

# Rick's Place

## Notes, Thoughts, and Random Musings on the Online Experience

by Rick Hein, AMIS web master

We are stuck with technology when what we really want is just stuff that works. How do you recognize something that is still technology? A good clue is if it comes with a manual.

Douglas Adams

*The Salmon of Doubt*

The above statement is absolutely true in the new worlds of educational technology and personal technology. Apple and Sony are battling it out for the role of provider of the 'digital hub' which links all of your personal communication and entertainment devices. Now you can easily communicate between your mobile phone, computer, .mp3 player, and PDA. What is coming on the horizon is the addition of your video recorder, television, stereo, central heating, microwave oven, and refrigerator to this list. Yes, the day is coming when you will place a package in the refrigerator and it will scan the sell-by date and enter the food in the refrigerator's data base. You will then be able to use your mobile phone or PDA to 'query' the 'fridge and cupboards to get a list of its contents and pass that to the computer which will search the Internet, find an appropriate recipe, transfer it to the printer or the liquid crystal display on the refrigerator's door and start the oven heating. Sound far fetched? Think back to to the very early 1980s .

Your computer, if you could afford one, measured its processor speed - the data processing rate inside the central processing unit - in kilohertz. (*Technical note - just like audio waves, processor speeds are measured in cycles per second. One cycle per second = one Hertz. One kilohertz = 1,000 Hertz*) The 0s and 1s marching through its memory moved in groups of eight. The computer in your life may have been connected to the television as the cost of a special monitor would have been prohibitive. Video games were made by Atari, Magnavox, and Tandy or Radio Shack and largely consisted of variations on "Pong" and "Breakout". Mind you, not everyone had one of these, and they also connected to the television. So if Mom wanted to watch *Days of Our Lives*, there was no chance to play "Duck Hunt".

In the realms of music reproduction, reel-to-reel tapes were still king. The compact cassette, introduced by Philips, was making inroads in home entertainment. Transistors were finally replacing the vacuum tube (valve for our English friends) in consumer goods using the new multiple transistors invented by Western Electric and Bell Labs for the communications industry, just as TouchTone™ was steadily replacing rotary dialling.

The first personal computers were just appearing, and in the late 1970s they were sold as kits. \$1200 bought you some circuit boards, bags of transistors, resistors, switches, and the instructions for assembling your Altair computer. The Apple II was initially sold to hobbyists as a kit and was eventually marketed as a pre-assembled complete home computer including a built in "real" keyboard with matching monitor, disk drives, printer and game controllers available. It included a programming language AppleSoft Basic developed by their supplier specifically for their computer. The hippie and the geek engineer from California hired a group of wild, college dropouts who had banded together in the desert to drive fast cars, play basketball, and write programming languages for these new computers. Why the Arizona desert? It was close to the Altair factory. Why did the fledgling Apple Computers turn to them? They were specialists who had a reputation for writing fast, small, elegant computer code. Who were these dropouts? Yes, you guessed it - Bill Gates and Paul Allen and their colleagues who now number amongst the world's richest people - MicroSoft. The move to the Redmond, Washington came later.

Now our processors are measured in megahertz (*mega = million*) or the low gigahertz (*giga = billion*), the data marches in 64 member groups, monitors made of liquid crystals are not only on portable computers but home computers. We think nothing of families with more than one computer, and we (*almost*) all rely on and take for granted the onetime rarities of electronic mail, mobile telephones, telefax, digital cameras, compact disks, and wireless networking. Neither science nor George Lucas could have predicted the number of lasers, microwave transmitters, and microchips lurking in the average household today.

I was reminded of the distance we have travelled in utilising technology in the music education environment. At this month's AMIS International Honor Jazz Band Festival, the concert was recorded on a mini disc, invented by Sony in 1992, transferred to our school computer lab (the second oldest lab in our school) where each computer is capable of creating audio and data compact disks, and within twenty-four hours I had read the manuals, hooked it all up, edited and authored the 'rough draft' compact disk. Where was the recording studio? The engineer? The booth? The technology used in recording the superb sounding big band and combos was entrusted to a student who already at the age of eighteen has a 'back catalog' of recordings he has recorded for jazz, rock, and reggae bands, as well as a variety of classical soloists and ensembles. He'll be doing the final copy - he doesn't need a manual.

As all of the devices start talking to each other, we will have to hope that the programmers keep simplifying our interactions with the 'machines'. The computers of today are more and more approachable through the use of everyday metaphors; we now are comfortable with seeing files as a little picture we can drag to the picture of a folder. We put folders into folders and move that folder to pictures of disks. What we see on the screen is what we get, and we are reluctant to go backwards and speak in "machine" talk. Our students may sympathize but they will never understand our confusion - they are native speakers of technology; while we are all working as hard as we can in TSL - Technology as a Second Language - class.

Send your homework to

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