



Technology-Driven Change Is Inevitable

Are we in universal agreement that this is the dawn of a new era in mortgage banking? Do we agree that superior and efficient mortgage banking derives inevitably from technological innovation?

These notions hearken to a technology-centered vision of the industry's future. At times, there is a sense of the inevitable being carried on the wings of technological change. It might even seem that as new technology spontaneously and inexorably appears, bankers need only read the trends and position themselves to profit from the tsunami of good fortune.

When talking with mortgage technology leaders about specific kinds of technology applications, one gets the feeling that the inevitable has transformed into economic predetermination.

Indeed, there has been a great deal of new technology introduced to the mortgage industry over the last decade. The flow of new ideas has produced quite a bit for the industry and for individual lenders to absorb.

Just think about the breakthrough technologies that have been commercialized and put into production in a relatively short time: the Internet, Web portals, Web services, software as a service (SaaS), automated underwriting, automated valuation models (AVMs), risk-management models, electronic pricing, rules-based workflow management, document imaging and document management, electronic signatures, extensible markup language (XML) and more.

In putting this list together, I came to think that change has come in a constant rain of new-technology introduction. That led me to ask, "How will lenders adapt to a world of technology that largely is run by engineers?"

"It may come to a point when it is necessary to go back and humanize an automated process," says Andrew Dubinsky, chief executive officer of Encomia, Houston. Dubinsky believes that "the incorporation of IM [instant messaging], mail, e-

mail, phone and other mediums of communication will make a significant impact" on how workers and consumers interact with new technology tools.

For his part, Lester Dominick, founder and chief executive officer of Mortgage-Flex Systems Inc., Jacksonville, Florida, thinks that technology will enable lenders to build a strong relationship with borrowers. "Lenders and their partners will be better able to cross-sell their products and services," he says. New forms of technology will be needed.

Brian Sauk, vice president of engineering for MindBox™, Greenbrae, California, thinks that he and MindBox can transform the ties between lender and borrower in an even more fundamental way. He views the real possibility for the "development of a suite of software tools that enables the transformation of the industry from [the] simple automation of traditional loan products to one where deals are synthesized for borrowers according to the marketplace."

Such profound changes will require a fundamental reconstruction of the industry's data-document infrastructures in order to make them compatible with lenders' organization of work.

Tides of change

We surveyed a panel of technology innovators (see sidebar "Tech Thought Leaders") about how technology might change the mortgage industry. We specifically asked: "What do you think will be the most profound change technology will bring to the industry in the next five years?"

The responses painted a picture of high-efficiency workflows. Technology being introduced will help stimulate the reorganization of working relationships and the time it takes to finish a job,

according to these innovators. Their comments can be organized into three categories of impact:

- Convergence: Sectors that originally operated independently are growing together;
- Collaboration: Allowing different parties to a loan to work on the same task simultaneously; and
- Simplification: Realigning and compressing the lending cycle.

Sig Anderman, president and chairman of Ellie Mae Inc., Dublin, California, predicts that "In the next five years, we can expect the time from the application to closing of a mortgage loan to shrink from 45 days to 45 hours. We'll be eliminating all paper and redundancies from the process, thereby slashing the cost of origination. We're on track for major changes."

For many of the panelists, electronic mortgages underlay the future streamlining of the mortgage process. Other than Anderman's predictions, however, no other panelist offered a forecast as to the rate of industry change. Good guesses at the rate of change help lenders and vendors invest in these technologies when the time is right and to know when a competitive move is essential.

Encomia's Dubinsky says, "[T]he mortgage industry is beginning to look in the direction of being able to adopt a full-scale eMortgage." These institutions are beginning to look for quality, secure eMortgage technology, he adds.

Industry convergence

"The [eMortgage] technology is definitely there," points out Bill Kelvie, chief executive officer of Overture Technologies, Bethesda, Maryland. The technology is ready "if you can call up all the needed parts of the process as services in a true service-oriented architecture," he says.

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Kelvie is referring to prerequisites to a lender roll-out of eMortgage. There needs to be an informational convergence among the services necessary to complete a loan and safeguards for operational and regulatory compliance.

Convergence takes place at different levels within the industry. Convergence occurs in infrastructures, in end-user hardware and in computing services. The process of coming together connects two or more existing—but previously distinct—markets.

Think in terms of title insurance, fraud detection, document certification and so forth. The driving force is usually the development of one, or the integration of various technologies; of enabling infrastructures; and end-user devices or services. Another important source of market convergence is the change in product features resulting from new technologies (product convergence).

Convergence depends on the ability of lenders' technologies to recognize and bridge time, space and form. The industry's infrastructure may not be up to the task of supporting eMortgage.

"Older systems that have hard-coded programming are now crippling lenders' abilities to effectuate enterprisewide change, establish efficient workflow automation change and enable ease of integration and communication with disparate systems and third-party service providers," says John Le, chairman and chief executive officer of Portellus Inc., Irvine, California.

There is a generational difference that makes a big difference. According to Le, "Portellus believes that a clear paradigm divide has formed between the older, more established mortgage technology vendors with long client lists but antiquated, less-flexible technology; and younger vendors with more flexible, next-generation technology but smaller—yet growing—client lists."

Carmine Cacciavillani, chief executive officer of Palisades Technology Partners, Englewood Cliffs, New Jersey, agrees. He sees convergence coming with the "advent of more flexible Internet technologies," and

envisions "a comprehensive end-to-end origination system, capable of scaling to thousands of concurrent users without sacrificing a quality user experience."

MORTECH has taken note that the industry exhibits an uneven interest in the eMortgage. The infrastructure and technology obstructions to eMortgage result in an industry fragmented in its sense of urgency for change.

MORTECH forecasted that the majority of lenders would not be ready for eMortgage until 2010. The delay is due to the 50 percent-plus lenders that have no current plan to implement eMortgage technology. Vendors clearly see the value of the eMortgage, but it appears as though they

will have to bring along the techno-apostates.

There is an abundance of new ideas in which to invest those limited technology dollars.

Collaborating on the next wave: The on-demand mortgage

The next wave of change will be driven by technology that can orchestrate the many players involved in the origination of a mortgage to act as though they are a unified team.

Dain Ehring, chief executive officer of Dorado Corporation, San Mateo, California, and Rob Carpenter, Dorado's chief information officer, see the urgency of bringing together the parties to a mortgage. They foresee a quickening of the industry's movement toward horizontal and vertical integration.

Ehring advises quick responses: "With a flood of investment companies and large banks trying to coordinate transactions in the mortgage market, the industry will have to move quickly toward technology that vertically integrates processing and underwriting functions, and links parties together who provide securitization, insurance and investment directly to the mortgage point of sale," he says.

Looking to the future, Ehring and Carpenter see the push for digital or citation rights (an approach for controlling distribution of intellectual property). Well-managed rights will allow many companies to work on the same record at the same time. Privacy and data integrity will be maintained. Over the Internet, reliable rights

management and enforcement are key developments that will speed the mortgage process and help reduce costs for both lenders and borrowers.

Kelvie foresees the time when collaboration and collaborative technology "will accurately deliver this complex instrument [mortgage] in a dramatically shortened time frame—24 hours versus four to seven weeks. This process will depend heavily on the Internet and on the availability of services that will run automatically on a 24/7 basis. This next level of capability might be called the 'on-demand mortgage.'"

Kelvie sees a wealth of benefits flowing to all parties to the on-demand mortgage. The borrower discovers the lowest-cost source of debt and funding for other important events, such as paying for college. Mortgage originators and investors will source funds more accurately and confidentially. Lenders will deliver a "bundled closing" that packages myriad services and fees at a guaranteed price. The process, he says, will be far more transparent and cost-effective for consumers.

Technology will engender wholesale fundamental changes in how credit markets are accessed. "Marrying each prospective borrower with an investor, whether local or international, will create the most highly optimized credit market in the world," Kelvie predicts.

Reality check

There is an abundance of new ideas in which to invest those limited technology dollars. It takes time to translate innovation into proven processes. Pressured by the dual challenges of budget and time, management teams tend to focus on the risk of major change and overlook the truly innovative.

Indeed, there may be a wide chasm separating the ambitiousness of technology vendors and the pragmatism of non-technology business executives.

According to our MORTECH surveys, senior business executives earmark a measured amount of funds for new technologies. The vast majority of a typical lender's information technology (IT) budgets go to IT operations and maintenance.

Only an estimated 33 percent of budget is allocated to new systems and new technologies. For mortgage lenders

as a whole, we project that about \$800 million is spent to acquire truly “novel” technologies.

Lenders always will have to balance the needs of the present and the future. For something like eMortgage to become standard industry practice, promoters of

change will have to spend a fair amount of time and effort getting the attention of the industry’s silent majority.

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Tech Thought Leaders

For this column, I consulted a panel of mortgage industry technology veterans and thought leaders. The group consisted of the following familiar figures.

Sig Anderman is president and chief executive officer of Ellie Mae Inc., Dublin, California. He is a tireless entrepreneur, a gentleman farmer and a lawyer with a degree from New York University Law School.

Rob Carpenter is chief technology officer of Dorado Corporation, San Mateo, California. He managed the Java™ software systems architecture practice at Sun Microsystems Inc., Santa Clara, California. He earned a doctorate in systems architecture from the University of Southern California (USC) in Los Angeles.

Lester Dominick is president and founder of MortgageFlex Systems Inc., Jacksonville, Florida. Prior to forming MortgageFlex, he worked with Jacksonville-based Arthur Young & Co. as a certified public accountant (CPA). He attended Duke University undergraduate and also earned an MBA in management information systems and real estate finance from USC.

Andrew Dubinsky, president and chief executive officer, founded Encomia, Houston, in 1999. He has more than 10 years of experience in financial services management and technology, and is an active MISMO® participant. He earned a bachelor of science degree in computer information systems from the University of Texas at Arlington.

Dain Ehring is chief executive officer of Dorado Corporation. Previously he directed market development and strategic sales for Sun Microsystems’ JavaSoft division. He holds a master’s degree in space physics from the University of California, Los Angeles (UCLA).

John Le is chairman and chief executive officer of Portellus Inc., Irvine, California. He was the founder and chief executive officer of LoanTrader Inc., Irvine, California, a mortgage marketplace services company. He earned a bachelor of science degree in mathematics and actuarial science from UCLA.

Bill Kelvie is chief executive officer of Overture Technologies, Bethesda, Maryland. Previously, he was executive vice president and chief information officer of Fannie Mae. He serves on the board of Move Inc. (formerly Homestore.com), Westlake Village, California. Kelvie earned a master’s degree from Trinity College, Hartford, Connecticut.

Brian Sauk is vice president of engineering for MindBox™, Greenbrae, California, responsible for product development and support. He is an artificial intelligence (AI) expert, and earned both a bachelor of science degree in electrical engineering and mathematics, and a doctorate in electrical engineering from Carnegie Mellon University, Pittsburgh.