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## A META-WEB SITE: THE METAPHYSICS OF VIRTUAL REALITY

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### INTRODUCTION

Aesthetic criticism of the Internet's World-Wide Web has just begun. Over the last year, the graphic interface of the World-Wide Web has boosted a still growing awareness of Internet computing. While the Internet itself goes back decades, the visual format of the World-Wide Web first appeared in 1993. The Web's phenomenal growth flows from the integration of audio-visual media with a relatively intuitive technology. However, the aesthetic evolution of the Internet is still premature and will have to tolerate many transformations and experiments. The Web site we are writing about, entitled "The Metaphysics of Virtual Reality" (<http://www.jovanet.com/~mheim>), began in late 1993, preceding the commercial boom and preserving some of the flavor characteristic of early Web sites:

- person-centered, not a company product
- non-linear, link-oriented
- a clearinghouse more than a place
- based more on text than on images

Like the Web itself, the MVR site evolved gradually over time and has gone through multiple revisions, yet it does not make use of the rich visuals and media applications of the current commercial phase of the Web. At the time of its first appearance, the site aimed to provide a "meta-node" for the Internet. That is, the site creates a computer reference or set of references to spur reflection on the nature of the Internet itself. In other words, the MVR site sought to philosophize about the

impact and meaning of the Internet and computer networks.

### A FIRST-GENERATION SITE

Early Web sites identified themselves primarily as parts of a network – links within a chain of other links – and only secondarily as an attempt to shape a distinctive place. Connectivity played a stronger role than unique visual identity. Hence, the dominant characteristic of the MVR site is to be a joint that connects various references on the Web. In this way, the MVR site serves as a transitional area: the site's purpose is to be passed through, to provide a jumpstation to other sites, a clearing house. Departure, not arrival, is the name of the game. The MVR site offers a minimal local face or place identity of its own. The site's space is defined by its reference to "external" sites. In other words, leaving the site constitutes its shape, its not being present as an insistent entity.

You can get an idea of what the viewer sees on first encountering the site from Figure 1. The image at the top of the screen – the jacket cover from the book "The Metaphysics of Virtual Reality" – captures attention at first glance with its glowing primary red, green, and blue. The image displays the digitally enhanced portrait of the author taken by the photo-journalist Catherine Leroy. The pattern-splashed face of the author contrasts with the green Nintendo Power Glove worn on the hand, and the face and hand combined suggest the site's theme: one philosopher's involvement in theorizing about Virtual Reality technology.

After the visual impact of the image, attention turns to the written words at the top of the screen. A greeting appears: "Welcome to the Metaphysics of Virtual Reality!" And the next line describes the project: "The Metaphysics of Virtual Reality is a philosophical endeavor initiated by Michael Heim." The author's name is a hypertext link to the scheduled lectures and travel appearances going back several years. The top of the schedule serves to locate the lecturer in place and time during coming weeks and months. The next line describes the site contents: "Seminars, lectures, books, and conferences reflect on Digital and Virtual Reality." That is, the MVR site contains cross-links to four principle types of content:

- book reviews
- articles and essays (both on-line or print-published versions)
- interviews
- seminars and lectures (offered either as a teacher at different institutions or as materials used by other teachers at other institutions).

Directly under the cover image begins a list of bullet points with separator rules between. The list is not organized alphabetically, and the sequence shifts frequently, sometimes weekly. Some sections of the list combines systematic with temporal order. The mixed order reflects the author's intuitive perception of the relative importance of the site's items. The potpourri composition communicates what the author feels at any particular editing moment, with the understanding that the reader will most likely choose to approach the content in an order different from the author's, according to the reader's current interests. This is hypertextual or "lite order."

The MVR meta-site does not follow the logic of any architectural structure, nor does it reveal exactly where its linked references

originate. Almost no visual clues are provided to mark where references might exist on external Web sites. Since the MVR site does not claim an own visual space, focus is placed on links and their interrelated contents. It is the variety of references and their subtle relevance that builds the distinct MVR domain.

The site builds on the content and shape of its linked resources, and so it depends very much on how these resources evolve over time. The site's face not only changes with the modifications of its links but even more with the modifications within the linked sites. Some of the referred sites contrast radically in structure and appearance with the MVR site. It is the recursive relationship between the meta-node, the links, and the referred sites that ultimately forms the "space" of the MVR territory. For example, the links to seminars arrive at sites that have been created by students who took the seminars. Since the seminar content dealt with electronic design, and since the graphic power of the Web grew by leaps and bounds with each semester, the student-shaped sites show an increasingly strong visual sense of place. When you click on a seminar link on the MVR site, you find yourself immediately in a more distinct, consciously shaped environment. The site of arrival strikes you with its strong identity as a distinctive visual presence.

Take a look at two seminars sites linked to the MVR main screen, Figures 2 and 3.

One link connects to the "Information Ecology" Graduate Seminar done in the Fall of 1995 at the Art Center College of Design. The other link goes to the "Metaphysics of VR" Graduate Seminar taught in Spring 1995 at the School of Cinema-Television at the University of Southern California. In both seminars, students were encouraged to create a Web identity for the seminar. During the semester, the amount of email

communication between students and professor increased each week as more and more students found their way online to begin building Web identities. In 1995, access to the Internet still presented problems. Acquiring hardware and finding a reliable connection were not easy. As the students got online, they were able to participate more fully in the class (which included working with "Mosaic," "Netscape," and other browsing and connecting software). As the students came online, the tempo of the live sessions changed. Because email messages went back and forth nearly every day, and because the class newsgroup provided a place to chat, the live sessions moved along more rapidly, backed by the many exchanges that took place online. As the axiom goes: A social group with stronger communication is a group that can act faster and accomplish more.

## TWO DIFFERENT PLACES ON THE WEB

As students gained skills in expressing themselves online, they sought to create a Web presence that relies on images and expressive visual composition. Keep in mind that both seminars took place at schools that emphasize the creation of visual identities. But in each case, the seminar approached visual identity from the school's unique perspective. One seminar approached the Web as graphic and media designers; the other seminar approached the Web as film students.

Art Center involves the students neither in exploring the Web for its own sake nor in learning to access information. Art Center subordinates information technology to the challenge of visualizing and communicating information. You would not expect a site built at Art Center to look like a site built at the Massachusetts Institute of Technology or at a school of electrical engineering. Likewise, the film students at the University of

Southern California express visual identities less in the contemplative graphics of designers than in the spontaneous, story-based gestures of film-makers. Each group sought to visually shape a place on the Web that manifests the distinctive identity of their group. Each Web site is a visual manifesto.

Take a close look at the Art Center "Information Ecology" front screen [Figure 2]. The Info-Eco site was conceived and designed as an expression of experiences accumulated over the course of a semester. The site is not a documentation of information, nor does it collect references to outside sites. The Info-Eco site expresses the media experience of the students who took the seminar. The real-world environment of the seminar room (a large auditorium equipped with presentation screen and Internet connection) affected the class sessions, including the interaction among the students and with the professor. As the students discovered, the real-world environment of the auditorium created a conflict between information and communication. The clash is similar to the clash designers experience with present-day information technologies. The auditorium was designed for a monologue / demonstration situation, and it could not satisfy the communication needs of a discussion group. The seating of an auditorium does not facilitate round-table seminar discussion. In a similar way, current information technologies satisfy only a narrow range of the fully interactive patterns of human-to-human communication.

The design of the Art Center seminar site expresses the conflict. The students juxtaposed visuals to show the collision of the centralized presentation screen with the multi-directional interaction among the seminar participants. In this way, the Art Center Info-Eco site integrates surface and space, presentation and interaction, information and communication. In a sense, the monologue

of presentation and the dialogue of discussion resolve in a “hyperlogue” of the Web site’s conceptual space.

The site suggests two of the more general conflicts discussed during the seminar explorations of the Web: the conflict between surface and space, and the conflict between text and image. Ultimately, the Info-Eco site unifies these formats in a counterpoint, not in a confrontation. The front page puts a snapshot of the auditorium’s presentation screen in dialogue with the computer screen from which the presentation was projected. Where the two surfaces meet, the abstract space of representation absorbs the “real” space of the physical environment. The interrelations of abstract space and physical space will likely play a key role in understanding the concepts of virtual environments. Art has a long history of visual representations expressed through surfaces – surfaces that collapse the material dimension and perception into a conceptual plane. In a broad sense, the collapse of physical space has always accompanied the abstract representational idea. Historically, the concepts of illusion and representation provided some solace to sustain the abstraction from reality. Form, content and experience took on a weight equivalent to that of physical perspective.

Challenged by digital technology, the understanding of reality shifts. The reality of virtual environments is defined by functional perception and experience and not by the physicality of matter and space. In virtual reality, the concept of environment replaces representations of physical things. While representations remain associated with their physical or abstract features, virtual environments establish the independent reality of virtual entities through pragmatic involvement in things. In strongly immersive environments, the new virtual realities will become as involving as the physical realities we experience today.

For the Info-Eco site, the shift in perceiving reality also appears in the roles assigned to text and image. Text is predominantly used for navigation and, as such, it constructs the architecture of the site. Text serves primarily as a set of building blocks to establish the abstract and experiential space of the site, not to convey content or information. Complementing the structural landscape of the Web site, full-size background images establish the visual environment.

USC’s “Metaphysics of Virtual Reality” Web site takes a very different approach [Figure 3]. While the students of Art Center’s Info-Eco seminar created a spatially based site, the students at the School of Cinema / Television at the University of Southern California began by creating characters. They display photos of themselves that capture their personal moment in time: one student uses a Xerox machine to capture his cowering, technology-shy face and hands; another shows herself as a heroine of silent films jumping onto the racing train of technology; another shows herself relaxed and on vacation as she thoroughly enjoys her work on the Web; another student puts up a baby picture of himself (with hat) to express the feelings of an innocent beginner on the Internet.

Dominating the front screen of the USC CN-TV Web site, its makers identify themselves as the actors of their own Web scenario. The actors’ personalities project their fundamental roles in a highly cinematic way. The film-oriented site establishes its place on the Web in the sense of a scenario rather than of a space. The site’s architecture follows the logic of non-linear story-telling, and the “highlights” or climax of the site’s contents are assembled on subsequent screens to build points of entry into the “story.” After the second level of the site’s structure, we discover that we have already moved onto the parallel line of compound stories; the main body of the site is non-linear but also non-

hierarchical – as film-makers are wont to do. Whereas the Info-Eco site has its visual environment for blending designers' imagery into an unified environment, the film students' MVR site treats images as discrete frames loosely held together by the overall theme of the site. Both sites establish places: Art Center's site as a place to shape a visual environment; the Film School's site as a place of narrative sensation.

Unlike those two different places on the Web, the front face of the MVR site remains itself rather a network than a locale. Merging flux and connectivity with the manifestation of a place, the MVR site roots in both the transitional links of early Web sites and the designed landmarks of the Web's second generation.

## THE NEXT GENERATION

The future of the MVR Web site is about as certain as the future of the Web. It is relatively uncertain. Software will remain soft, and hardware innovation continues to drive new software. At the end of the road lies a fully immersive virtual reality where we spend part of our daily lives working and playing in virtual environments. While the Internet is far from a fully immersive 3D environment, the vision that propels the evolution of hardware and software is virtual reality. The graphic interface that makes the Web possible once seemed a necessary evolutionary step from the bare bones of alphabetic command lines. So, too, we might speculate that current VRML (Virtual Reality Modeling Language) constitutes training wheels for a more fully immersive environment. The Web already hosts several sites that experiment with VRML, and high-speed graphics machines are already in production for the consumer market.

In the Fall of 1996, the graduate seminar in New Media at Art Center College of Design

explores the fate of text as it hits VRML. The seminar students will be invited to re-envision the MVR Web site as a fully immersive 3D environment. The students will speculate first on how the text-based tradition can be related to the fully virtual. They will use a medium of choice – from packaging techniques to architecture – to express personal visions of virtual culture. Then, for the final course projects, students will be invited to create VRML sites that to some extent embody the personal visions. These project sites will become new links on the current MVR home.

The possibility remains that MVR on the "old" Web will one day be swallowed by the richer, more powerful immersions on the new links. That day will be a welcome one, for no teacher can be more pleased than when the students surpass the teacher.