

**IDEAS FROM THE GROUND UP TO THE CLOUDS ...
AND BACK DOWN TO EARTH**

EXCERPT FROM NEW BOOK

**SUPERCORP:
HOW VANGUARD COMPANIES CREATE INNOVATION, PROFITS,
GROWTH, AND SOCIAL GOOD**

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Applications expanded after that. Working with several non-governmental organizations (NGOs), IBM developed an adult version of the user interface for its adult literacy and workforce training programs. In 2005, IBM began work on a Web-based version, Reading Companion (<http://www.readingcompanion.org>), phasing out the CD. Reading Companion incorporates both the children's and adults' voice models and interfaces. The Web-based version means that users have immediate access to the latest versions with all updates whenever they log on, they have immediate access to new books that are added, they receive online training, the system remembers users and what they've read, and the system collects information for teachers. The site features an online "book builder" that makes it very easy to develop new e-books to post on the site. Older kids have written for younger students, creating schoolwide literacy activities.

Reading Companion is free for schools and NGOs. While this is an example of a society-serving innovation, the benefits to IBM are also invaluable. The IBM researchers and software group working on the literacy tool are the same people who develop technology for the commercial side of the business. The impetus to innovate in new technology to meet the demanding needs of schools took voice recognition capabilities to a whole new level, resulting in numerous business applications with better products coming from a research team more skilled in innovation.

ideas from the ground up to the clouds . . . and back down to earth

I have shown that vanguard companies attempt to shorten the loop between society and solutions, but they also face the issue of deploying solutions widely—the diffusion of innovations. Close connections from the outset between developers and users are one clear facilitator. IBM researchers develop prototypes and improve on them through frequent communication with users or even location in customer facilities, as happened in the Philadelphia schools. P&G brings customers into the development process to ensure faster and more enthusiastic product adoption, as evidenced with Always Básico in Brazil.

A second way to facilitate diffusion is to pick a demonstration site carefully and offer proof of concept by showing the innovation in use. For example, Omron designed industrial laundry safety devices for a Texas company and then demonstrated them at an industrial laundry convention (which fortunately happened to be in Dallas) to create the market. A first demonstration site for mobile banking or voice recognition technology becomes the place to bring future users to educate them about what's possible. Otherwise, a great idea and a perfect solution can languish because no one understands it well enough or sees its virtues clearly enough to want to make all the other changes necessary to put a single innovation in place.

To help customers envision innovations and thus decrease lag time between technology innovation and customer orders, IBM Innovation Centers demonstrate the potential for innovation to provide new solutions. These strategically located showrooms offer futuristic prototypes for the major industries that IBM serves. I saw exciting retail space planning tools using virtual worlds and avatars at the new Innovation Center on the first floor of the China Technology Lab in suburban Beijing. An Innovation Center in Barcelona, Spain, focuses on banks of the future, and another in Brazil features banking solutions, including payment through cell phones (one piece of ICI's mobile banking system) and a digital camera system that manages large queues so that a bank could attend to a customer in fifteen minutes, as required by a new Brazilian banking law. This is, so far, pretty conventional marketing, targeted at business customers.

What IBM adds to the mix comes from its societal contributions, offering demonstrations of innovations that are potentially more persuasive and have greater impact than the business applications in the Innovation Centers. IBM's public-facing projects, including Reinventing Education and World Community Grid (WCG), are also showcases for the power of IBM innovations, demonstrating the latest solutions applied to big, vexing problems that broad groups of people care about. Reinventing Education shows how social issues can stimulate innovation. WCG goes further in showing off the power of technology fresh from the lab, giving it away for good causes not as an afterthought but even before there are commercial customers. Society first, then the marketplace.

With the launch of WorldCommunityGrid.org in November 2004, IBM made powerful grid technology available to address the most critical health and environmental issues facing society. It is a powerful demonstration of what is now known as cloud computing. This was a launch on a fast track, starting almost when Stanley Litow, vice president of corporate citizenship, who keeps in close communication with IBM research labs, learned of a breakthrough at Watson Labs. Grid computing links distributed computers in a network as powerful as a massive supercomputer. Litow thought that this technology could best be demonstrated by doing something really big. He went to CEO Sam Palmisano and proposed using the technology immediately in a societal application. He believed it would be more powerful for customers than a commercial application and would have the added benefit of engaging hundreds of thousands of IBMers and business partners—another win-win-win-win. (Litow's understanding of the close connection between society and technology innovation is one reason his group reported for three years to the executive vice president for technology and innovation.)

The vision was for IBMers, along with people in other organizations who joined with IBM in the nonprofit venture, to donate unused time when their PCs were on but idle. The unused power would aggregate to create the equivalent of a supercomputer that could be donated, in turn, to researchers trying to find a cure for AIDS or Alzheimer's—or any major scientific project requiring massive amounts of data processing. "You can change the world," the homepage proclaims, giving people simple instructions for downloading secure software to link to the grid. "Making a difference has never been easier!"

The real-world relationships are impressive. A distinguished scientific advisory board is represented by heads of major laboratories around the world, including leaders in Asia and Latin America. Linda Sanford, IBM's senior vice president of enterprise on demand transformation and IT, is also on the board. The first projects to use WCG were the Institute for Systems Biology's Human Proteome Folding project and Scripps Institute's Fighting AIDS at Home initiative. WCG has added a cancer research project sponsored by the New Jersey Cancer Institute and Rutgers and projects on drought predictions in Africa sponsored by the University of Cape Town in South Africa

and global hunger via a rice DNA project sponsored by the University of Washington.

Partners include 378 organizations ranging from an Italian oil company to U.S. public high schools; in March 2008, the latest partners to join were the Urban League of Greater North Dallas, Texas, and Amoeba Music. In Russia, where IBMer Tatiana Kipchatova promoted WCG use, the first two Russian organizations to join were a charity AIDS foundation and an Internet hosting company contributing the resources of its servers. IBM itself appears discreetly on the website, as the earliest partner and the sponsor donating hardware, software, and hosting services; a "Powered by IBM" logo appears on each page. IBM does not have to shout because its societal contributions, whether WCG, Reading Companion, or the rest, generate massive publicity, even more than routine product announcements.

This is a noteworthy way to move innovation into the world quickly with a big bang and huge potential for good. Perhaps the really big global projects could be accomplished only by a giant like IBM, but I think that the opportunities for impact are all around us, if serving society is put at the heart of an enterprise.

investing the values dividend

THERE IS AN OLD INNOVATION adage: When the climate is right, a thousand flowers can bloom. From the bougainvilleas in Brazil to the cherry blossoms in Japan, vanguard companies add new growth to classic innovation wisdom. They show that values and social purpose can produce more innovation enablers and suppress more innovation stiflers. When social purpose is at the forefront, five advantages accrue.

• *A bigger idea pool: a wider search for broader ideas with bigger potential.*

People search more broadly, see more opportunities, and generate more ideas if they are encouraged to think about the world and dream beyond their own individual function. If they look closely at society not just as a market abstraction but as a collection of fellow humans with needs worthy of attention, they see that there is always room for improvement, that "better" is always a moving