**, teleologist of **Worlds** in San Francisco, provides this overview of **UA**'s approach:

> We are at a point in our industry where lots of companies are doing innovative things, both technically and artistically. The goal of UA is to allow users to move as freely as possible between the technologies and find the best experiences in each, while maintaining a consistent identity. So if Bernie moves from one "world" [developed using] one technology to another "world" in another technology, he can maintain his avatar's representation, his Internet phone number and his proof of identity" (Wilcox).

The proposal provides an architecture for managing thousands of geographically distant users simultaneously, with interactive behaviors, voice, 3-D graphics and localized audio. It uses a powerful concept known as "regions," which allows for multiple contiguous worlds, accelerated 3-D graphics, and efficient server/client communications. The avatar standards issue is crucial to the success of VRML as a commercially viable language. Until there is some common definition of an avatar, and universality of movement between spaces on the Internet, it seems unlikely that any VRML company can hope to make serious money.

The proposal discusses creation of a link to a user profile, coded in HTML and containing data the user wishes to be known either about his fantasy identity or a true one. Proofs of identity Vendor-specific extensions and user's history. A history could be with reference to games, for example, wizard status in a Role Playing Game (RPG), or it could hold marketing information about purchases made by credit card.

Conclusion

The Internet as it exists today is one large market testing ground--a living laboratory of sorts. It is clear that most companies are moving in the direction of developing multi-user communities with standardized avatars. Because standardization renders identity in fixed and accountable form, the connection between the users' physical self and bank accounts will not be confused. What will be confused by design, however, is the power status of the avatar--i.e., who is really the "user" and who the "used." In a paradox of power relations, the corporations practice their accustomed method of top-down hierarchy to lift lowly users into the avatar's "god sphere." Be as gods, the hidden god thus decrees; and it is technology and its invisible priests (those who control the servers) who are the real avatar of the god sphere. When the Internet2 "descends," and when avatars are standardized and cybercash perfected, we will be looking out upon a world that we can't even imagine, because it has been imagined for us.

NOTES

Special thanks to Alan Liu and Robert Nideffer for their suggestions during the revision of this essay.

1. Internet2--also known as I2--is a collaborative effort joining over 100 U.S. universities. See http://www.internet2.edu *(Back)*

2. Anil Srivastava - - http://www.indonet.com/AnilSrivastava.html *(Back)*

3. I interviewed Peter Rothman on December 31, 1996, at MetaTools INC. in Carpinteria. His company, DIVE, was acquired by MetaTools, and he is currently the director of Research & Development. *(Back)*

4. William L. Owens, Wisconsin, USA http://www.epcnet.com/avatar/index.html *(Back)*

5. MOO, technically, means MUD-Object Oriented. And MUD is a Multiple-User Dungeon (or Dimension. MUDs started as interactive adventure games similar to Dungeons and Dragons for the computer--but a version that participants could play over the Internet. Since those days, the use of MUDs have expanded to other sorts of games and to more social uses. The object-orientation of MOOs puts more of the programming focus on the "objects" that are in the MOO. Some of the most significant research done to date on MUDs and MOOs has taken place at Xerox Parc, University of Virginia and the MIT media lab. At Xerox Parc, Curtis Pavel established LambdaMOO and wrote on the social phenomena of Text-Based virtual realities (1992). *(Back)*

6. MediaMOO, http://www.cc.gatech.edu/fac/Amy.Bruckman/MediaMOO/ To connect to MediaMOO from a UNIX host telenet: mediamoo.cc.gatech.edu 8888 - From a VMS host, type: telnet mediamoo.cc.gatech.edu /port=8888 *(Back)*

7. Avatar III - the Crypt - http://www.avatar.co.uk/ *(Back)*

8. I interviewed Rose on May 29, 1997. In RL (real life), she works in a social security office. *(Back)*

9. An example of a code of conduct in a online game, original from: http://games.world.co.uk/code_of_conduct.html *(Back)*

10. Online soaps include:

- The Spot: (full site at http://www.thespot.com)
- Ferndale - No longer in existence
- Techno 3 - No longer in existence
- The East Village - No longer in existence

(Back)

11. The Palace Home Page -- http://www.thepalace.com *(Back)*

REFERENCES

Dunn, A., "Think of Your Soul as a Market Niche," *New York Times Cybertimes* September 11, 1996.

Cleland, K., "Chat Gives Marketers Something to Talk About," *Advertising Age* August 5, 1996.

Curtis, P. (1992), "Mudding: Social Phenomena in Text-based Virtual realities," unpublished, available via anonymous FTP: ftp://parcftp.xerox.com/pub/MOO/papers/DIAC92.txt

Dillstone, F.W., (1951) *The Structure of the Divine Society*, Lutterworth Press.

Donovan, L., "Secret Identities (Secure Electronic Signatures Would Aid Internet Commerce)," *Financial Times* 2/6/96.

Einstein, D., "Virtual Arcade Games Play the classics on the Internet," *San Francisco Chronicle* February 13, 1996 p. C3.

Hendrickson, R. (1987), *Encyclopedia of Word and Phrase Origins*, New York: Facts on File.

Levere, J., "Advertising: With Soap Operas on Web, What's Next?," *The New York Times* March 11, 1996.

Longman Dictionary, (1985) Harlow [Essex] : Longman.

Oxford Dictionary, (1990) New York : Oxford University Press.

Randall, F. et al. "From Habitat to Global Cyberspace," unpublished, available via the World Wide Web: http://www.communities.com/paper/hab2cybr.html

Random House Dictionary, (1994) New York: Random House.

Riedman, P., "Avatars Build Character on 3-D Chat Sites," *Advertising Age* September 1996.

Small, P., "Magical Web Avatars: The Sorcery of Biotelemorphic Cells" http://192.41.36.58/avatars/Index.htm

Stutley, M. (1977) *Dictionary of Hinduism*, London: Routledge & Kegan Paul.

Stephenson, N., (1992) *Snow Crash*, New York: Bantam Books.

Suler, J. (Nov. 1996). "The Psychology of Cyberspace." World Wide Web, http://www1.rider.edu/~suler/psycyber

Turkle, S, (1984) *The Second Self: Computers and the Human Spirit*, New York: Simon & Schuster.

Turkle, S, (1995), *Life on the Screen*, New York: Simon & Schuster.

Webster's New dictionary, (1991) Cleveland : Webster's New World.

Wilcox, S. (1996), "Bringing 'Behaviors' to VRML: Making Sense of the Avatar debate," *Netscape World*, January 1997 http://www.netscapeworld.com/netscapeworld/nw-01-1997/nw-01-avatar.html