



Netwatch

By Jim Carroll

Your guide to business & accounting on the Internet

Minds of their own

One day soon, you will realize you're not using your credit card very often. Instead, you're using your cellphone or BlackBerry to link to the grocery store cash machine, which will automatically synchronize payment after prompting you to

confirm your PIN number. Your car will have an implanted payment chip linked to an in-dash fingerprint that orders a direct wireless payment at the gas pumps.

Payment technology is rapidly migrating from pieces of plastic to the high-tech world; the evidence is already there with the various payment fobs being used

and promoted by gas retailers. Technology-makers are about to jump onto the bandwagon in a big way; some estimates suggest upwards of one-half of current credit-card payments could migrate to contactless technologies within the next few years.

Yet this trend is but a small part of a much larger one under way — one I've come to

call hyperconnectivity. I recently spoke to a group of CEOs of some of the world's largest sporting goods manufacturers and challenged them to think 20 years down the road. I suggested they imagine a baseball bat — would it still be a simple, shaped piece of wood? The bat of the future, I suggested, would have intelligence and connectivity embedded into it. The young uber-wired kids of 2025 could use that technology to analyze their swing. A backyard virtual sensor net could even feed the details to a virtual catcher 20 miles away, allowing them to carry on a dynamic, if somewhat impersonal, game of virtual baseball. Far-fetched? Not at all. Scary? Definitely. The trend toward such embedded intelligence is extremely real. And, as I said to the CEOs, the future "isn't bad, it's just different."

The fact is, we are rapidly entering a world in which everything is beginning to plug into everything else and as this happens, the devices that surround us are taking on a different shape, form and reality. Things could possibly get out of hand. I might get up one morning and step on the scale, only to discover it has sent an e-mail

to my fridge suggesting the door remain closed for the day.

Despite such potential technological misgivings, intelligence is already being embedded around us. A construction equipment manufacturer I know has placed intelligence into the hydraulic, mechanical

and diagnostic components of its undercarriage equipment. It can now instantly and remotely monitor customer equipment and predict with a high degree of accuracy when breakdowns might occur. The company is rapidly evolving its business model, so that it sells the customer a service-based piece of equipment with guaranteed uptime. By doing so, it can garner a higher price and thereby survive some of the cost commoditization that is occurring in the global marketplace.

Then there are the electronic highway cones, whereby a truck places a group of six cones on the road; one, known as the shepherd, links to the overhead global GIS satellite system and wheels itself into place. Then, it guides its flock of five to their places. Meanwhile, the truck places more flocks farther up the highway. One can imagine the havoc as drivers crane their necks to watch the scurrying cones; on the other hand, they'll be able to reduce a highway's closing time to a matter of minutes.

That's an example of the benefit that comes from hyperconnectivity — a world in which the fundamental role, capabilities and functions of everything that surrounds us undergoes a fundamental and transformational shift.

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