Drunk on Technology, Waiting for the Hangover: A Test Plot

AUTHOR

Paul Hertz
Theoretical Papers Chair
The Collaboratory Project
Northwestern University
Evanston, Illinois USA
paul-hertz@northwestern.edu

The texts are structured by a Graeco-Latin Square of order 4, a combinatorial structure frequently used in agricultural test plots, typically for combining plant strains with different fertilizers in such a way that no plants or fertilizers are repeated in any row or column of the square. The order of texts was determined by random operations that preserve the properties of the square and keep the text numbered 16 in the last slot. The texts are read left to right across the square.

Plants: Network, Collaboration, Art, Emergence
Fertilizers: Activism, Bandwidth, Naming, Wildcard

In addition to sources cited in the text, I have paraphrased or loosely quoted Ted Nelson, Umberto Campagnolo, and Geert Lovink. John Cage's lectures, which flow from his compositional techniques and philosophy, are a clear inspiration.

1. Art/Activism: Technological progress can rather easily channel utopian desire, for both derive the meaning of individual actions from a teleological myth. If the *realpolitik* hidden behind technotopia appears ethically abhorrent, what strategies can artists working with technology adopt to combat it? I will boldly assert that investigation, analysis, criticism, and humor still work. These are the tools of culture in which we may retain at least a secular faith, even in this age of exhausted narratives.

2. Emergence/Bandwidth: Mark C. Taylor, in his recent book *The Moment of Complexity: Emerging Network Culture,* suggests that networks offer a organizational scheme radically unlike the rationalized grids and hierarchies that he sees prevailing from the Enlightenment through Modernism. The network is both substantive and emerging, a structure and a paradigm. Networking displaces the grid. Topology is destiny.

3. Collaboration/Wildcard: A number of licensing schemes exist to support collaborative development of software. These are variously known as free software, open source, or public license. Profit enters the picture through consulting, service, and support, not through sales. Anyone with the right skills can modify and improve free software—but they can't sell it. On the other hand, they can contribute their improvements to the further development of the software. Collaboration is built into the economic model.

4. Network/Naming: I say "broadband" and you're likely to think of movies on demand. It's a commercial buzzword, but so now is "Internet." According to Joel Mambretti, Director of the International Center for Advanced Internet Research, researchers are alarmed by how quickly mass entertainment media appropriate enabling technologies. With "Internet2" reduced to hype, research adminis-

trators have to scrap "Internet3." They cast about for new names to mark the territory or stick with angular acronyms without a whiff of glamour.

5. Network/Wildcard: With spam and porn as its most egregious growth industries, the utopian bloom has faded from the Internet. Though it was long suspected that culturally-determined signs of identity and their attendant privileges, ironies, and afflictions were bound to persist in the virtual world, for one giddy moment the vision of a world bound together by an emerging networked consciousness hovered over the future. Whether technology could further humanity's collective voyage from effective mass illiteracy to critical thought and self-determination [Umberto Campognolo] seemed too serious a question then, but it is perhaps the only question still worth asking now that the party is over.

6. Collaboration/Naming: Only a fraction of the world's people have a presence in cyberspace: the rest are outsiders. On the border, between inside and outside, objects and persons acquire names, differences are constructed. When insiders and outsiders meet to collaborate, let them first exchange names. "Hello, we call this progress—what is your name for it?"

7. Emergence/Activism: As networks become more densely intertwingled [Ted Nelson], perhaps what emerges is not a new consciousness bootstrapping itself into existence, but new forms of social organization—new ways of making decisions about our lives we sweep away the hype and mysticism about world-wide networks we may even have cause for optimism.

8. Art/Bandwidth: So where should the *ambitious* artist set out to work with technology? Look to the frontier—where the bandwidth breeds and the funding flows. Where the lonesome engineers have toys they haven't learned to play with. Where the audience is tiny, but you'll eat.

9. Emergence/Naming: What emerges? A new consciousness? A new world order? Who will have the power to name emergent phenomena in world ecology, in human society? Is it our responsibility? If we don't name it, does it exist at all?

10. Art/Wildcard: Let a thousand hybrids bloom. Against the nemesis of *das mediale Gesamtkunstwerk* [Geert Lovink], totalizing media art, let a thousand recombinants contend. Let resistant versions of the truth work in the interstices, wedge themselves into the cracks in the media wall. Hybridity is not a choice, but the condition of survival.

11. Network/Bandwidth: In the beginning, the Internet was not de-

signed for person-to-person communication. It also wasn't designed to withstand an atomic blast. Both came later. First computers talked to computers. Today, some of the new broadband technologies are also dedicated to machine-to-machine communications. In fact, most network traffic is still machine-to-machine data exchange. Who needs bandwidth? The technology itself needs bandwidth. Let's grow some.

12. Collaboration/Activism: In contrast to forms of activist art where getting arrested validates the work (no publicity is bad publicity), consider the strategy of cultural animation. In this model, which borrows from the work of Paolo Freire, artists work within a community, getting to know people directly, understanding their circumstances first hand. The artist may have to sacrifice autonomy and protagonism, but the work will be rooted in and emerge from the community. And yes—you may still get arrested.

13. Collaboration/Bandwidth: Broadband communications technology makes the Internet as media feeding tube technically feasible—indeed, likely—but collaborative models of communications have not been entirely displaced by models of passive consumption. Collaborative models have already met with considerable success at the low end—perhaps because megamedia isn't much interested in low bandwidth. If the economic barriers are low enough, medium bandwidth networks will also become a tool for building communities. At the high end, the issue may be how to keep collaborative models viable during the transition out of the lab, since they are at the frontier not just of technology, but of commodification.

14. Network/Activism: Coordinated worldwide protest against the latest war would not have been possible without the Internet. Primitive email and listserv technology gets things rolling. As events develop, tactical media steps in. Participants, not professionals, report on what's happening, with whatever bandwidth is available. Tactical media make no pretense of non-partisan observervation—but at least they offer alternatives to the predigested cud of televised news.

15. Art/Naming: I lived in Spain during the transition from dictatorship to democracy, and had the privilege of participating as an observer, writing about events to friends in other countries. The criticism I most frequently heard leveled against artists who wanted to be political activists—though by no means confined to them—was *afan de protagonismo*, the desire to be a protagonist. Self-designated, of course. Naming is not enough, whether one is calling up the devil or seeking political change.

16. Emergence/Wildcard: From the *Statistics of Deadly Quarrels,* by Lewis Richardson, the following table of data.

From the show *Turbulent Landscapes*, from 1995 at the San Francisco Exploratorium, Juanita Miller's sculpture, *Point of Criticality* (http://www.exploratorium.edu/turbulent/exhibit/criticality.html). In Point of Criticality, seeds rain down onto a heap of corn until it becomes unstable and spills grain into the conveyor system that feeds it. Like the frequency and the number of deaths in wars, constantly fed with new population, the frequency and size of avalanches in Miller's heap of corn obey a Power Law Distribution. Wars also obey the law of distribution of power. With careful study, avalanches can be avoided and their severity reduced.

1820 to 1945

Number of Dead	Number of Wars
1000	188
10,000	63
100,000	24
1,000,000	5
10,000,000	2

Lewis Richardson, *Statistics of Deadly Quarrels.*
Cited in Axelrod & Cohen, *Harnessing Complexity,* Basic Books, 2000