Things are not always what they seem. This is a lesson which we all have learned, so it’s hardly worth belaboring. In the universe of electrons swirling in silicon and fluxes in magnetic media, however, this lesson is worth examining again because for the educated layman, technology is simultaneously wonderful and occult. (It seems our senses no longer work for us unless we have Double E degrees or are computer scientists.) We can see the benefit and even the application...if we are clever. But, it is very easy to not really know what’s going on. Because I am a veteran of many years working in that twilight zone between technology and people, I am particularly interested in the notion of what is real and what is not ... and how one tells the difference.......  

Several years ago, I was heavily involved with running a large training establishment. The curriculum included many subjects taught the dry, traditional way, at great expense and with sure but predictably slow progress. Foreign Language was one of the areas in the curriculum and, for the most part, was being taught the same way as when I studied Latin so many years ago. One day, while looking through a language textbook, I found myself drifting off, losing my concentration when suddenly, my attention was snapped back into focus by a large white rabbit which bounded across the page, scurried across the desk, and disappeared down a burrow which opened in the wall.  

Ah ... Yes! We arrive at this evening’s metaphor. Technology certainly is a Wonderland ... as magical and at times as absurd as anything Sinclair Lewis could have imagined ... Did I say, "Sinclair Lewis?"...Did anyone notice? ... But of course, I meant Lewis Carroll. Or did I? ... Actually, we are talking about Charles Lutwidge Dodgson who really wrote *Alice in Wonderland*. Coincidentally, the man was a brilliant, left-handed mathematician, logician and puzzler—the quintessential cryptologist.  

The White Rabbit is a very powerful image for us all. He is nervous ... He is impatient ... He is driven by a sense of lost time .... It was his impatient flight that drew Alice to follow him. So, we entered Wonderland chasing our own White Rabbit, following a mandate to find faster, better ways to expand our
knowledge of new and complex things. To put dull texts "without pictures or conversations" behind us. To plummet headlong into chaotic, risky ventures to capture the essence of video living color, sight and sound..... and to do so under a pressing deadline.

In a rush, we fell into the tunnel to Wonderland. Where amazing things happen but where reality is hard for the layman to discern. We are greeted by long hallways with doors leading, we are sure, to lovely gardens. We have snatched glimpses and they seem within our reach. But, how do we unlock the door? Is money the key? But, getting money is fraught with red-tape and Catch-22s. (Or is it Catches-22?) So we enter the Eat Me/Drink Me paradoxical world of elusive funds. One moment, we are so small we can't reach the key. The next, we are too big; we can't get through the door. Then suddenly, we are DROWNING ... There's a pool of money ... acquired by frustrated tears from a principal, dean, director, or fund site of your choice. And we has BEST be able to swim! You see, the White Rabbit is agitated; he is late and has no patience. So, when we get the funds, we are obliged to spend them quickly and with purpose.

These magic bottles marked "DRINK ME," and the little petits fours with "EAT ME" so seductively iced on top are a constant feature of Wonderland. There is always the threat of catastrophic results. I am sure that Alice wished she could always depend on the results of her size-altering ingestions, but she could not. Formal Victorian rules are of little use in Wonderland. Following them usually results in chaos.

In the technology Wonderland, you invariably run into some creature who intimidates you with what appears to be "intellect." Large blue caterpillars who make you feel stupid MAY have superior knowledge ... or may not. They may intrigue you to the point that you put up with their rude proposals. You find yourself being asked 'Just who are you?'...and yet, if you want to know who HE is, he asks you "Why?" Creatures of this sort have at least one lesson to teach, and that is: if you can remain calm, forebear the intimidating hype and see through the bluff, you may in fact find some useful knowledge—like which side of the mushroom to bite.

"Why is a raven like a writing desk?" Ah, a riddle! Finally, something Alice can relate to—and has a chance of solving. "I believe I can guess that," she says. But, after the riddle is posed, time gets all tangled up by the Mad Hatter and the March Hare. They invite you for tea, scurry wildly about (perhaps, trying to set their demo up?), and you end up never getting any tea. (Government employees can't accept meals from vendors, anyway.) Besides, the
Mad Hatter really doesn't know the answer to the riddle! Later, you learn (from another source, naturally) that a "raven is like a writing desk because it produces a few notes -- ALL VERY FLAT." But even though this IS the answer, it isn't particularly useful.

The Doormouse at the tea party has particular significance to me. He tells of three sisters who live in a treacle well (that's molasses to us!). A great deal of word play centers on "drawing" molasses from the well and, for that matter, drawing "all manner of things that begin with an 'M'." Well ... I myself begin with an 'M' and I am one of three sisters, and anyone who has been in my office would know that you are not drawn from a well. If you are one of three sisters and begin with 'M,' you ride yourself out on a bicycle. Suffice it to say, I have great faith in initiative and motion toward an objective. That's Motion with a capital 'M.'

In the technological Wonderland, there is always a Cheshire Cat. (I wonder if "CHESHIRE" would make as good an acronym as "CALICO." They are both cats and they both begin with 'C.' Let's see ... Computers in Higher Education...... No, I think "CALICO" is better after all.) The Cheshire Cat is a canny fellow. He's always grinning, but he knows his way around Wonderland. The problem is, he always disappears just when you think you need him most. On the other hand, when the Queen of Hearts wants to cut off his head, he is clever enough to make only his head visible. So he survives to be useful, but only when the mood strikes him. This creature brings to mind people like programmers, for instance, who are always grinning, are difficult to understand, who know their way around their bizarre environment, and who are only of use to linguists when the mood strikes them.

Speaking of cutting off heads, no extended metaphor in Wonderland would be complete without homage to her Royal Majesty,.....the terrible ... demanding ... Queen of Hearts. We all have heard her banshee cry when some powerful task master like herself discovers that the deliverables aren't forthcoming. One thing for all of us to keep in mind is that often a forceful leader, and even a not so forceful one, has the subtlety to recognize when her roses have been painted red ... and may be resourceful enough to use flamingoes and hedgehogs to play croquet. Remember, the Red Queen is definitely not someone to trifle with. Who knows what would happen if an honest gardener merely delivered what she wanted -- a GENUINE ... RED ... ROSE. It's something to think about.

I hope that each of you can relate Alice's Adventures in Wonderland to our Adventures in Technology since we founded CALICO several years ago. We
all have wrestled in our own ways with the promises of computers and the elusive realities of their application .... Oh! .... I almost forgot! But I bet no one would ever have noticed...There is a very obscure character in Wonderland whom one seldom remembers to mention. He is quick, agile, pragmatic, resourceful, and usually turns up to get Alice out of a jam. He is Young Bill the Lizard, a devoted friend of the White Rabbit. How could we forget him????? There is also another character, Father William. Now, I am not sure what Lewis Carroll was trying to tell us, but whatever Bill or William did must have been important because like Alice, they had real names. On the other hand, they were very low profile like our own Bill or DR. William, the research linguist, programmer, project manager and consultant.

Anyway, to get back to the point, technology is a Wonderland and it is in our interest to understand it ... to embrace it ... to grasp and hold it...to wrestle with it and bend it to our will. Can you fashion an image to capture the wonder of childhood, to arrest its fancy so it learns to jabber in foreign tongues? ... Can you? ... Can you reach out to touch ... feel ... and move a hologram projected in space before you? Can you use the hologram to explain the intricacies of a concept to a different people in a different tongue? ... Can you? ... Can you harness technology to pierce the ether to communicate with the Sun? ... What is real in Wonderland? What is logical? What is absurd?

In Lewis Carroll’s day, human flight was a fantasy. Yet, less than 70 years later, four real wars had been fought by men in aircraft and, in peace, man had stepped onto the moon. "Curioser and Curioser!" In 1970, there was no real-time interaction with computers. People used punchcards; floppy discs were just notions. The personal computer with 8K memory was not yet realized and megabyte "Laptops," color graphics, videodiscs, voice synthesizer chips, and so on were dream5 perhaps, but not yet in focus. In 1970, such dreams would have been absurd to all but the visionary. Yet, they are boringly rational now ... fantasy and reality separated by only a brief moment in time.

Do YOU know what is real and what is not? Will neural nets eliminate programming as we know it? Will thousands of synchronous processors unravel the machine translation enigma? Will we teachers adapt our precious "toys" to give learners practical, pragmatic applications? Will this mushroom make me smaller?

We are faced with a Mad Hatter’s tea party, full of the real and the non-real juxtaposed. Voice processing by computer is both real and not. SSI, IBM, Kurzweil, and others claim high reliability in voice entry systems, but not for the
speech of the real world, the fast, connected, speaker-independent, noisy speech. Full machine translation is not real ... Machine Assisted Translation is ... at least to a certain degree. And the echoing claim that language can be taught faster using a particular translation support system some say is smoke and mirrors. "Who painted my roses red?"

Several years ago, there was no CALICO. There was no one to tell us about mushrooms and the little bottles that say, "DRINK ME." The whole point of CALICO was, and is, to get technologists with humanists, computers with teachers, users with producers, government with universities, people with people toward the goal of learning what is real and what is not. And we have learned ... that videodiscs can be used to teach language ... that a single desktop computer can produce camera-ready texts in Chinese, Bengali and Arabic ... that satellites can help us capture the currency of television in the language lab ... and that classrooms in Moscow, Tokyo, Seoul and Shanghai can be merged with those in Hawaii, Hartford and Silver Spring. So many riddles have been posed and so many have been solved. CALICO has had resounding success in getting people together to explore and discover what is and what is not and to learn whether things are what they seem. The full extent of CALICO's success is hard to measure—somewhat like the contribution of Young Bill the Lizard in Wonderland. So many links have been forged behind the scenes and so much progress has been made that we take it all for granted and accept it as reality.

There is a great sense of pride in having been involved in CALICO from the very beginning. And I do know just how far CALICO has come. But, like the White Rabbit, I am agitated, impatient because I also know how far there is to go. Here, I should present my customary challenge, but I think I will spare you such motherly cautions ... even though the y would be especially appropriate tonight. This speech is the fifth one which I have had the profound pleasure to deliver. You don't know how much I really mean that. I am, in fact, quite reluctant to speak in public, but I have always felt comfortable addressing this wonderfully creative group. For like foreign languages, CALICO is important and dear to me.

With the next few sentences, I will end this, my last CALICO banquet speech. Dr. Otto has always been gracious enough to let me have the limelight after dinner and I have loved every single minute of it. The after-dinner speech is considered part of the dessert, you know. It goes well with coffee ... if you're lucky. But all of you who have contributed to the strength and progress of
CALICO have given us a feast. I sincerely believe that you will continue your truth seeking in Wonderland ... and will succeed in opening new vista far beyond your wildest dreams. Somewhere back there behind the mirror, I will be watching. But for now, it is time that I logged off and let someone else at the keyboard.

Thank you and good night!

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