

## NERVOUS SYSTEM: THE FIRST SOCIAL NETWORK

BY DAVID KALAT, BRG

*With the aggressive pace of technological change and the onslaught of news regarding data breaches, cyber-attacks, and technological threats to privacy and security, it is easy to assume these are fundamentally new threats. The pace of technological change is slower than it feels, and many seemingly new categories of threats have actually been with us longer than we remember. Nervous System is a monthly blog that approaches issues of data privacy and cybersecurity from the context of history—to look to the past for clues about how to interpret the present and prepare for the future.*

Thirty years before Mark Zuckerberg launched Facebook while attending Harvard, another college town made computer history as the site of the first online social network. As with Facebook, Community Memory of Berkeley, California, combined utopian dreams with online commerce and inspired its users to create a virtual space, where ordinary people could share their personal thoughts with strangers.

This overlap between the worlds of computer science and the Bay Area's fabled counterculture emerged, naturally enough, from a Bay Area countercultural computer scientist. Lee Felsenstein was an engineer at Ampex, an American



electronics company. He was also an antiwar activist and member of the Free Speech Movement who lived in a commune. He and his housemates dreamed of connecting the entire city of Berkeley to a single computer network.

Felsenstein later articulated his goal:

Information could be input from anywhere, accessed anywhere without supervision, just like speech in the town square. Communities could form around interest areas, grow, evolve, calve off or settle into stasis. People could meet through their words, exchange contact information, develop an understanding of who the other person was and in doing so improve their understanding of who they are.

The possibilities for co-operative and concerted action would be real and multiple.

It was an audacious ambition. At that time, computers could only be found in military establishments, universities and major corporations. There was no precedent for ordinary people to use them. The personal computer revolution was years away, and the rise of the Internet decades past that.

Nevertheless, he persisted. Felsenstein was allied with Resource One, a nonprofit started by computer science dropouts from the University of California at Berkeley. Hardt was Resource One's president. An activist and community organizer, she had persuaded Bank of America to help her bring computing to the masses. The Bank donated a Scientific Data

Systems SDS-940 timesharing computer, fitted with a state-of-the-art 50-megabyte hard-disc drive (a beast the size of two refrigerators). This would form the backbone of the Community Memory.

On August 8, 1973, unsuspecting visitors to the student-run record store at Leopold Stokowski Memorial Service Pavilion in Berkeley were greeted with a pioneering sight. Unceremoniously placed in a corner hallway was the “Community Memory”: a teletype machine hooked up via modem to a mainframe. The terminal was encased in a cardboard box, partly to keep it clean and dry, partly to muffle the sound of the teletype. The box was decorated with cartoon doodles; handwritten instructions for using the device were provided on a poster. The record store’s customers could search the Community Memory by keyword to find content and print it at the frightfully slow speed of ten characters per second. For the nominal fee of 25 cents, users could post their own content. A coin slot like the ones used on laundry machines was fitted to the side of the terminal to collect fares.

Felsenstein, Hardt, and the ragtag group of computer scientists and fellow travelers who had joined them along the way did not know what to expect. They had envisioned the Community Memory as an enhanced version of the cork bulletin board that hung above the teletype terminal in that record store’s alcove—a place to swap classified ads and coordinate ride shares, like a 1970s version of Craigslist. It was also possible that Berkeley residents would simply

reject the idea, repulsed by the notion of interacting with a tool primarily associated with wealthy elites and government control.

What transpired caught its creators by surprise. The Community Memory was quickly embraced by the local music scene, which used it to advertise gigs and swap gear. That evolved into more personal conversations about music and politics. Users exchanged bagel recipes and documented harrowing firsthand accounts of surviving earthquakes. This was the truly revolutionary feature: Community Memory became a forum for highly personal conversations conducted anonymously with strangers in public for public consumption. Nothing like it had ever existed.

The founders of Community Memory formed their own non-profit, the Community Memory Project, in 1977. They expanded the scope of service, setting up kiosks around town. They upgraded technology, swapping out the old-time mainframe that occupied the space of a half-dozen refrigerators for a newfangled UNIX server running a text-browser accessible from IBM PCs. Throughout the 1970s and 1980s, many Berkeley residents had their first encounters with computers through these friendly contraptions.

The Community Memory was a resounding success—as an experiment. As a business, though, not so much. While a core group of revolutionary futurists flocked to the Community Memory terminals, it remained a challenge to convince the wider community of the benefits of going online. As a sign

of the problems, Community Memory stopped charging a quarter to post content because *the organizers could not afford the coin counters*.

Gradually, the creators moved on to other projects, and both money and enthusiasm ran out. Community Memory shut down in 1992 (an original terminal is on display at the Computer History Museum in Mountain View, California). Felsenstein himself had grown disillusioned with the clunky hardware and set out to apply what he had learned to design better modems and connection technologies. He became a chief architect of the Osborne, the world’s first mass-produced portable computer.

Ironically, the world’s first online social network was never connected to the Internet. Community Memory was a Berkeley phenomenon. Just as the Berkeley experiment called it a day and closed up shop, the first Internet browser was released in 1990, and the first web page went live in 1991. They pointed the way for the next step in development of online social networks, on a path first pioneered by Felsenstein, Hardt, and their colleagues.

**David Kalat** is Director, Global Investigations + Strategic Intelligence at Berkeley Research Group. David is a computer forensic investigator and e-discovery project manager. Disclaimer for commentary: The views and opinions expressed in this article are those of the author and do not necessarily reflect the opinions, position, or policy of Berkeley Research Group, LLC or its other employees and affiliates.