



Fear Factors

It has become appallingly obvious that our technology has exceeded our humanity.
—Albert Einstein

You arrive at work as usual and boot up your computer. After logging in, you receive a message that says, “Click here to receive a software update.” You barely understand how to operate the old software, so what do you do next? Call the help desk, unplug your computer and go home, or click the link and face your fear?

It seems like computers have completely taken over our lives in the past 20 years. But as much as some of us might try to avoid information technology (IT), computers have invaded our world of environment, health, and safety (EH&S) data management—and they’re here to stay. This month’s column takes a look at some of the factors that drive the fear of technology and offers suggestions on how to overcome them.

IS FEAR OF TECHNOLOGY ON THE RISE?

Fear of technology is nothing new. As far back as the 1830s, building workers in England feared the encroachment of machinery upon their crafts. Sawyers, brickmakers, and cabinetmakers felt the threat of technology, fearing their source of income would be eliminated. However, few technologies have spread as quickly, or become so widely used, as computers and the Internet. Once computers evolved from mainframes to

affordable, portable, and ubiquitous devices, some people began to worry that these machines would replace humans. Although computers have made tremendous strides in speed and capabilities since the 1980s, I don’t think that they will ever be able to replace certain human actions and functions.

The fear of technology now repeats itself in the 21st century, even as we take countless technologies (pagers, cell phones, PDAs, e-mail, Internet) for granted. A recent Frank Beacham essay, entitled “Coping in a High-Tech World” (www.beacham.com), notes that today’s fear of technology seems to be reaching epidemic proportions. People who fear computers often feel that technology robs them of control over their lives and livelihoods. In many ways this is true, as keeping up with the onslaught of new technology can be overwhelming. At the same time, people are pressured to “get with it” for fear of being left behind. In our industry, we are not only overwhelmed with EH&S requirements, but we also have to contend with technology to get our jobs done.

FEAR FACTORS

So, who is afraid? It’s not just end users who fear new technology. People at all levels of a corporation (users, managers, operations personnel) and in various disciplines (EH&S department, IT department, accounting) fear new technology. Human nature is to resist change, but the fear of technology often has a sound technical basis. Why are people afraid of new systems? Figure 1 classifies fears in terms of people, business process, and technology issues.

FACING YOUR FEARS

In 1999, Symbol Technologies, a manufacturer of handheld data entry devices in Holtsville, NY, carried out a case study in the United Kingdom on overcoming the fear of technology (www.symbol.com/uk/news). The study involved a major logistics infrastructure investment at Sainsbury's, a U.K. food retailer. While Sainsbury's understood the benefits of using new wireless terminals, the company also realized the need to overcome a major hurdle—user resistance caused by the fear of new technology, fear of redundancy, and of major changes to work practices.

The company found a way to introduce the new technology so that everyone involved was comfortable with the technology and the process. Sainsbury's discovered how the implementation of technology could bring out the best in people and provide opportunities for personal growth. According to a team leader, "From the day notices went up on the board asking for volunteers for the implementation team, everything about this project was handled from the shop floor. Who would have thought that a company would send a warehouseman to the USA to see the system in use? I've been with Sainsbury's for 23 years and this was something completely new in my experience."

Getting people to accept any new technology requires significant planning and hard work. It also requires champions throughout the organization. If you are considering the rollout of new technology, here are some useful strategies to help you face your (or your organization's) fears.

Don't Let Technology Be an Afterthought

Use technology as a tool, not as an afterthought. Just as you consider EH&S issues whenever conceptualizing a new construction project, you should consider IT issues when

contemplating an EH&S (or any business) undertaking. Involve the IT and management information systems (MIS) staff early and often. And remember to budget for technology.

Fit Technology to Your Business

Fit technology to your business needs; don't use a jackhammer where a small hammer and chisel will do. Envision the end result, and beyond, building flexibility and room for growth into the design. Understand that hardware and software have a life cycle and that other emerging technologies will replace current technologies at some point. Also, be prepared to fit your business to technology—new technology will change and often improve your business processes.

Keep in Mind Gains from Technology

In a February 2002 presentation at the World Congress on IT, David Murray, managing director of the Australian Commonwealth Bank, challenged Microsoft's marketing warning that companies that did not embrace technology would be left behind in the race for greater productivity (www.worldcongress2002.org). Every business must consider the gains they expect to get from technology: fulfillment of customer needs, increased productivity, and increased shareholder

The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency.

—Bill Gates

PEOPLE	BUSINESS PROCESS	TECHNOLOGY
<ul style="list-style-type: none"> ✓ Ongoing data entry ✓ User friendliness ✓ Intimidation ✓ Lack of basic skills ✓ Lack of understanding of the new technology 	<ul style="list-style-type: none"> ✓ Work flow changes ✓ Little standardization among software applications ✓ Information overload ✓ Data security 	<ul style="list-style-type: none"> ✓ Ongoing maintenance, support, and upgrades ✓ Life span of software and ultimate replacement ✓ Next year's model ✓ Software vendors promising the world, but delivering less

Figure 1. The fear of technology often has a sound technical basis, but don't overlook human factors.

value. If technology is not coming through on its promise, Murray said, business should not hesitate to question its value. Applying technology will not magically solve all of your problems if you have ineffective business processes. When applying a new technology, take the opportunity to evaluate and streamline your business processes. Decide upon the metrics you will use to determine if you are making business gains and review results periodically against these metrics.

Be Honest

Communicate frequently, up and down within the organization. Tell people the business objectives of the new hardware or software project, tell them the impact it will have on them, and don't have a hidden agenda. If the project is a long-term one, be sure to communicate staffing, schedule, and budget changes, so there are no surprises. This way, you can enlist support rather than build resentment within the organization.

Be Open

Avoid the secrecy commonly associated with IT projects, where business managers define what they want, and the IT department goes off in a "black box" and builds it. Let people see the new technology working, and involve them in focus groups or pilot projects as appropriate. Be open in communicating both progress and setbacks. Be sure to communicate strategies for mitigating risks and setbacks.

Identify and Empower a Team

Identify a multilevel team of colleagues with the ability to influence their peers and champion the project; select team members from EH&S, operations, management, and IT disciplines.

Allow that team to evolve the implementation within business guidelines. Set team rules at the project's onset and define team member roles and responsibilities. The outcome should be the application of technology that meets a consensus of needs with a holistic view.

Provide Training

Learning to ride a bicycle takes training wheels, physical and moral support, and a bit of practice to become proficient. You may fall a few times along the way. Applying new information technology is no different. You can't expect people to be experts the first time they use a new system. Understand that there is a learning curve with new technology and give people time to acquire and develop the skills they need to use the system productively.

The application of new technology invokes fear in even the most "high-tech" among us. Realize that fears go beyond human nature to resist change and often have a technical basis. You can help overcome these fears by using a sound management approach when rolling out new technology. ☞

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