The Human Side of a Technology Launch

FAST, DAZZLING NEW TECHNOLOGY WON'T DO ANY GOOD
IF THE LAUNCH OVERLOOKS THE NEEDS OF THE WARM-BLOODED
EMPLOYEES THAT WILL BE USING IT.

IT SEEMED SO SIMPLE at the time. In the late 1980s, New England Metal Fabrication, like most companies in America, was feeling increasing pressure from offshore competition. The quickest way to cut costs and boost quality, the manufacturing firm's new president theorized, would be to automate key areas of the plant.

Employees were all for it. In fact, a survey showed that more than 50 percent were unhappy with the quality of their current equipment. They, along with the rest of employees, agreed that big changes were needed for the good of the company. Taking that as encouragement, managers installed state-of-the-art machinery-control systems and new technology to monitor quality, inventory, and work processes. They didn't think it was necessary to consult employees first.

With the plant newly automated, the company's bean counters sat back, smiled, and expected quality indicators to soar. Instead, they were astonished to find that scrap and down time *increased*. Worse, it took months for technicians, supervisors, and employees to take stabs at getting the new equipment operating correctly.

What happened there is likely to happen at your organization, if it fails to address the human side of a technology launch. Even when employees think technology is a good idea, many don't take to it naturally. To avoid implementing technology no one will use, it's important to involve employees in the technology's design and implementation. It's also crucial to ensure that HRD practices support the new way of doing things.

Eager adopters, prove-its, and resisters

Training is also important to a technology launch, but not as much as one might think.

"Training is probably the least important aspect of a technology launch," says Larry Rosen, a psychology professor and a partner of Byte Back Technology Consulting Service in Orange, California. "The activities leading up to training probably account for 80 percent of the success of new technology."

To get an idea of how people resist technology, ask your co-workers how many can program a VCR easily. Two or three might raise their hands. Most, however, will probably admit ignorance. According to Rosen, only about 10 to 15 percent of people are what he calls, "eager adopters"—people that like technology, expect it to have problems, and find solving those problems stimulating and fun. The rest are either "prove-its," who sit on the sidelines waiting for someone to show how technology will benefit them or out-and-out

By Shari Caudron

"resisters," who avoid technology as if it were the Ebola virus.

The reasons that employees resist technology are numerous:

▸ They don't understand why it's necessary.

▸ They don't think it will make their jobs easier.

▸ They're afraid to look stupid.

▸ They're worried about technology replacing them.

Resistance can also be due to generational differences. "I know several older lawyers that won't touch a computer because they see a keyboard and think it must be for secretarial work," says Robin Rokisky, president of Seaton Delta Consulting in Dover, Ohio. "They think any typing is beneath them."

Mostly, the reluctance to embrace new technology is due to a fear of change. "The majority of people have low tolerance for *any* change," says Paul Kazmierski, an industrial psychologist and professor at the Rochester Institute of Technology in Rochester, New York. "If employees don't understand the reason for change and they aren't involved in planning for it, they're going to resist it."

Resistance can take the form of obvious grumbling and complaints, or it can be more subtle, showing up as work slowdowns and absenteeism. Says Rokisky, "If you don't take into account 'people' needs during a technology launch, employees can't or won't do their jobs, turnover will increase, and productivity will decrease—all of which will lead to lost revenue."

Steady as you go

So, how do you go about transforming a resister or prove-it into an eager adopter? Slowly, methodically, deliberately, and democratically. From Day one, involve employees.

The first step in gaining employees' acceptance of new technology starts before it arrives. It starts with assessing their work flow to determine whether technical help is needed and what for. Asking employees what would make their jobs easier involves them in the decision to implement new technology, which increases their buy-in.

"I can't tell you how many times companies call us with a 'fait accompli' plan for technology, without ever asking employees for input," says Jerry Sarnot, president of I.M.A.G.E., a New York-based firm that helps companies install desktop publishing systems. "The goals for technology must be 'driven' by business realities that employees understand."

Upper management must also be on board, visibly supporting the change. Rosen tells this story:

"It's typical for upper-level managers to resist new technology. A company recently installed an e-mail system and encouraged employees to use it extensively. But everyone knew that the president's assistant printed his e-mail so he could handwrite responses, which the assistant would input and send [electronically]. That wasn't encouraging other employees [to use the new e-mail system]."

Next, it's important to assess potential users' comfort and experience with technology in general. That will help determine the necessary training and how much employees should be involved in the design effort. The more resistant employees are, the more they should be involved.

Says Rokisky, "Involve, don't tell." She recommends that employees participate in focus groups, questionnaires, suggestion systems, one-on-one meetings, and cross-functional teams. "If people become part of the design effort, they're much less resistant to the change."

"That was certainly true in our case," says Dave Ferguson, process control programmer for Blandin Paper Company in Grand Rapids, Minnesota. The company, which produces coated papers for magazines and catalogs, sought a way to reduce maintenance and scrap costs in the plant prep area. Employees, who weren't used to manufacturing technology, worked closely with programmers to design a control system that would automate the mixing of paper coatings and help troubleshoot problem areas.

Says Ferguson, "Sixty to 70 percent of the new system design came directly from employees' suggestions. Their involvement—particularly in the design of the interface—increased their acceptance greatly."

Getting employees involved in the design has other benefits. The Sentry-Group—a manufacturer of safes and security containers in Rochester, New York—recently installed a machine that fills safes with fireproof insulation automatically. Previously, the cement-like mixture was poured by hand. By designing the technology in-house using employee suggestions, the company saved six months and more than $250,000 over the time and cost of a similar machine installed by outside contractors at another plant.

Getting suggestions up-front is one thing; actual usability is another. It's crucial to ensure that employees test new technology during the development phase. Hartford, Connecticut-based Aetna Life & Casualty Insurance Company tests new applications and technology in a usability lab. It videotapes employees' reactions as they try out new technology, and the tapes are shared with system developers so that they can see where problems arise.

In another example, Warrior Insurance Company in Bedford Park, Illinois, beta-tested its new claims-processing system with the actual users. "We wanted employees to find the problems and tell us how to fix them," explains Sumit Roy, vice president of research and development.

Depending on the type of technology your organization seeks to implement, all employees may not have the opportunity to be involved in the design, planning, and testing. If that's the case, it's essential to communicate with them throughout the design stage.

"Development of our new claims-processing system took two-and-a-half years," says Roy. "Throughout, we kept employees informed about the features being built into the system and how the systems would make their jobs easier."

Influencers

Another way to keep employees informed and increase their buy-in during the design phase is to bring on board "influencer"—employees that can influence others' perceptions either directly or indirectly. The influencer can talk up the benefits of the new system, elaborate on the reasons for the change, and help alleviate others' discomfort.

When the Los Angeles Police Department prepared to install "hitman" technology—a system that collects,

stores, and analyzes data on thousands of murders—detective supervisors were enlisted to "put the word out to the troops."

Says Bill Parker, police officer in the robbery and homicide division, "Police officers are typically resistant to technology. They're not trained on computers, and they like getting together with other detectives to talk about a case." By enlisting the support of detective supervisors, the LAPD was able to show officers how the technology would help them solve cases more quickly, without eliminating the personal interaction that they value. The lesson: Train using the technology, keeping users' needs in mind.

Don't assume

It's important that employees be involved in planning the training. Don't presume to know what they need or how they want to be trained. Involve them by asking how often they would like to meet for training, when and where they'd like to meet, and what they need to know. Don't assume, for example, that everyone understands Microsoft Windows. "Use your basic training sense," advises Nancy Stermer, director of corporate communications and training for AT&T Systems Leasing in Bloomfield Hills, Michigan. "Know the needs of your audience."

Stermer, who has trained employees in new technology since the appearance of the first word processors in the late 1970s, says that with technology, it may be more effective to bring in outside trainers. "New technology tends to make people insecure," she says. Employees, particularly executives, don't want to look stupid or inept in front of co-workers or staff.

Regardless of who conducts the training, make sure that they use the actual technology. Don't fake it with handouts and overheads; that tends to make people more techno-phobic. At Blandin Paper, programmers knew that it was vital for employees to be able to practice on the new system before going live. So, they built in a simulator. Says Ferguson, "That way, employees could experiment realistically and make mistakes, without affecting the whole plant."

A word of caution: Don't compare new technology to an old system. "That's like asking people to compare something they know and love with something unknown and foreign," says Jane Graver Sandler, president of SOS Technology in Red Bank, New Jersey. "You automatically set yourself up for bad press."

What may be even more important than technical training is training in new procedures that the technology creates. After all, new technology can significantly change the way work is done. "Technology is usually a piece of a major change, not the change itself," says Rokisky.

Assuming you've done your homework, you will know how technology will affect specific jobs. As a training professional, you need to take a look at the new skills required by the changes. For example, accountants, who used to prepare spreadsheets, needed basic accounting and math skills. Now that computers do the spreadsheets, accountants are likely to focus on helping managers interpret financial data. Consequently, they require training in analytical and interpersonal skills.

Training in new technology should use real-life situations. Show accountants how to analyze and present actual financial figures for the current month. Show detectives how hitman technology will change the investigation process. Show plant workers how automated control systems will enable them to troubleshoot maintenance problems, and then train them how to do the maintenance.

In other words, don't conduct a single course until the new technology is

TECHNOLOGY LAUNCH COUNTDOWN

10. Assess employees' needs, attitudes, skills, and behaviors.

9. Help alleviate employees' technological discomfort.

8. Help develop employees' motivation to use new technology.

7. Involve employees in selecting new technology.

6. Increase employees' awareness of technology.

5. Pre-test the new technology.

4. Design the training.

3. Conduct the training.

2. Research the technology's use and enhance the system.

1. Obtain employees' feedback.

Blast off!

Adapted from material provided by Larry D. Rosen and Michelle M. Weil of Byte Back Technology Consultation Services, Orange, California.

tested and available. People forget what they don't use.

A phased rollout

Now, you're ready to roll out the new system. But despite your best efforts, some resistance remains. The best way to overcome it is through a phased rollout, in which employees get used to the new system one piece at a time.

Warrior Insurance launched its new claims-processing system by introducing employees to each function gradually as it was automated. For example, a typical claim begins with a loss report. As soon as the loss-report function was put online, employees started using it. Then, they began creating and sending electronic files to claims adjusters. Says Roy, "Employees got used to the new system one piece at a time, allowing for a very clean transition."

As new technology is rolled out, make sure ongoing training and support are available. Rokisky suggests creating user groups, in which employees that use the technology meet regularly to discuss common problems. She also recommends that companies "train by walking around" by having technical-support people readily available during the first few weeks of a rollout to answer employees' questions and help solve problems.

Don't forget HRD

If you grease the skids, employees should accept new technology more easily. But if their acceptance is to be long-lasting, your HRD systems must reflect the new ways people are working.

As employees develop new skills

and discard old ones, it's necessary to rewrite job descriptions so that the HRD department knows how to recruit in the future and how to evaluate and reward current employees.

Says Roy, "Now that our claims system is 99 percent installed, we've realized that our expectations of employees are changing. Because the work flow has changed, we have to change the standards by which we measure employees."

Should employees be paid more for using technology? Not if using technology is part of their job descriptions and their level of responsibility hasn't changed significantly.

Says Ferguson, "Here, employees' jobs have actually become easier—and cleaner. We didn't offer financial rewards because there are paybacks in using the technology."

Gregory Wolfe, plant superintendent at the Sentry Group, agrees that companies don't have to offer financial rewards for using technology; the rewards come naturally to employees that embrace it. "People actively involved in our technology effort increased their value to themselves and to the company. In fact, 30 percent of the technicians involved in the rollout have been promoted to areas of greater responsibility."

A change in job descriptions and skills has an impact on recruitment. A company that once might have needed to hire an accountant now needs to hire an accountant that is comfortable with technology and that can analyze and interpret data.

Overall, the aim is to make employees *want* the change and to provide the support for them to make changes easily. Then, they can benefit from it as soon as possible. Says Ferguson, "When we first announced we would be automating the control system, employees screamed, 'No, you can't do this to us.' Two weeks after the system was in, they were threatening us if we ever took it away. They're excited about the new technology and eager to suggest improvements. Now, we're holding them off with a stick." ∎

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