

Digital Caveman

Crash course for the tragically unhip

By Keith Clark

The concept of the wheel is fairly simple to understand, no? It involves principles that we come to innately understand shortly after our time on this earth begins.

But do you think that collectively, mankind was, well, *overwhelmed* upon the invention of the wheel? Is it possible the masses were a bit mind-boggled by the science of this then-new and startling technology, one that seems like such child-play to us today?

There are times, I suspect, that

many of us are possibly overwhelmed by what's going on with the digital age. Certainly we've come to appreciate our computers (at least for the most part!). But do we really understand them?

I'm a digital "tweener" – the modern era of computers and the myriad influence of digital technology really didn't come to the fore until I was through college, where I had learned to be quite comfortable doing word-work on an IBM Selectric. (That's a

typewriter, youngsters – do a "Google" of the term to find out more.)

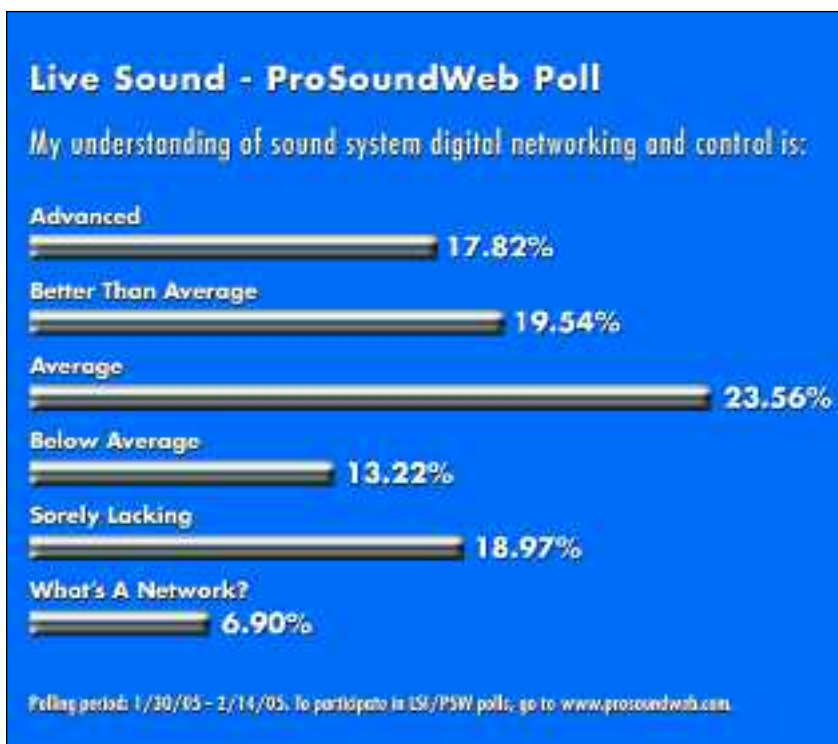
Oh how things changed. My first real job was to serve as a news editor for a fledgling "electronic publishing" service. The concept, kind of a fore-runner to the Internet, was to provide up-to-date text news (and shopping and banking and whatever services) to subscribers via their television sets linked to "magic black boxes." That idea didn't go over so well, but I did learn to manipulate a crude "computer" to edit and post the news.

A couple of years later, I was tasked with writing one of the first commercial articles on the wonders of something called a "facsimile" (fax) machine. While I understand the technology, it still blows my mind that you can put a piece of paper into one of these machines hooked to a phone line and see a duplicate copy of your paper come out of a similar machine anywhere else in the world.

So I learned and gained a bit more of a comfort zone with time. (A wheel can roll by itself, but it can also be affixed to an axle...)

In the late 1980s, I found myself sitting across from Dr. Clay Barclay, who blueprinted the Crown IQ System concept. Dr. Barclay wished me to translate his digital dementia into something that audio professionals would not only understand, but also warm up to. (Huh? How do you spell "node" again?)

A few years later, the same process repeated itself, as I began my "rapid



hair-loss objective" in trying to figure out Peavey MediaMatrix. And again, somehow translate its essential elements into more readily consumable verbiage for the marketplace.

Then came the first "total networking" attempt in pro audio. Many of you will remember this as "MediaLink," by a company called Lone Wolf. A lot of manufacturers bought into the concept and worked to make their gear "MediaLink compatible" – but the whole thing never quite got off the ground.

It should be pointed out that Lone Wolf is an actual person of U.S. history. A Native American (Indian) chief of the Kiowa tribe, Lone Wolf led raids in 1874 after his son had been killed by whites, but he was defeated and with a number of followers was deported to Florida, where he remained in military confinement for three years and then died shortly after his release.

Perhaps there is something in a name...

So here I am now, joined by you, and maybe some of us are somewhat

overwhelmed in trying to understand not just digital technology, but how it applies to sound reinforcement and where it all might be going.

What follows on the next several pages is information provided by several very smart people working in our industry, talking about digital technology in audio, how it works, what it can do, what the future may hold, and so on.

This is invaluable information, and I can't encourage you strongly enough to spend some time reading it (and re-reading if necessary). Those of the "digitally hip" variety will be able to discern what's new, easily understand the concepts and how they apply, and we hate them for it. (Just kidding!)

But for the rest who might be "digitally impaired" (overwhelmed), I have found a simple approach to work wonders in sorting things out as I read, think, re-read, rinse, repeat.

"Digital transport" means the moving of data and audio up and down a pipe. This pipe is usually Ethernet (CAT-5, et al), but is sometimes fiber optic or co-axial.

Any analog signal type that is to be transported in the digital real must also be converted to digital ("digitized").

"Networking" is the ability to link (via transport) to a device (or devices) and transfer data and/or tell it/them what to do via computer.

The catch-all term for telling devices what to do is "control." (And keeping an eye on devices while they are on a network is called "monitoring.")

"Network protocol" is the "language" that unites devices on the same digital transport path, assuming the devices are compatible with the protocol. Note, however, that each device still has its own control/monitoring parameters.

Understanding a little bit of lingo can take you a long way. On the bright side, a few years from now much of this will seem fairly simple.

Right now, all some of us know for sure is that if there's a flat spot on a wheel, it doesn't roll nearly as well. ■

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