The Mouth of The Kenai

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Deploying new technology, strategically

By Joseph Kashi, for the Redoubt Reporter

Optimizing your technology investment involves more than simply choosing the best hardware and software then available.

When, and how, you implement any new technology probably has a greater positive or negative benefit than the specific products that you actually deploy. That's true for any new technology investment, including digital photography and computer technology.

During the early stages of any technological advance, a bewildering amount of new hardware and software comes on the market quickly. Usually, such technology is immature and the hardware and software may not work as well as advertised.

Immature technology is typically buggy, not very fast and often quite expensive. Remember Compaq's early 40-pound, $4,000 luggable computers that had no hard disk, or Kodak's 2002 $8,000 pro-grade dSLR cameras that no one bought? No one else remembers them, either, and yet Kodak literally invented digital photography and Compaq used to be one of the biggest names in personal computing, not HP's cheap house brand.

Buying at the leading edge usually does not confer any significant long-term advantage unless you're an early adopter who has the commitment, financial resources and technical knowledge to stay current by adopting newer technology as it matures. If you spent $8,000 back in 2002 for a disappointing camera, then there's a good chance that you soured on buying any more dSLR cameras for a while, even if you did have money left over.

Unless a person or organization has the ability and commitment to remain in the technological forefront, and has the resources to do so, then there may be a net negative result from adopting the first wave of new technologies before they mature into some broadly compatible standards. Instead, it's probably optimum to catch the second wave of any new technology rather than the bleeding edge and upgrade every two to three years.

Over time, most electronically based technologies improve until only minor improvements remain: quality, price, performance, functional design and reliability have reached generally acceptable levels and there's little benefit to upgrading regularly. Have you noticed that most new computers are not perceptibly faster than top-end models offered two years ago?

When technological maturity is reached, users gradually become comfortable with whatever technology is familiar to them, and it's all too common for stagnation to gradually set in. When that occurs, problems often slowly accumulate as those initial bursts of innovation settle into routine, and routine then leads to personal and organizational complacency and smugness. As Proverbs 16:18 reminds us, "A haughty spirit goes before a fall." Ask GM, Toyota or, if you're a history buff, the Japanese Navy on June 6, 1942.

Proven strategies

- Never buy bleeding-edge computer or digital photo technology. Wait until it's been on the market for at least six months and professional reviews have found it to be stable, reliable, actually useful and better than its competitors.

- Define your needs before you leap. In order to be effective, technology must address definable problems and have clear-cut, beneficial results. Until you have thought through your real needs and strategies, it is premature to buy new technology to get you there. Instead, reflect for a while upon what will actually benefit you and whether the costs and upgrade hassles make sense. Ask others about their experiences with similar technologies — you'd be surprised at how few people actually ask others rather than just read the ads.

- Pace your acquisition of technology. Establish realistic deadlines and budgets and introduce technology in small, easy-to-digest steps. Test one sample first and be sure it's what you need. Make notes about what you've done and changes that you've made in case something goes awry. Update your business model, working style and organization to new capabilities. Assuming that you have made sensible technology purchase decisions, then the real question becomes how to adapt your business model, personal working habits and organizational processes in order to take best advantage of any technology that you acquire. Don't just throw expensive new technology at the same old problems done the same old way without first carefully thinking through whether you can do the same things in a different, more efficient manner, and whether you should even still be using the same business model or working habits. Basically, can you change what you do and how you do it to take best advantage of existing technology or of emerging capabilities? Buggy whip manufacturers basically went out of business in 10 years at the dawn of the 20th century, as did photo film makers by the early 21st century.

- Determine short- and long-term goals. Differentiate between long-range goals, like moving to a paperless office, and short-range goals, like making your e-mail easily searchable. Ask others in your business what would save them time. Often, simple changes make the most difference.

- Purchase hardware upgrades only when you're ready to actually use the product. As a very rough sense of scale, consider updating both computer technology and digital photography equipment and software every three years or so. Much quicker than that and you'll probably not see enough difference to be worth the cost and disruption. Much longer and you may encounter version-to-version compatibility problems and frequent hardware failures.

- Standardize upon well-known and broadly popular hardware standards and software made by companies that are likely to continue development of their products a few years hence. Adobe Acrobat and Photoshop are obvious examples, as are ATX-style PC computers.

- Plan for the future. Be sure your software and hardware have clear upgrade paths and file format conversions from stable vendors. Where possible, use open hardware standards like SATA hard disks, ATX system boards and USB external attachments. Avoid proprietary hardware designs, as they'll likely be orphaned quickly.

- Exercise constant management oversight. Efficient business automation doesn't mean just buying a computer and some software that you may use occasionally at best. Business automation projects now typically encompass more complex undertakings that require regular oversight by skeptical managers and users. Be sure you don't go overboard and become swamped by too many changes happening so quickly that they can't be feasibly implemented, made to work together and easily learned by users within a reasonable time.

- Go far enough to meet your goals. Failing to learn critical knowledge and to buy everything needed to meet your technology goals is the flip side of going overboard. Let's say that you've decided to become a serious digital photographer and make your own fine art color photographs to enter into juried competitions. You've spent a wad on one or two expensive dSLR cameras, a range of expensive lenses, the top-end version of Photoshop and a $3,000 professional, wide-format photo printer. Yet, if you don't take the time and trouble to learn about digital workflow and how to reliably color profile your monitor and printer, you'll waste a lot of expensive supplies and almost inevitably be disappointed by your final prints.

- Avoiding hobbyism: Computers and digital cameras, once tools of serious business and professional users, are now mass-marketed hobby items and the sizzle is pushed rather than the underlying steak. It's easy to divert a significant portion of our attention away from the more important task of learning necessary skills to the sort of consumerism where we're constantly acquiring neat gadgets or newer technology that seems interesting and fun but which drain our time and our bottom line. Ask yourself, in all honesty, how often do you really need the capabilities of expensive equipment, like faster gaming computers that have 50 flashing lights, when you're mostly using e-mail and the Internet, or a pro-level digital camera when you're principally posting low-resolution photo images to the Internet?

Local attorney Joe Kashi received his bachelor's and master's degrees from MIT and his law degree from Georgetown University. He has published many articles about computer technology, law practice and digital photography in national media since 1990. Many of his technology and photography articles can be accessed through his website, http://www.kashilaw.com.