

# Glitch Control

A Master of Fine Art Thesis

In two parts

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2002

“We Begin with a digital dream. As computers, media and telecommunication continue to collect, manipulate, store, represent, and transmit an ever-increasing flux of data, they’re installing nothing less than a new dimension: the space of information. This proliferation multidimensional space is virtual, densely webbed, and infinitely complex, a vast and sublime realm accessed through the mediation of our imaginative and technical representations. How fully we both manipulate and inhabits these representations, these phantasms ghosting the interface.”

Eric Davis

*Techgnosis: Magic, Memory, and the Angels of Information*

Part one

In my lifetime, new technology has changed the way information is distributed. Today this impact can be seen in several areas. First, the Internet and its network of hypertext links has spread out information making it accessible to anyone connected to the web. I manipulate representations of this dimension of information with graphical icons on my desktop. I also exist in this space of information. In the data extracted from our world, I have noticed several aspects of technology and how they affects me. When new technology comes, old technology does not simply go away.

New technology builds on, and is in competition with the old. Is it possible for older technology to help shape contemporary ideas about how we

interact and navigate our new dimension of information? In my research, I have found a memory technique that could inform or suggest a model for managing this information space. The Greeks perfected a mental information storage technique called a memory palace. Can exploration into this information space lead to changes in the way we visualize information?

So much data is gathered about me and my life that representations of myself are recorded in the virtual memory of computer networks. This data, such as bank statements and credit history, are extracted from my world. This data repeats and uses so much space from our world that the idea exists of the body double or electronic double. This personal information is how I am represented and exist in this other realm. Whenever I buy something with a bankcard or a credit card, that information about what was purchased is permanently linked with a profile of me. Corporations in a never-ending search for information gather this data. They call it consumer profiling. Another example is Easy Pass, an automated tollbooth on all of New York State bridges, tunnels, and tolls roads. The user has a badge affixed to their car. When the car travels through a tollbooth the badge is scanned and automatically billed for the trip. Then our government stores a record of each citizen's travels. This information is a representation people in the digital realm. By living in our contemporary world, we exist in the data world.

Today, the whole Earth is mapped with Geographic Information systems. The GIS movement has paralleled the growth of information technologies. Within a desktop computer, addresses on a map can be linked with data base information. This can be visualized as a map of the United States with a flag on each address. Each marker carries detailed information about that location.

“So, why is any of this important? And how does it affect you? Anyone with even a little imagination can see how a system that can integrate and analyze huge data bases with spatial data to create targeted, specific results in the form of maps, graphics, projections, etc. can be misused. And it is.”

(Manuel 16)

Another way of interacting with this data space is when I use my personal computer. On the computer desktop I use objects like trashcans and folders. I know these desktop icons are not real but represent objects that exists in another world that act the very same way. Through the use of allegorical machinery, interacting with desktop icons becomes real. Allegories commonly use a description of an abstract idea to stand for something else. On the desktop, there are spatial representations of these abstractions, in the sense that the allegory is the symbol and the machine is the computer script that does the task behind the scenes.

Technically the icon is linked to a program that executes the task. Instead of entering the program by line entry, I click on the icon that is linked to the program. The designers of Internet and computers have now placed these tools on a huge relational database (the internet) and arranged it textually. To clarify, the Internet is ordered by listing the text used to describe each page. (meta tags)

Hypertext documents have opened up new ways to understand connections. Hypertext is a highlighted text link embedded in the document that is connected to another document. I read and extract information in a new way. A text is no longer displayed in a straight line read from beginning to end. With hypertext the reading path is like a network or a web. Information moves and is received in a new structure allowing the me to move laterally to create my own path. Computers have changed the way I write. Traditional typewriters work in a linear fashion, that is when a word is typed it is permanent. I am unable to undo a word or check it's spelling. With cut and paste, options not only are corrections made more easily but also whole blocks of text are free to be moved and arranged at will. This has increased unlimited creative options for me, as I am unable to type and spell well. This method can only exist on a computer database or the Internet with its huge relational database.

This is one way to access the data dimension. This type of word processing is gradually changing the way we write but only for those fortunate enough to have access to computers. Hypertext has not changed the way we write in a worldwide level but has established the idea of information network. A network of decentralized control of information, a different kind of information explosion has happened with the Internet. We can draw a connection with print technology. The

printing press had a similar effect on the control of information in the 1600's when Martin Luther printed his Bible it broke the hierarchal power structure of Catholic Church. His bible enabled people to interpret God's work as they pleased. Also, a movement to document everything in the world in the form of dictionaries and encyclopedias started. As more people started to read, more people gathered their information from newspapers and pamphlets. Today, the Internet and its interdependent hypertext have decentralized information in an equally important way to movable type and the pamphlet structures that followed the utilization of the movable type. The Internet with its hypertext frees information. No longer does one authority have all the information, as many locations can store the same data or data that expresses different points of view from authority. Examples of similar responses to technology in Western history help illustrate the impact of hypertext now. Now, with the Bureaucratic need to determine and categories information about people a huge amount of data has been gathered. As the density of this system increases the network tends to stack and multiply to become a multidimensional space.

The question arises, how do we navigate this space. Recently a several companies like ThinkPad have established programs that assign computer graphic icons to represent abstract information. Companies create simulated 3d navigable databases serving business, education, entertainment, and multi-user needs. It might look like this: visualize the contents of your hard drive arranged by color, size, and shape. Each form represents personally arranged information and is used by moving throughout these shapes and selecting them. Visually it is quicker and easier to scan a digital simulated space for information than it is to read text lists for content. It is different way of looking at information, which could be better for some to understand and use. Another example could be an insurance agent who walks in a forest of premiums. Each natural looking object is linked to the files. The user moves through the simulation of a nature scene that is really a personally organized file structure (desktop).

The above examples represent how abstract information can be represented graphically. This way of looking at information with forms is not new to 3d web and virtual reality. Similar examples existed in ancient times. There was a method of storing information used in ancient times

that did not use any type of external recording device. Ancient people found a way of remembering information without writing it down.

The Gnostics developed a memory technique that enabled vast amounts of information to be stored. It was used in the by the Greeks times to the middle ages. Rhetoricians such as Seneca used this mnemonic device. The basic setup was for the user to construct an imaginary palace or structure in one's mind. This space would be filled with sculpture and architectural details. Then one would attach what one was trying to remember to a specific part of the interior, linking the idea with form. To recall the information, the user would enter the space and "see" the space and "find" the particular sculpture to recall the desired information. By the time the printing press came into use this technique was used less and was largely forgotten.

"In the second century BCE, the Roman orator Cicero imagined inscribing the themes of a speech on a suite of rooms in a villa, and then delivering that speech by mentally walking from space to space. Establishing an equivalence between written word with different forms of spatial configuration."  
(Davis 591)

This memory space helped build society by collectively remembering information that was used to run the society. In this way the mnemonic technique played an important role in how our society was shaped. I find it interesting that a possible model for our data dimension was used thousands of years before now. This suggests that we have already "been" in these environments or have been used to thinking in this way. The total sum of the data load is overwhelming in our contemporary world. We have fashioned tools to manage an overwhelming amount of data on the Internet and our hard drives by converting that data into images. With abstract data represented graphically we can begin visualize this space of information in order to craft our data world.

## Part Two

When I started to write about my artwork the question came up, why do I make what I make, and why use computers to make it? My first thought was that I like to. I think, in general that is why we all do what we do; because we like it. But that is too simple of an answer. I use technology to make my work because it provides a frame in which to work, which suits my way of thinking.

I combine sound and images in a desktop video-editing program because it is the best tool for me to express my narrative storytelling. I have a peculiar way of seeing the world and use video as a way of letting people in to this world. The fictions that I spin are the result of my observations. In videos like *Wonder Woman, 2002* Through a combination of voice and image I explore the notion that language creates reality

Some of my videos have fewer spoken words but are narrative in another way like in *GWB 10/15/2001*. This video depicts a slow motion post 9/11 sunset over New York City from the George Washington Bridge. The actual parts of the video signal are evident in the fields. Moving shadows of buildings suggest the former skyline where the World Trade Center towered. The juxtaposition creates a phantasmagoric image where the ghosts of the WTC are fading into the present day skyline.

When I added an interactive element to my images, my work took on an entirely new dimension. Peter Wiebl writes about the notion that cd-com could exist as an art form that is distinct from gallery strategies. I started with the idea of electronic portfolio that grew to the creation of digital worlds. My interactive work *Distortion*, I explore interactive sound mixing and interface design.

In my print/painting/drawing work, I design fictions in different ways than my time-based work. Beyond simple compositional changes, making images in Photoshop offers many possibilities that I cannot make without it. By exploring markmaking in a digital context, I question what does markmaking really mean in the computer, opposed to “by hand”. I play with the coldness of digital binary code by importing my hand drawn texture and line via scanning I transform images beyond what my manual skill can provide. The personal computer changes my working methods in that I can make several sketches then choose the most interesting version to complete.

My “*Bub*” series of digital prints embraces a quest for beauty and form generated from within Photoshop. I created amorphic forms that perhaps could be future interfaces for digital worlds yet to exist. These forms are visually related to futuristic, scientific fiction in culture. They are also akin to shapes that are currently part of popular contemporary visual consciousness.

With my imaginary landscape series, my intention is to create a fictional world that unfolds for the viewer. I also intend the viewer to move in and around the space. These prints explore a type of mapping in which one could move and interact. If these could be interactive worlds, I like the idea that a print can be a document of an electronic journey. Here again language creates reality, in this case a visual reality.

Structure and how parts fit together fascinate me and constantly informs my work. I have been involved with artistic systems research, in which I create, modify, and hybridize existing systems. A hybrid system is when more than one system is combined to make a new system or context. I am interested in visual issues concerning deconstruction of systems, systematic layout, and mapping.

I came to rearrange a library of icons from a drawing program called ConceptDraw. This program is for making flowcharts and diagrams and similar systems for business and engineering. I found ways to exploit its creative options by exporting my recombinations of icons into digital prints. In this program, all of the library icons can also be hyperlinks. I found these icons interesting and intuitively rearranged them to make a large print. I created a new context for these icons. A new space began to live in the arrangement. New meanings grew out of how these icons

related to each other. In the large digital print, *ConceptDraw Series 5/15/2002*, 8'x30', I included small video monitors attached to the paper. Images on the monitor were moving versions of images on the print. I placed video in a print to suggest the digital space.

In the print, *5/15/2002*, shown in my thesis show, I depict a cell phone contained in a cage made up of the very radio tower that makes cell phone technology work. In a roundabout way I suggest that perhaps cell users are trapped by their use of technology. I do not come out and declare cell phones are bad.

Technology is neutral. It is up to the user to determine its use. In my work, politics resides just under the surface. I am not interested in hitting my audience over the head with issues. The exact meaning is hidden in layers of my work. I let the audience uncover layers of meaning on their own, rather than telling them what to believe. My purpose is to engage the audience and allow them to come to their own conclusions about issues connected with my work. The lack of absolutes reflects the fact that the world is not black or white but rather in shades of gray.

My work reflects the world that I live in. Technology influences not just the tools but also my thought process. I see my future work continuing to reflect that.

For future works, I want to continue my video work with emphasis on narrative. I have new plans on how to execute this. I need to make the vocal narrative tracks before attaching it to images. I found during the creative process that the soundtrack was the hardest to get right. By completing the audio first, the video seems to fall into place. I want to return to pen and ink drawing, and intend to combine it with a video game engine. It could be an interactive painting in which the user could navigate a memory palace.

The future of world technology on the other hand is not so easy to predict. As more data is collected from this world, we will need to manage it in the digital world. As the load increases, we will continue to create tools in which to manage it. It seems the authorities enjoy the efficiency that computers afford. Neil Postman in his book *Technopoly* says:

“Bureaucracy as social institution works on the principle of defining the essence of people and using that distilled information as a way to control society. Naturally, bureaucrats can be expected to embrace a technology that helps to create the illusion that decisions are not under their control. Because of its seeming intelligence and impartiality, a computer has an almost magical tendency to direct attention away from the people in charge of bureaucratic functions and towards itself, as if the computer were the true source of authority.”  
(Postman 115)

My artwork is directly informed by my position within contemporary technological surroundings. I use technological methods to analyze and demystify technology itself. I find the structure of this surrounding technology a framework in which to react against. I subvert the bureaucratic, military, commercial, industrial, complex by introducing an element of play into systems unintended for such purposes.

I let the parts of my work show to emphasize the system as I often find them more interesting than the whole. I make parts of the system visible as evidence of this process. I embrace paint drips, pixels, and distortion as they display my honesty to materials and the inherent process. More importantly, I have found that interesting things start to happen in the slippage or glitch. It is interesting to research the word glitch. It comes from astronaut slang and means an unwanted momentary change in electrical voltage. The intended use for technology machines is business. Computer art is created in a type of glitch. This in between point is where art will be made in the future. Artists who make artwork with technology reside in this glitch and create meaningful content for contemporary culture.

## Works Cited

Davis, Erik. "Techgnosis: Magic, Memory, and the Angles of Information." Flame Wars: The Discourse of Cyberculture: The South Atlantic Quarterly, Ed. Mark Dery, Durham: Duke University Press, 1993. 591.

Manuel, Silvio. "The Geospatial Reolution." 2600, The Hacker Quarterly Fall 2000: 16.

Postman, Neil. Technopoly: The Surrender of Culture to Technology. New York: Vintage, 1993.

## Annotated Bibliography

Baldner, Joshua Graham. The Telephone: Impact and Expansion  
<http://www.beloit.edu/~amerdem/students/baldner.html>.

A brief history of the telephone and telephony.

Baudrillard, Jean. Jean Baudrillard. Translated by Richard Lane, New York: Rutledge critical thinkers, 2000.

Examines key ideas of Baudrillard, including The Technological System of Objects and simulacra.

Benjamin, Walter. The Work of Art in the Age of Mechanical Reproduction. Illuminations. translated by Harry Zhon and edited by Hannah Ardent. New York: Harcourt Brace and World, 1968.

Benjamin talks about how an image of an object changes the essence of that object

Birkets, Sven. The Gutenberg Elegies. New York: Fawcett Columbine, 1994.

Discusses the Fifteenth-century communication shift from handwritten documents to print.

Bukatman, Mark, Gibson's Typewriter. Flame Wars: The Discourse of Cyberculture. Ed. Mark Dery, Durham: The South Atlantic Quarterly, Volume 92, Number 4, Duke University Press, 1993.

Bukatman makes interesting connections about the end of handwriting and establishment of typewriter as an early human/machine interface.

Calcutt, Andrew. Whitenoise: A to Z of the contradictions in cyberculture. New York: St. Martin's Press, 1999.

Categorizes the paradoxical aspects of new media and the inherent contradictions in cyberculture.

Crary, Jonathan. Techniques of the Observer: on Vision and Modernity in the nineteenth century. Cambridge: MIT Press,

Crary examines early optic-mechanical devices and the effect on 19th century stuff.

Dery, Mark. Flame Wars: The Discourse of Cyberculture. Ed. Mark Dery. Durham: The South Atlantic Quarterly Volume 92, Number 4, Duke University Press, 1993.

Dery offers a concise overview of early 90's Internet culture

Davis, Erik. Techgnosis, Magic, Memory, and the Angles. Flame Wars: The Discourse of Cyberculture. Ed. Mark Dery, Durham : The South Atlantic Quarterly, Volume 92, Number 4 Duke University Press, 1993.

Draws comparisons between Gnosticism and cyberculture and VR

Fitting, Peter. Technoculture: The Lessons of Cyberpunk. Edited by Constance Penley and Andrew Ross, Minneapolis: University of Minnesota Press, 1991.

Illustrates the connection between the cyberpunk rejection of the commodities Internet and science fiction writers.

Forrest O.D., Elliott B, Visual Imagery: an Optometric Approach. Duncan, Ok: Optometric Extension Program Founddation, 1981.

Discusses how our bodies perceive the world around us. He classifies ways of seeing and how the human brain classifies that visual information.

Gibson, William. Neuromancer. New York: The Berkley Publishing Group, 1984.

Science Fiction novel in which the lead character is a minor data thief.

Harvey, Doug. Glam Gnost (Gnostic action movies provide role models for men, paradigms for the art in society!) Art Issues no.64 Sept/Oct 2000. 16-19.

Harvey argues that a theme in several popular movies, an ancient Christian doctrine called Gnosticism is prevalent. Included that belief is that the world we perceive is an illusion generated by a malevolent higher power.

Hickey, Dave Air Guitar. Los Angeles: Art Issues Press, 1997.

Writes that images only have power as an illusion, and that the only interesting part is that illusion.

Hiem, Michael. The Metaphysics of Virtual Reality. Oxford: Oxford University Press, 1993.

Compares Tao rejection of Technology to the west's semi-embrace of machines.

Lunefeld, Peter. Snap to Grid: a user's guide to digital arts, media, and cultures. Cambridge: Massachusetts Institute of Technology, 2000.

Landow, George P. Hypertext the Convergence of Contemporary Theory and Technology. Baltimore: The John Hopkins University Press. 1992.

Compares importance of the invention movable type with hypertext. Also discusses the lag time of technology Gutenberg

Kadinsky, Theodore. The Unabomber's Manifesto.  
<http://files.steakandcheese.com/misc/unabombersManifesto.txt>

Tangential work centered on an anti-technological theme. Kadinsky feels that the emptiness felt by modern man is a direct result from technology.

Paepke, Owen. The Evolution of Progress, The End of Economic Growth and the Beginning of Human Transformation. New York: Random House, 1993.

Visionary thinker Paepke distills the progress gained from the industrial revolution. He outlines the end of economic progress and the beginning of human progress.

Postman, Neil. Technopoly: the Surrender of Culture to Technology. New York: Vintage Books. 1999.

Technopoly self –perpetually system wherein technology

Sack, Warren, Painting theory machines, Baurillard, Delouse and Guattari on the differences. Art and Design v11 May/June1996. P. 80 to 92.

Stafford, Maria Barbara. Artful Science: Enlightenment Entertainment and the Eclipse of Visual Education. Cambridge: Massachusetts Institute of Technology, 1994.