

Let Me Through! I'm a Computer Scientist!

Whil Hentzen

Dinners have taken a rather interesting turn lately.

Aliens and custom applications

While I was in Seattle just before the end of the year, I had the opportunity to sup with John Alden of Tycho Software. Among the thousands of threads visited during a five hour dinner was that of CGI. But this time, "CGI" referenced Computer Generated Imaging. Much of the footage of the aliens in Sigourney Weaver's second "come back from the dead" film (she did it in Ghostbusters, if your memory has faded), *Alien Resurrection*, was generated by computer.

One of the most difficult things to do with computers and software is to artificially generate an accurate and believable representation of the human form and face. We supposed that it was because we're very familiar with the subject, and thus, easily recognize even the smallest errors. There's also a specific part of the brain that is dedicated to the identification of the human form. With aliens, however, we can't detect errors, because we have a rather small set of prior knowledge, and we're missing a brain part that specifically deals with the identification of aliens. In other words, we can't tell what's supposed to be.

Think about it. This realization has huge implications for designing new software for customers, wouldn't you say? "You've never seen this application before? Well, it's *supposed* to look like that!"

Déjà vu, but not all over again

A friend of mine is nearing completion of a double major (computer science and cognitive physiology) at Carnegie-Mellon, still carrying a 4.0 grade point. <sigh> (Wait until he discovers girls.) We've meandered over the ground of "what the future will be like" a number of times.

The discussion usually goes something like this: "Well, Dave, imagine what it's going to be like when I'm 100 and you're 82. 'Remember the good old days? Remember that PC you got for your senior year? A whopping 64MB of RAM! Wow, those were the days...' Our grandkids are going to fall on their butts laughing at us old codgers."

And here's another line some 60 years hence: "Remember back then, why, they actually had to *Cut People Open* in order to do surgery! We were such Barbarians! Our grandkids are going to go 'No, grandpa, tell us another story – but make this one believable!' Kinda scary, wouldn't you say, Dave?"

We spent the rest of dinner hypothesizing about the future, and decided we didn't have a clue. Dave is still aghast at how little we know about the brain and the human learning mechanisms. But one thing I'm looking forward to is when you can take a credit card to the doctor. No, not to pay. So that they can read your vital signs that were stored on this PCMCIA card that has been storing information about what's been going on inside your body. Sure beats the alternative of having to poke and prod you, ask a hundred annoying questions, and still end up making random guesses. Sound farfetched? Some people have pacemakers that work this way now. The rest of your life signs can't be that far away.

Unfortunately, this is yet another sign of Big Brother. "So, Whil, you had two Milky Way bars last Tuesday, and you stayed up past midnight one day in November. I thought you agreed that you'd take better care of yourself. Tsk, tsk – time for your punishment. Nurse! Bring out the cattle prods!"

Let me through!

One of his professors, who carries an IQ of 300 or so, has a half-dozen patents in the AI field, and can tie his shoes just by concentrating really hard, has a stated lifetime goal of "Before I die, I want to be in a situation where I can say, 'Let me through! I'm a Computer Scientist!'" Dave and I spent the better part of dinner trying to image a scenario where this would happen. We couldn't come up with anything good. Your suggestions are welcome. (And the top five suggestions that make it into a future column will receive a brand spankin' new "Let me through!" t-shirt.)

Next month – an in-depth look at here-to-fore secret features of Tahoe, the next version of Visual FoxPro.
Don't miss it!