How Intelligent are Smart” Devices—Really?

Lately, I’ve been hearing a lot about &quotsmart&quot electronics and smart phones in particular.

Much of the information I got from the CES and now much of what I’m now getting from the 3GSM conference is eluding to the fact that smartphones are the next happening item in the hand held communicator business. Really?

One good thing about being in any business or industry for a long time is that you get to watch it evolve &#151 especially since the dawn of the technological revolution back in the ‘70s. If you’re really lucky, you’re there for the big bang and get to watch it go from a fledgling with wet wings though adolescence and into maturity.

While I wasn’t around to see the beginnings of wireless in general, I was around to see the birth of cellular. I was also not around at the infancy of computers; I got into the digital industry around the time of DOS 1.1 and when 80286s and 5 MB (yes MB not GB) hard drives were considered more than one would ever need (talk about a reality check). But both of these industries were young enough for me to get my arms around.

So what I’m getting at is that I’ve been around long enough to understand a bit about the evolutionary process of the electronics industry (I also remember those wonderful discrete tube (barely) and transistor audio components. Still have one of those discrete Pioneer SX1250s in my basement that weighs 80+ pounds). But, I digress back to smart devices.

The term &quotsmart,&quot at this juncture, is more marketing than sustenance. I have a home automation system that has cameras, an alarm console and light/appliance controls that X-10 calls &quotsmart.&quot Well if I had to give this an IQ rating it’d be about 40. The alarms false, or fail, the light/appliance modules are intermittent and the camera selection is random.

I also have a crackberry. It has been labeled a smartphone by some. What makes it smart? I still have to manually dial, select functions and manually deal with its many components (memos, calendar, etc.). If it really were smart, why does the calendar pop up to the current day when I really want to add a meeting at IMS in June? And not just after the first time...but it’s the same sequence every time. Does it automatically answer if my Bluetooth&reg is active? No. Does it know who I want to call next? No. It isn’t even smart enough to ask me what I want to do or intuitively offer a logical next step based upon a few previous steps. Really.

Does adding PDA-like features, as well as digital still cameras, music players and global positioning systems, make a device smart? Realistically, I’d call them multi-functional, but stop short of calling them smart.

A while back there was a lot of activity around Artificial Intelligence (AI) and how it would revolutionize the future generations of computers, phones, automation and any number of technologies. We have seen some implementations but it’s not nearly as ubiquitous as we though it was going to be by now. Turns out it’s a bit more complex than we thought, requires a bit more resources than we thought and is a bit more expensive than we thought (and fuzzy logic has turned out to be a bit too fuzzy so far).

The biggest roadblock to the development of AI, and, subsequently, &quotreal&quot smart devices has been the massive amounts of data that must be stored to even come close to approximating what a brain is capable of doing. Storing all this data is expensive, in both real estate (memory) and support functions (power and overhead) In clear-cut, black and white repetitive cases, it’s a bit simpler. But most “real-life” decisions are rarely identical or use the same set of conditions each time. To approximate the human capability to be intuitive is quite challenging, as we have found out.

My favorite colloquialism revolves around the Texas accent. I did some computer work with the oil companies in the early ‘80s. I was in a conversation with one of these quintessential gentlemen in the business. The sentence that caught my ear was when he said, &quotI’m going to sell all this oil to...” (don’t quite remember the rest &#151 must be running out of storage myself). Anyway, I asked him to repeat the phrase but this time put &quotoil&quot in front of &quotall&quot&#151 something like, &quotI’m going to sell oil of this all to...&quot For the life of me, after three or four repeats, I still couldn’t tell the difference between his pronunciation of &quotoil&quot and &quotall.&quot We had a great laugh over that.

Little did I know how significant and poignant such an ambiguous little moment would turn out to be 20 or so years later. And how exemplary a representation it turns out to be as well.

Now, of late, there have been some promising developments in areas like quantum mechanics and single-electron semiconductors. This is still on the drawing board and in the lab &#151 yet it’s an intriguing peek at what the next order of magnitude is capable of. And frankly, this is what it will take to begin to realize what I consider &quotsmart&quot devices.
However, not to be called a complete curmudgeon, there is some benefit to the marketeering of the concept of smart devices. There is value in prepping the end-user by conditioning them to be comfortable with the word smart. Since most consumers are befuddled by the complexity of today’s devices, when devices really become smart (and transparent), the end-user will find both comfort and value.

Somewhere in the not-too-distant future we’ll turn the corner and electronic devices will become not only smart, but intuitive and unintrusive. We won’t need instruction manuals or have constrains (like GSM vs. CDMA). And, where all of this is going is that wireless will have to be the common denominator because it is the only platform for ubiquitous mobility.

Wireless...what a wonderful industry to be in.

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