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CONNECTIONS

## A Crunchy-Granola Γ th From Macramé and LSD to Wikipedia and Google

By [EDWARD ROTHSTEIN](#)

The pages are yellowed, the addresses and phone numbers all but useless, the products antique, the utopian expectations quaint. But the “Whole Earth Catalog” — and particularly “The Last Whole Earth Catalog,” published in 1971, which ended up selling a million copies and winning the National Book Award — has the eerie luminosity of a Sears catalog from the turn of the last century. It is a portrait of an age and its dreams.

Deerskin jackets and potter’s wheels, geodesic domes and star charts, instructions on raising bees and on repairing Volkswagens, advice on building furniture and cultivating marijuana: all this can be found here, along with celebrations of communal life and swipes at big government, big business and a technocratic society.

Can this encyclopedia of countercultural romance have anything to do with today’s technological world, a world of broadband connections, TCP/IP protocol and the Internet? The Internet, after all, began during the cold war as an attempt to create a network of computers that would be resilient in case of nuclear attack. Its instigator, the [United States Department of Defense](#), was at the very center of the culture being countered by the “Whole Earth Catalog.” How could the romantic, utopian culture of the 1960’s, with its deep suspicions about modernity and its machinery, be closely linked to one of the most important technological revolutions of the last hundred years?

Yet as Fred Turner points out in his revealing new book, “From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism” (University of Chicago Press), there is no way to separate cyberculture from counterculture; indeed, cyberculture grew from its predecessor’s compost. Mr. Turner suggests that Stewart Brand, who created the “Whole Earth Catalog,” was the major node in a network of countercultural speculators, promoters, inventors and entrepreneurs who helped change the world in ways quite different from those they originally envisioned.

Mr. Turner, who teaches in the communication department at [Stanford University](#), is rigorous in his argument, thorough to the point of exhaustion, and impressive in his range. The basic premise, though, is not unfamiliar. A decade ago the cultural critic Mark Dery suggested in his book “Escape Velocity” that the PC revolution could well be called “Counterculture 2.0.” Other writers have also pointed out uncanny overlaps.

And some of the anecdotal evidence is familiar. [Steve Jobs](#) created and promoted Apple as a countercultural computer company, most famously in the 1984 television ad that associated it with the demolition of a

totalitarian Big Brother. Even I.B.M., in promoting its first PC, tried to undermine the computer's association with corporate power, marketing its machine using images of [Charlie Chaplin](#)'s tramp, who had twitted the gears of industry in "Modern Times."

Connections were even made by the participants. Theodore Roszak, whose 1969 book, "The Making of a Counter Culture," popularized that era's doctrines, later asserted that computer hackers — "whose origins can be discerned in the old Whole Earth Catalog" — invented the personal computer as a means of "fostering dissent and questioning authority." Timothy Leary, the psychedelic maestro of that period, declared that "the PC is the LSD of the 1990's."

Soon after publishing "The Last Whole Earth Catalog," Mr. Brand started to write about the computer scene, helped create the "Whole Earth Software Catalog" and, in 1985, became a founder of the WELL — the Whole Earth 'Lectronic Link — a pioneering online community. "As it turned out," Mr. Brand once explained, "psychedelic drugs, communes, and Buckminster Fuller domes were a dead end, but computers were an avenue to realms beyond our dreams." By the 90's, those realms were celebrated by the magazine Wired.

It might be argued that so prevalent was the counterculture, and so experimental and energetic were its most vocal proponents, that it would have been surprising had many of them not found their way to the computer revolution. But Mr. Turner demonstrates something more essential in the continuity.

First, he suggests, we are mistaken in thinking that the postwar technological world was dominated by hierarchies and rigid categories. Under the influence of the mathematician Norbert Wiener, it became increasingly common to think of humans and machines as interacting elements of "cybernetic systems" — organisms through which information flowed. This also led to a different way of thinking about living organisms and their networks of interaction.

Marshall McLuhan wrote in 1964: "Today we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned." Buckminster Fuller proposed the idea of a Comprehensive Designer, a creator who would embody "an emerging synthesis of artist, inventor, mechanic, objective economist and evolutionary strategist."

These writers were the patron saints of the "Whole Earth Catalog," their books appearing alongside macramé and carpentry manuals, their ideas presumably brought to life in the commune, where the natural and human world would be bound together, creating a single organism from which new possibilities would unfold.

By the 1980's, Mr. Turner argues, similar fantasies were inspired by the computer. It had freed itself from corporate control and ownership; it was also capable of connecting with other computers in communities like the WELL (which John Perry Barlow, a former lyricist for the [Grateful Dead](#), called "the latest thing in frontier villages"). The Internet, designed to be inherently nonhierarchical, suggested even more grand possibilities, even a revolution in politics and human consciousness.

In the 90's, Mr. Turner says, the writers and editors of Wired believed "they would tear down hierarchies, undermine the sorts of corporations and governments that had spawned them" and replace them with a

“peer-to-peer, collaborative society, interlinked by invisible currents of energy and information.”  
Cyberculture was to be the fulfillment of counterculture.

Ultimately, of course, such fulfillment was not to be had. But the consequences of the association were profound. One reason for the heady pace of innovation during the 90’s is that the motivation was never purely abstract, but was often accompanied by utopian passions. Software development occurred not just in the private realm, but also among collaborative communities that objected to corporate ownership. Even today’s Wikipedia — the online encyclopedia continuously being written by its users — can be traced to these ideas.

But there were also limitations of vision and imagination. For a long time, cyberspace advocates were reluctant to take the problem of mischievous hacking seriously and could look askance at the very notion of copyright in the cyberworld. There was even a strain of countercultural romance in the ways in which the corporate monopolist Microsoft became widely portrayed as an Evil Empire threatening the libertarian Internet. (This is also one reason that Google, which has turned out to be Microsoft’s most potent competitor, made its motto “Don’t be evil.”)

Moreover, so messianic were expectations, that many failed to see that cyberspace was not really a different realm from the hard-wired world of ordinary experience, but would become an extension of it: a place where banking, shopping, conversation and business transactions could take place, where the bourgeois world and an imagined frontier would again have to work out their uneasy relations, and would again face an uncertain future.

*Connections, a critic’s perspective on arts and ideas, appears every other Monday.*

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