The Revenge of the Typewriter

When a fast-moving technological advance brings the next new thing, the older technology left in the dust is usually assumed to be history. Yet surprisingly often, reports Scigliano, a Seattle-based science writer, superseded technologies survive, and even thrive, "because they fill real needs that their more sophisticated successors don't."

Take dot-matrix printers. Their heyday was in the 1980s, before ink-jet and laser printers came along. Most personal computer users today probably assume that the clickety dot-matrix machines are heard no more. But in fact they're alive and well, operating under a new, jazzier name ("impact printing") and functioning as an industrial tool. "For accounting firms, banks, and pharmacies with reams of data to print out (and for whom speed, reliability, and economy actually count for more than looks), dot-matrix—er, *impact*—printing still works," writes Scigliano. "Small wonder: Today's impact rigs can print up to 2,000 lines a minute, over 500,000 pages a month, for less than a fifth of a cent per page—versus 1 cent per page and up for ink-jet and laser printers."

Pagers, too, live on. "The teens who made these devices essential fashion accessories in the early '90s graduated to cell phones, and even RadioShack stopped selling them," says Scigliano. "But pager sales rose in 2002, contrary to industry expectations." Hospitals, for example, use them heavily because cell phone signals can interfere with diagnostic equipment. Pagers are also cheaper than cell phones, provide more extensive coverage, and don't jam up as often in emergencies.

Scigliano points to eight other technologies that have outlived the reports of their death—from old-fashioned, sweep-hand watches (sales dramatically up in recent years) to typewriters (434,000 word processors and electronic typewriters sold in 2002, not to mention the classic manual machines still available from Olympia and Olivetti). Even mainframe computers, dismissed as expensive dinosaurs when the PC arrived, are still used by banks and other institutions for large-scale data processing. The behemoths offer speed, security, and reliability, Scigliano notes. So in the new millennium, IBM's mainframe sales are once again on the rise.

EXCERPT

Against Consensus

I regard consensus science as an extremely pernicious development that ought to be stopped cold in its tracks. Historically, the claim of consensus has been the first refuge of scoundrels; it is a way to avoid debate by claiming that the matter is already settled. Whenever you hear the consensus of scientists agrees on something or other, reach for your wallet, because you're being had.

Let's be clear: The work of science has nothing whatever to do with consensus. Consensus is the business of politics. Science, on the contrary, requires only one investigator who happens to be right, which means that he or she has results that are verifiable by reference to the real world. In science consensus is irrelevant. What is relevant is reproducible results. The greatest scientists in history are great precisely because they broke with the consensus.

There is no such thing as consensus science. If it's consensus, it isn't science. If it's science, it isn't consensus. Period.

—Michael Crichton, author of *The Andromeda Strain* and other novels, in a lecture at the California Institute of Technology, at *www.crichton-official.com/speeches/speeches_quote04.html*