editorial

by Patrick Lichty

Hello, Katrina! So Much for New Media Art
Questioning the Grid

As a resident of Baton Rouge, LA, I could not remain unaffected when I witnessed, although mostly by phone, the events surrounding the destruction caused by Hurricanes Katrina and Rita on the US Gulf Coast last fall. Even six months after the event, many friends in the New Orleans art community (New Media and others) remain either decontextualized, left without homes, or without possession. The infostructure of the Southern United States was immensely disrupted, with electricity and telecommunications interrupted for weeks. Since I have deep ties to the New Orleans art community, my attempt to address the social issues of the situation would probably result in pages of pathos and frustration. However, there is another conse-quence of the event that is important to discuss -- the crash of the techno / informatic infrastructure.

After the hurricane, power was down, landlines were mostly overloaded or non-functional, mobile phones did not work either and the Internet was not accessi-ble. It was a reminder that treating the virtual as mate-rial existence is not just a case of reification but that the virtual is indeed highly dependent upon the physi-cal. When the two, in their interdependency, crash, the ephemeral nature of the infostructure is made mani-fest.

I have to point out that this editorial was assembled over a period of months, and as I finish it, my feelings about the situation are stronger than ever. The rebuild-ing of New Orleans (if it is ever accomplished) will probably take years, and as I sit in Baton Rouge and Austin completing this text, I feel a certain reticence in relying on centralized power and information grids. The energy providers in Louisiana are bankrupt, and a state that was working towards becoming part of the "Information Economy" has been dealt a serious blow. The situation highlights the delicacy of the technologi-cal structures on which "digitally oriented" people, including new media artists, depend.

This ephemeral nature of the support structures for new media -- the Internet, telecommunication grids, the power grid and even the long-term viability of the power production industry itself -- elicits a space for reflection. The anxiety related to new media preserva-tion and support is compounded by the very fragility of the overall foundation upon which the medium relies. In short, new media bears its wonders as long as power, data, and networks are available.

My key point here is that new media is founded on systems that are brittle, which raises a panoply of issues ranging from intermittent operation to private / authoritarian control. This may seem paranoid, but I am deliberately "dramatizing" to make my point. What seems obvious to me is that many of the platforms used for the creation of new media processes (i.e. desktops, network servers, the projection apparatus, and other capital / resource-heavy devices) are ques-tionable in their long-term viability, both from the sense of preservation and even basic operation.

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I am not suggesting the jettisoning of entire integrated vertical conglomerations of technologies (yet), which are dependent on oppressive / colonizing agendas of global capital, distribution grids that are difficult to sus-tain, as well as unsustainable levels of energy produc-tion. In short, I am a believer in Malthusian limits to material expansion, and this requires novel strategies for continuing the development of a technological cul-ture. What seems to be called for is a critical attitude towards current paradigms of technological (i.e. elec-tronic) art, networks and infrastructures, which may or may not be available at large and may be in or out of control of the user. This critical approach could include a number of strategies, ranging from ad hoc networks, solar works, biomass power, embedded processing,

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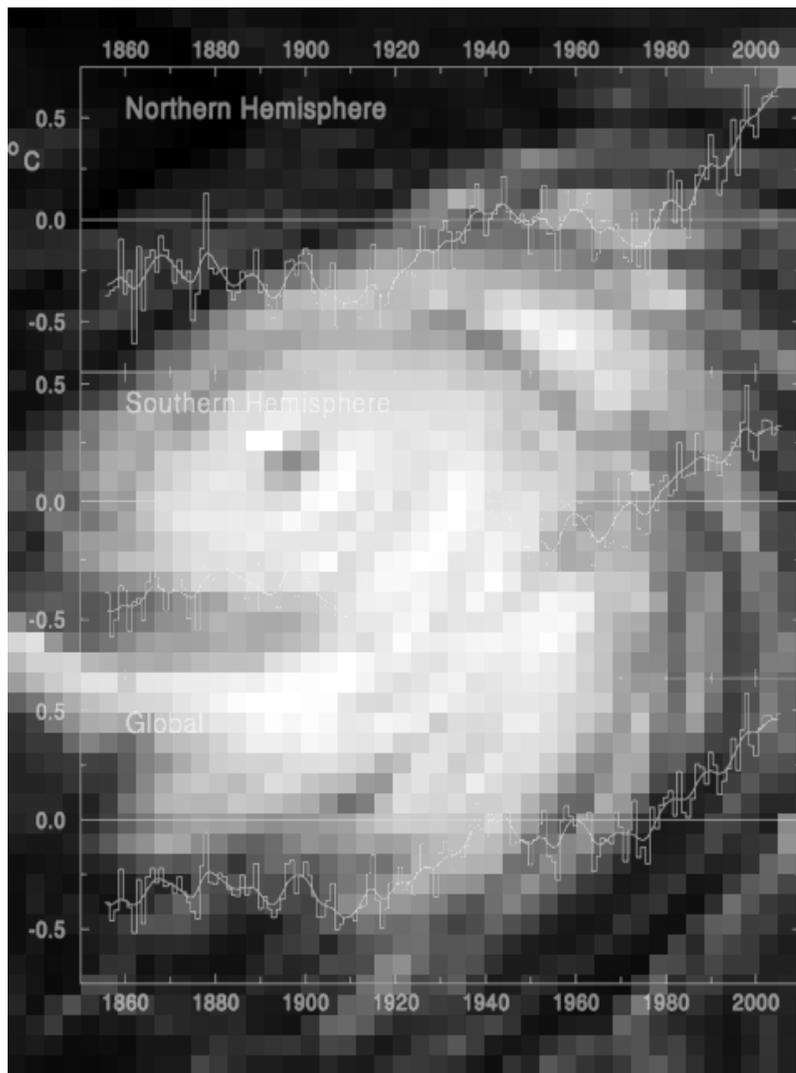
retrotech, DeadTech and Digital Minimalism to Open Source, as well as game platform hacking, but these are only a few options.

The benefits of these strategies are multifaceted. By freeing oneself from the fetters of the extant infrastructure (as much as possible), or at least being able to engage with is at one's own discretion, new media artists become less dependent on the "Net" (Matrix?). Yes, there are still multiple linkages with the modes of production of the technology itself. However, I am not suggesting a Luddite overthrow of the extant technological culture; merely an indeterminate relationship with the support grids that are more or less reliable or desirable depending on what one needs to achieve.

I might be using some polemic language here -- "oppressive," or the Internet as "The Matrix." These are extremes based on the assumption that it may be more prudent for new media artists to not count on the grids' reliability in the future. From a pragmatic standpoint, grid independence (as far as it goes) seems to be a sensible strategy.

Being able to choose to connect to the power / information grids -- or choose the way one connects -- creates an immense amount of freedom. Let's just take the example of new media artists in the gallery. Unless you are showing at Bitforms, http or Postmasters, most galleries are going to lack a few things. Some gallery staff has trouble maintaining DVD players, let alone networked interactive installations. I was in an exhibition with Kevin & Jennifer McCoy last year -- *Dreaming of a More Better Future*, Cleveland Institute of Art, Oct. - Dec. 05, -- where I noticed that their kinetic video works were "plug n' play." This eliminates the need for special maintenance of the work, or what Gregory Little and I have referred to as "attended" works. For extended runs, the artist can obviously not always be present.

Secondly, if new media artists are willing to consider themselves as being "globally" viable, and viable in terms of an "object" (which is not necessarily the case in new media artworks focused on process), the work should be able to work independently of the grids. This may sound ludicrous when taken to its logical extreme, but it may be a good thought experiment. Consider someone who would like to run a digital video installation in the middle of the Gobi Desert, or in the middle of Greenland, or in the heart of the Amazon, or do a live performance from a disaster zone... this example may admittedly be contextually questionable, but the objective here is to ponder the possibilities of grid independence, which may make for advances in tech-

nological arts, or technology in general. Once again, I am making fairly extreme statements just to illustrate a point. Coming back to my original point of reference, even if it might seem a bit surreal: what if there were to be a networked performance during the week after Katrina? Could a Bey-esque Autonomous Zone be created for the establishment of expression / interaction / communication?

Until recently, I would have said that creating ad-hoc information nets is a questionable enterprise, but recent developments offer some possibilities for their establishment. One analogy that comes to mind is that of the dial-up bulletin boards of the 1980s where e-mail would travel by means of a digital "pony express," transferring across the affiliated BBSs in a matter of a couple days. This may be too long a time period for the contemporary user, but when it comes to sidestepping a collapsed infostructure, an exchange taking hours, or a day or two, would be preferable to none.

The ideas I'm outlining here are based on two discussions I had in the past: at one point, Marc Garrett of Furtherfield in the UK and I were talking about the potentials of solar power; and then Stephan Hillerbrand (of ScreenSavers) and I were playing with

the Virtual Private Networking option on my Mac PowerBook. Considering that there are new WiFi standards in the making like WiMax, with coverage up to a few miles from one node, and numerous cities are in the process of going wireless, it seems like there is the possibility of nets becoming relatively nomadic.

Consider this scenario: hybrid power computers (solar / grid) with wireless transmitters capable of creating virtual personal nets with at most a few miles between each node. Each node (mobile computer) would have -- as part of its cellular networking protocol --instructions to relay mail packets, files etc. in a type of peer-to-peer arrangement. The nodes would check for surrounding nodes when in use, and synchronize information as needed. The transmission quality of the decentralized net that I am proposing here would be directly proportional to the density of nodes in an area. It would also exhibit a "viral" form of information sharing, as new packets could be shared even through "glancing contact."

Perhaps this discussion has gone a bit far off the beaten path and suggested what some might consider a fairly fanciful solution to "flat" or semi-autonomous networking. However, technologies such as Internet Telephony (or VoIP) prove that one technology can sidestep the other in more "fluid" technological architectures. Granted, VoIP is still dependent on the Plutocratic control model of the Internet, but it sets a precedent for a potential major shift in infostructural paradigms. And, with minor technological developments, there are possibilities for technologies with power sources and communications practices that challenge the only semi-decentralized power structure of the Internet.

What is important here is that natural catastrophes tend to illustrate the inherent fragility of technological infrastructure. If technological agency and cultural forms such as new media wish to fulfill the promise of "freedom" that was forecast in the 1990s, the technologies need to work independently of the support backbones that are in place. Networking via embedded processing, self-hosting cellular ad-hoc nets, alternative charging strategies, and other approaches could create self-configuring nets in unsupported or devastated areas. Sure, there are some downsides to these strategies, but my hope would be that positive social engineering can prevent these problems as much as possible.

In the disorientation I felt from even being near the Hurricane Katrina disaster, I found myself faced with many questions regarding the nature of our technological nets, how we rely on them, and their ability to "catch

us" in catastrophic events. Katrina showed me that our nets aren't as resilient as we would like them to be, and that other solutions for independence and / or robustness need to be discussed. As an artist, I couldn't help thinking of small institutions' problems in supporting new media as a metaphor for technological disaster zones. Regardless, it's time to reconsider our infostructural models and our dependence on centralized / institutional sources of power and information, and to look at the options we have.

Editor's Note: This editorial was written over a period of several months. Since then, a number of developments have taken place. The decentralized infostructures that I wrote about in 2005 are now frequently discussed as Mesh Networking and have increasingly gained attention. I personally invite anyone with an interest in this topic to consider a contribution to this journal.

As New Orleans tried to reestablish communications following Hurricane Katrina, existing infostructures were repurposed to provide WiFi in much of the downtown area. As the city continues to rebuild, the growth of free WiFi in downtown is watched enviously by cable companies and telecomms as potential income streams. It is ironic that a public resource that could result in accelerated redevelopment of a devastated city would be seen merely as a source of income when its potential is far greater. As Chomsky has said, not all wealth resides solely in the economic. I hope that the mayor chosen in the recent mayoral elections will understand this. New Orleans needs all affordable resources to assist in its recovery.