
So trendy, so convenient -- so dangerous to our privacy

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The fish in Barcelona is excellent -- but I am not so crazy about the chips.

You may wonder why a technology law professor from the University of Ottawa is in Spain sampling chips. But it is not what you think. Despite my deep commitment to patatas bravas, the chips I am referring to are low carb. In fact, they're made mostly of glass.

I am spending this year in Spain as a visiting scholar, directing a large privacy project, and thinking as often as I can about European attitudes towards identification technologies.

The summer course I am teaching at the University of Barcelona -- Building Better Humans? -- has my students thinking about the law and policy implications of artificial intelligence, robotics, neuroscience and nanotechnology.

Our objective is to study the social dimensions of cyborgs (cybernetic organisms); to contemplate the legal and ethical implications of the continually blurring line between human and machine.

Last week, the class looked at human microchip implantation. On Friday, I took my motley crew of 35 students from the United States, the Caribbean and Europe to the Baja Beach Club in Barcelona's Vila Olimpica to sample their chips.

Why did I choose the Baja Beach Club rather than one of the more typical Catalan haunts? The answer, in a word: VIPchips.

When club director Conrad Chase was looking for a unique identifier for members of his new VIP lounge, he wasn't satisfied with the look of plastic ID cards. He considered jewelry, tattoos and body piercings but decided to take it one step further.

Remembering a controversial news item about an American family who volunteered to be subjects for an FDA-approved experiment involving microchip implantation, Chase eventually contacted the U.S.-based company testing the chip.

The result was the VIPchip, a 12-mm-x-2-mm radio frequency device (picture a large grain of rice)

implanted under the skin near the triceps. There is not a whole lot of technology behind it; a "read-only" chip which, once implanted, is a static storage site for a relatively small bit of information.

The chip is activated by an external scanning device. When radio frequency signals are emitted from the scanner through the skin, the chip sends a radio frequency signal in response, transmitting a unique identification number.

It is, in essence, a glorified sub-dermal ID card; a human barcode.

But it's more than that. By networking the scanner with a computer and a database, the device is used not only to authenticate identity but also as a payment system.

It keeps track of purchases and reconciles them with a VIP's prepaid account. Park your surfboards and come-right-on-in from the beach! No need for wallets. No need for cash, credit cards or ID. When your arm interfaces with the scanner, it "knows who you are" and "tells you what your credit balance is."

As one of my students put it: "Now that's one kewl body piercing!" Many of my students agreed. They see the chip as original. They see it as convenient. And they see it as the future.

They're not the only ones. During his demo, Chase told us that he is "in negotiations" with a large financial institution that is considering using his club to pilot a new application that would turn the chip into a credit card.

According to some of the materials he handed out, "the objective of this technology is to bring an ID system to a global level that would destroy the need to carry ID documents and credit cards."

Although he doesn't believe that cash will become immediately obsolete, Chase predicted that body-scan microchip payment systems will eventually supplant cash and card-based systems, that our ability to make anonymous payments will become a thing of the past.

Human barcodes? Global ID systems? The death of

anonymity? All because one clever nightclub marketer wanted to take body piercing to a new level?

Okay. Maybe it's not that dire. After all, the Baja scanner can read chips only from a distance of a few centimetres. But Baja's chip provider and similar companies have more powerful applications.

Just a couple of weeks ago, the attorney-general of Mexico announced that he and 160 members of his staff have been implanted with chips made by the same company. Those chips not only control access to a new crime database, it is reported that they can also trace the whereabouts of Mexico's top lawyer in the event that he is kidnapped.

There have already been several proposals to use chips as tracking devices and as the basis for a national (read: international) identification system. Recognizing potential obstacles posed by constitutional law, some experts have suggested that national identification systems ought to commence on a voluntary basis.

But as other experts have noted, the idea of a voluntary program is preliminary. Its aim is to desensitize people. Most agree that, to be effective, such systems would eventually become mandatory.

There is no space here to enter into a substantive debate about the potential deleterious social implications of chip-based tracking devices or payment systems, nor is there room to discuss the many valuable uses of implantable chips in the medical sciences and other sectors.

But what I learned at the Baja Beach Club is that in the agenda there is not merely fish and chips. Though the decisions being made by the club's director and its patrons could be the first steps into a dangerous sea, neither have considered the potential implications.

Their willingness to implant into their bodies a radio emitting computer chip as though it was just another body piercing reminded me of something former Sun Microsystems guru Bill Joy once warned us about, that trouble sometimes lurks "in our attitude toward the new -- in our bias toward instant familiarity and unquestioning acceptance."

Being convenient, cool or original are obviously not compelling reasons to embrace such powerful technology. And yet this rather obvious point has been rendered invisible by a compelling new technology, accustomed, as we have become, to living in an age of almost routine scientific and technological breakthroughs.

If that message hadn't come across to my students before our strange field trip, I hope it occurred to them afterwards.

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