

## And the crystal ball says...

Multifactor biometrics that allow hands-free ATM transactions.  
Ultrapersonalized marketing material indistinguishable from a personally written letter. Mind reading headsets connected to computer cursors.

These blue-sky innovations are seriously predicted to be at least on the table within five years, if not completely mainstream.

At this time of the year lots of people and organizations express their predictions of new technology trends on the horizon. It's fun to see what the more far-sighted of us are looking at. Whether they come to pass, or not, is left for the rest of us to determine.

On the other hand, the whole concept of innovation is serious business. Innovation, in fact, is seen as a trend itself, not only for the gee-whiz factor but for revenue, competitive differentiation, cost containment, and more.

But first, back to the fun stuff.

IBM is dead serious about what it calls "IBM 5 in 5," that is, five innovations it says will change our lives within five years. In short, they are:

- People power—Anything that moves or produces heat (that would include you and me) will be exploited to generate electricity, such as walking, bicycling, running water through pipes, and computer-generated heat.

- No more passwords—ATMs, mobile phones, and tablets will be configured to identify faces, recognize voice patterns, and check retinas instantaneously to allow access to accounts.

- Mind reading—Really. IBM scientists are working on ways to link brains to devices so that, just by thinking about it, you can move your cursor. It's actually not that far out or far off. Mattel has been selling its brainwave-sensing Mindflex game for a couple of years. (Fellow ababj.com blogger Dan Fisher wrote about it last April.)

- No more digital divide—IBM notes that there are 7 billion people in the world, and in five years there will be 5.6 billion mobile devices sold.

- Priority mail—Personalization technology will link product and service offers to the tastes, budget, location, and even appointment calendars of individual people.

It's not just IBM that's talking like this. Gartner has a report that says, in part, "Context, gesture, the live state of everyday objects, inherent identity (untagged, image-recognition-based), human emotional state, and even brain response to stimuli are all new types of information that are at the radar's edge or are starting to be brought into play within businesses."

To be sure, Gartner's report focuses more closely on the radar's center. It takes the very big picture that we are now in the second half of an 80-year information age, the difference being that now the primary business value will come from the exploitation of technology, rather than simply the installation of technology.

"In the second half of the age, as technology becomes ubiquitous, consumerized, cheaper, and more equally available to all, the focus for differentiation moves to exploitation of the technology and to the information it processes," says Mark Raskino, vice-president and Gartner fellow. "It is already noticeable that the great fortunes of the second half of the age are being made by companies like Google and Facebook, which are not traditional makers of technology. In this period, the majority of companies that enjoy competitive advantage will gain it from a differential ability to see and exploit the opportunities of new kinds of information."

To this latter point, PricewaterhouseCoopers polled 226 CEOs and CFOs of big companies and found that three fourths of their businesses have made innovation a priority. Almost half of these companies expect their innovations will have a significant impact on the way they do business over the next one to three years.

"Private companies see innovation as a driver of growth on a variety of fronts," says Ken Esch, a partner at PwC. "Increased revenue, profitability, and market share are key near-term objectives, but innovation leaders are looking beyond that. They're considering ways to propel their businesses into the future so that they stay relevant for the long term—not just several years from now but a decade or more down the line. These leading-edge innovators are looking to develop novel products for as-yet-uncreated markets, along with entirely new ways of delivering them—an endeavor requiring revamped business models and farsighted corporate strategy."

All this is very interesting, but how does it relate specifically to banks? Well, other folks have weighed in on that.

For starters, there's the cloud. Here's Unisys's prediction, and they are sticking to it for the second year in a row. "Over the past two years cloud computing has moved into the mainstream of IT investment decisions," says Colin Lacey, vice-president. "Business decision makers are embracing both private and public cloud computing models. They now see the cloud as a vital way to obtain IT services that enable them to provide solutions for clients and deliver competitive products to market quickly and cost-efficiently."

EMV (the Europay, MasterCard, Visa chip card standard), joined at the hip by NFC (near-field communication), also figures into the 2012 prediction line-up. Says Mercator Advisory Group: "If Visa's view of the world comes to pass, merchants, acquirers, and issuers will be embarking on the most complex update to their payments infrastructure in 20 years. The EMV card security standard, designed to eliminate counterfeit cards, is now an issue for U. S. organizations. At the same time, interest in smartphone mobile payments based on NFC is ramping up. Both technology waves will come to U.S. shores simultaneously, and entities that accept, process, route, or assume the risk for payments must prepare."

Javelin Strategy and Research also sees the EMV/NFC wave coming. "It's decision time for issuers and merchants as to whether and how they will support EMV or modified magnetic stripe technology," says Javelin's Phil Blank.

Other bank-related trends are in the mix, Javelin notes. These include:

- Customers choosing between fees or convenience—“In 2012, consumers who object to bank fees will be forced to put a personal price tag on convenience,” says Mark Schwanhausser, researcher.

- QR codes can engage customers—“The checkerboard patches on ads that are read by smart phones allow consumers to “instantly respond to a financial institution’s call to action and transact directly” while the institutions can assess the effectiveness of their marketing efforts in real time,” says Mary Monahan, executive vice-president.

- Geolocation—“Mobile consumers can be alerted right away to nearby ATMs, branches, and preferred retailer locations while being offered localized rewards and coupons, and even enabling fourth-factor authentication, says Beth Robertson, researcher.

Maybe mind reading is not so far out of the question after all.

Sources used in this article include:

[Gartner Says Second Half of the Information Age to Focus on Exploitation of Technology and the Information It Processes](#)

[IBM Reveals Five Innovations That Will Change Our Lives within Five Years](#)

[Javelin Announces the Top Ten Trends for 2012](#)

[US Private Companies Prioritizing Innovation As Growth Engine](#)

[Cloud Remains Top IT Priority for 2012, Unisys Poll Shows](#)

## About the Author

John Ginovsky is contributing editor of ABA Banking Journal and editor of the publication's TechTopics e-newsletter.

For more than two decades he has written about the commercial banking industry. In particular, he's specialized in the technological side of banking and how it relates to the actual business of banking. He previously was senior editor for Community Banker magazine (which merged with ABA Banking Journal) and was a staff writer for ABA's Bankers News.