Rich Lewis

OPINION

Opinion: Digging up that digital data

By Rich Lewis, Sentinel Columnist, February 18, 2010

Last updated: Thursday, February 18, 2010 3:32 PM EST

The geeks call it "the click of death."

It's the sound you hear when you turn on your computer and, instead of booting into your operating system and on to that cute background picture of your dog in a baseball cap, the machine goes tick-tick-tick, emits a few frantic beeps and concludes by showing you the dreaded "blue screen of death."

What it means is that your hard drive has died, taking with it all your documents, e-mails, pictures and music. The ticking is the drive's delicate read-head banging against a metal "stop" as it skids around trying to figure out where the data went.

This very bad thing happened to me a few weeks ago. I fired up our old Dell desktop that we use as a second computer, got the click of death and immediately did what anybody would do. I panicked.

I wasn't even sure what was on that hard drive but knew that it must have included some irreplaceable treasure, some meaningful piece of work or personal history. I had made some backups now and then, but couldn't remember how thoroughly or recently. A year ago? Two years ago?

Anyway, I overhauled the machine, installed a new hard drive, re-installed the operating system and soon had it up and running again. But I kept staring sadly at the dead drive, regretting the loss of things I couldn't even name.

So I got out my tools and took it apart, piece by piece. The case, the chips, the cables, the magnets, the addled read-head. And under all that and on top of the elegant motor was this beautiful, gleaming platter — 3-1/2-inches across, with a silvered surface as smooth and shiny as fresh Olympic ice. It was like a piece of art.

And all my stuff was on there. It was all right in my hands, but I couldn't see it or feel it. It might as well have moved to another planet, another dimension of being. It was very frustrating and even unsettling.

Well, as so often happens, shortly after that I came across a recent article on this same subject by Alasdair Wilkins in the science and technology blog, io9.com (http://tinyurl.com/ybolln4).

Titled "Imagining the Fate of Data after the Apocalypse," it was based on a January article in New Scientist magazine by Tom Simonite and Michael LePage titled "Digital doomsday: the end of knowledge" (http://tinyurl.com/y94d9ev).

The question raised in both articles was whether all of the world's massive stores of data could be retrieved by a future generation if some catastrophe — you know, a sort of global "click of death" — wiped out our present civilization.

"The world's estimated stored data runs well into the petabytes (that's millions of gigabytes), and in order to contain so much data information technology has taken a turn for the short-lived and unstable," Wilkins writes. "We still have readable clay tablets from millennia ago and legible paper from centuries in the past, but their modern equivalents could not reasonably hope to survive that long."

The articles then detail the fragility of our systems for storing digital data — hard drives, flash drives, CDs, DVDs, magnetic tape and so on. You can't count on any of them being reliable for more than a decade or so.

And then, of course, you need devices that can "play" these things, and the methods of encoding and reading the information stored on them often change, and sometimes the proper playback equipment goes obsolete. Think about 8-track tape, Betamax or HD-DVD.

In so many ways, so much of our knowledge, history and experience — personal and universal — is being reduced to unimagineably tiny and exquisitely delicate 1s and 0s, vulnerable to rapid aging, dust, bugs, humidity, temperature, stray magnetism or even a careless bump from a clumsy hand.

Sure, nothing lasts forever — but sometimes I wonder if we shouldn't be putting some stuff on stone tablets instead of encoding it as subatomic toroids.

And interestingly enough, even some scientists recognize the imprudence of trusting our collective wisdom to magnetic impulses. A group of them have organized The Rosetta Project, named for the famous stone that unlocked the mysteries of ancient Egyptian hieroglyphics. Calling it their "first exploration into very long-term archiving," they have produced a proto-type called The Rosetta Disk (http://rosettaproject.org/disk/concept/) — "a three-inch diameter nickel disk with nearly 14,000 pages of information microscopically etched onto its surface."

Not 1s and 0s — but actual words in eight major world languages that can be read with a simple magnifying glass, included with the disk.

"It isn't a great stretch to imagine that the language information on this Disk could provide the key to the (re)discovery of valuable society-sustaining knowledge far into the future," the project directors write.

That would be pretty amusing — to see our fanciest scientific tricks trumped by the simple carving of words into a hard surface.

I certainly would have found it a lot more useful than watching my reflection dance across the surface of a platter that, though enchantingly pretty, could no longer speak to me.

Rich Lewis' e-mail address is rlcolumn@comcast.net.

©2010, The Sentinel, a division of Lee Enterprises. Do not copy or redistribute.

Article: Opinion: Digging up that digital data

Author: By Rich Lewis, Sentinel Columnist, February 18, 2010

URL: www.cumberlink.com/articles/2010/02/18/opinion/columns/rich lewis/doc4b7d34e90f5ba695209493.prt