

# Old Metaphors for New

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In January of this year, shortly after Apple introduced its redesigned iMac computer, Yale U computer scientist David Gelernter published an op-ed piece in the *New York Times* (Gelernter, 2002). In his article he dismissed the iMac's new shape (a flat screen floating at the end of an adjustable arm connected to a dome-shaped base) as welcome but more or less irrelevant. The problem, he said, is that Apple's new OS X operating system does not depart substantially from the well-worn "desktop" interface:

When it was unveiled in 1984, the Macintosh operating system caused a sensation. Nothing basic has changed since. (. . .) Today's files, folders and desktops are obsolete. Desks and file cabinets are furniture; computers are machines. The traditional "Still Life with Icons and Menus" is obsolete, too.

When Gelernter said that "new software requires a new metaphor," he seemed to share the frustration of every designer, artist, or storyteller who ever attempted to capture the richness of life and render it comprehensible in a two-dimensional plane. Apple borrowed the desktop metaphor from the Xerox Alto and, therefore, from a company whose mission revolved around office machines. The Macintosh made the metaphor part of pop culture, whereupon it was co-opted and industrialized by Microsoft Windows.

Certainly, we want our machines, particularly those we use to communicate and share information, to reflect the world as we perceive it to be (or wish it were). Gelernter claims that "Information hits us constantly; we need a dynamic display that shows us information as it happens."

It isn't as though designers and software makers aren't trying. The swooping, Gothic landscapes of gaming and action movies are now conventional and familiar, as is the relentless, jittery clutter of cable TV news and commercial webpages. Compared with the dual dangers of sensory assault and motion sickness, the homely desktop, with its file folders and trash cans, is a little easier to take, if a little banal.

But his remarks prompt a more important question: How do we make sense of the information around us, at least the parts that we care about and attend to? We do indeed experience information over time, and in every type of context. It takes many forms. We often create simplified representations or schematics of information in the world, some of which work well enough that they become part of our taken-for-granted visual and cultural vocabulary. They can be difficult to give up. The front page layout of a newspaper, or a streaming stock ticker, are two examples; the desktop metaphor is another.

In Gelernter's case, he says, "I want one unified information stream—the electronic story of my life." His company makes this type of interface, which he claims is a better universal metaphor for information: "The stream flows. It looks like a receding parade of electronic documents. . . the future flows into the present, which flows into the past. By glancing at the stream, I glance at my life."

In recent years anyone who has attended a computer graphics conference such as the Association for Computing Machinery's SIGGRAPH meetings, or visited a contemporary art gallery featuring works that use new media technologies, has seen similar efforts. New interface designs mimic not only flowing streams, but topographic hills and valleys, "data mountains," and flythroughs of cityscapes, living rooms, interstellar space, or abstract 3-D color fields. Some systems hang text in space like multidimensional crossword puzzles or array images as though stuck to virtual refrigerator doors. There have been scores, if not hundreds, of attempts by software designers and firms like Gelernter's to invent new information "spaces," "structures," or "languages." However, so far no single metaphor has emerged that looks likely to be any more universal than the familiar desktop.

Certainly, other metaphors might be more appealing, intuitive, meaningful, or useful in different situations, and Gelernter is surely right when he says, "we need more choices." However, to use a couple of other well-worn phrases, there may be no magic bullet that hits everyone, no golden key that unlocks some mysterious, pent-up demand—and sells lots of new computers in the process. Perhaps people should be able to choose which metaphors—that is, which interfaces—best suit their lives and ways of seeing the world, including Gelernter's infinitely "receding parade of electronic documents."

Instead of urging software developers to invent the next grand, unifying metaphor of information and computing systems, however, we might consider all the diverse and idiosyncratic stuff that we already have sitting boxed away and unusable in whatever passes for our personal and professional "electronic archives." Computer systems have been in homes and workplaces for long enough that many people have stashes of digital information—old files, drives, disks, tapes, software programs, and so on—that are 5, 10, even 20 years old. Most of it, though, is already irretrievable because of incompatible changes in operating systems, application programs, and computing hardware that were meant to push users into continuous cycles of buying new technology. (For more on "dead media," see my earlier

column in the January 2000 issue of the *ICA Newsletter*.) Put differently, given current systems, Gelernter can have the story of his life, provided his timeline is only about 18 months long.

**W**hat innovative designer or firm will create the plug-in “legacy tools” that will let us move back and forth among today’s networked new media environments (plural) and the “look and feel” of a beloved old Osborne, Apple IIe, DEC Rainbow, IBM-PC or Mac SE/30, as easily as we move among websites? That would let us play Pong at the somnolent pace of the 1970s, see old Lotus 1-2-3 spreadsheets exactly the way they looked to us in the 1980s, or mail those scrawly drawings exactly as the kids made them in the original MacPaint?

Ironically, digital photography may be the technology that finally drives software designers to deal with the digital archaeology problem. Users will discover that because digital images are far less stable than film and photographic paper, they risk losing the family photo history as their photo files—and the software that displays them—become obsolete. Users will demand computing systems that preserve the old as well as advance the new.

To use Apple’s slogan, the latest software lets users “rip, mix, and burn” photographs, drawings, video, and music, but it doesn’t solve the legacy problem or eliminate the formidable barrier of physically translating, porting, or dubbing our personal archives through generations of formats and storage media, when and if they can be moved at all. Software should give us the same easy ability to browse through our electronic heritage that we have when we open a box full of our collected memorabilia—old family pictures, letters, clippings, files, and mementos. There’s another metaphor to think about.

#### References

Gelernter, D. (2002). Bold new look, tired old metaphor. *New York Times*, January 11, A23.

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For the media to find their proper place in this scheme of things, they must win the respect, trust, and support of civil society. If that happens, they will be able to mobilize it, if necessary, in their own support and defense. This has already happened a number of times. In the Czech Republic, 100,000 people marched to protest one party’s attempt to gain control of public television. In Georgia, citizens took to the street to demand that an enterprising television station, Rustavi-2, remain on the air after government officials tried to shut it down. In Moldova, too, street demonstrations protested against state television mimicking the pro-Russian policy of the government.

**M**ore is required than occasional street demonstrations, however. The media must contribute to the development and strengthening of civil society and win its support and commitment. When that happens, politicians will know that the electorate sets high store by the independence of the media, and that attempts to tamper with it will cost them votes and possibly chances of election victory.

That, of course, is not the end of the story. Some post-Communist countries are described as “emerging markets.” Many more, however, are still merely “latent” markets, incapable of sustaining a developed media system. This is a heaven-sent opportunity for politicians and businessmen who can all the more easily buy the services of media organizations and journalists. Scruples and journalistic ethics are often quickly forgotten when people are faced with a choice between independence leading to bankruptcy for media outlets and poverty for their staff, and well-paid service to a political party or oligarch.

In post-Communist countries the media enjoyed the most freedom in the interim period, when the dying old system was no longer able to control them and the emerging new system was not yet able to do so. As the new system took shape, it developed its own system of controls. Now, a new push for media autonomy and independence is required. It will come with the maturation of democracy and market economy. Will it be enough? Certainly not, but who ever said the media should be freer in Central and Eastern Europe than they are in Western countries?