Column: The Bleeding Edge

putting money up to build middle-mile fiber projects in almost every state. This, in turn, generated renewed activity in the markets for fiber and other core equipment, as well as planning for new data centers and interconnection points.

Broadband Internet continued to expand, covering up to 96 percent of U.S. households by the middle of the year (according to the Federal Communications Commission reports). Connection speeds continued to increase for consumers nationwide, except for cable and wireless broadband, which remained slow and expensive.

Facebook amassed more than 500 million users, as increasing numbers of seniors flocked to the social networking scene to correspond with their families and to tend their crops in the outrageously popular game of "Farmville."

And tablet PCs crashed back into the marketplace with the introduction of Apple's iPad, once again revolutionizing the way we look at computing hardware even if didn't exactly capture the business world. What did capture the business world was another device, Amazon's Kindle, which entered its second generation with solid growth as an indispensible tool for the thinking executive.

With all of this activity as a background, we took our annual stab at predicting technology for 2010 at the outset of the year. Here's what we predicted and what actually happened:

Prediction: Cellular broadband will begin to dominate wireless.

Actual Results: No question we got this one right. With the market for smartphones now in a three-way cat fight between the iPhone, those based on Google's Android operating system and Microsoft's System 7 for phones, data use over cellular is

growing at a pace unforeseen just two years ago. The downside? Capacity shortages

manufacturer. The upside is convenience and cool. The downside is that the technology needs to mature and the software needs to catch up.

Score: 1.0

Prediction: PDF files will dominate filing.

Actual Results: Remember "DOCx," Microsoft's abortive effort to challenge Adobe in the document portability arena? Don't feel bad, neither does anyone else. DOCx will go down in history as that annoying new default in Microsoft Word that made it impossible to trade files for nearly two years.

Score: 1.0

Prediction: Telecommuting will finally get real.

Actual Results: You can thank the winter of 2010 for this. Massive snow storms early in the year paralyzed the federal government and forced business and government alike to start getting real about telecommuting as a disaster response. A little federal legislation and the support of the White House didn't hurt, either.

Score: 1.0

Prediction: The future of "cloud computing" will be ... cloudy.

Actual Results: Just when it looked like the entire world was ready to ditch their

Prediction: Google will introduce a new desktop operating system.

Actual Results: This is still a reality, but didn't happen in 2010. Instead, Google pushed its smartphone operating system and developed a car that can drive itself using GPS and maps. There is still a Google desktop percolating away, but I have given up trying to predict when and if it will become a reality.

Score: 0.5

Prediction: Intuit will push into the enterprise.

Actual Results: There are enterprise versions of QuickBooks, of course, but for this year Intuit seems content to have shored up its middle-market position with some tweaks and minor enhancements.

Score: 0.0

Prediction: PDF files will replace paper.

Actual Results: This was the year of Document Management, with accounting software companies pushing hard into the marketplace even as new challengers arose. The result? Nearly every accounting firm of any size now has a robust document management system in place, even if they may never actually go "paperless."

Score: 1.0

Prediction: Internet capacities will increase dramatically, if you pay.

Prediction: Compact disks will begin to die.

Actual Results: A year ago, I would have bet that the compact disk would give way to a thumb drive or SD card format, but instead a direct download from the Internet to the listening device has become the de facto standard. But your compact disks just officially went the way of the 8-track tape.

Score: 1.0

So all-in-all, this was a typical year for the tech predictions with a score of 8.5 out of a possible 10 points. And it proved an interesting year in that for all of the bad economic news, technology remained strong. And it became even more integral to the future growth of the economy worldwide. With that as a prelude, let's turn to the year ahead and see what 2011 has in store.

2011 Technology Predictions

1. Internet applications will continue to lag Internet speeds. Sure, some other countries have Internet speeds of a hundred Mbps, and in the United States we are moving in that direction. But the question remains ... for what? Unless you are addicted to YouTube or want to risk jail time for illegal downloading, what do you do with all that capacity? The industry needs some serious (and compelling) applications if it expects to continue to sell premium accounts to power users. But don't look for that killer broadband application this year. This will be a year of catch-up, as the Internet industry seeks balance between platforms and technologies.

2. Printer Management will be the new efficiency hot button. The computer

3. Facebook will go public, but... Fresh off a successful movie about its founders, more than 500 million subscribers and its success in pushing a variety of online games and causes, Facebook is ready to go public. The company has positioned itself for the move with the creation of a class of stock that can be sold on the open market, and with even the tiniest bit of encouragement this could be the biggest IPO of the 2011. But there is a cautionary note for potential investors in the privacy woes, virus attacks and other problems emerging with the social networking business. And Facebook must contend with the fact that consumers — especially young and trendy consumers — can be fickle. Just ask AOL.

4. Small desktop computers are "in." The hottest size for laptop displays is 10 inches or less, and "netbooks" are giving way to the even smaller "tablet" computing formats. It isn't taking long for the desktop to follow suit. The rage in desktop PCs for the coming year will be small cases and all-in-one systems that have everything built into the monitor. I'm personally intrigued by the micro PCs, such as the ASUS line of eeeBox PCs, which include most of what you need in a compact little box that can stand on the desktop or attach to the back of a flat-screen monitor. For under $500, these devices could use a little more muscle — but then, the same was true of netbooks when they first hit the marketplace.

5. Internet crime will get worse. Much, much worse. I'm not a fear-monger when it comes to technology, and I still believe that reasonable precautions and a good security program will see most users through. But the Internet crime scene has changed. It's no longer "script kiddies" trying to hack computers for fun. These are serious organized crime rings operating on a global scale with ever more effective ways to bombard you with phishing sites, spam and hacks. Add to this the number of governments engaging in cyber-war, and things can get very rough out there. Don't panic, but do take it seriously.

6. The computer you really want will cost $250. I remember the good old days,

7. Big-screen monitors will take the market. No, not the television market — big, flat-screen models already own that market. I'm talking about the market for PC monitors. The new generations of big-screens have been set up specifically to handle double duty as a computer monitor, offering less eye-stress and the ability to work from an easy chair with just a wireless keyboard in your lap. The downside of all of this? Better plan on another big-screen or two for the family room, to handle one for TV, another for gaming and a third for the family computer. The upside? You can switch between your accounting program and the Super Bowl at the touch of a button.

8. Cell-Fi will replace Wi-Fi for accountants. Two things are happening in the wireless marketplace. As we noted last year, cellular wireless is taking the dominant position as cell companies roll out the higher-speed 4G networks this year and begin to push cellular as a broadband solution. At the same time, it is becoming increasingly apparent that Wi-Fi hotspots can't offer the security or mobility of a cellular-to-Wi-Fi device. From audit teams to road warriors, these cell-to-Wi-Fi devices are fast gaining prominence in the field for their better security, relatively low cost and small profile.

9. Tablet PCs will prove a flash in the pan. I am almost certain to get hate mail for this prediction, which flies in the face of PC manufacturers, the Gods of Apple Computing and the 300 million people who own tablet PCs. But let's be honest, tablets are just not sturdy enough for the family computer. They don't have enough business applications to make them a general solution for professionals. And the screen is too small for us ... well, seasoned executives. Already, I am seeing early adopters to the iPad setting them aside for a small PC. That trend will continue, and in the end the tablet PC will claim its position as a niche player in the PC/Notebook markets.

10. We will finally adopt IP v6. Version 6 of the IP protocol for the Internet has been

These won't be the only major developments in the coming year. After all, this will be a year in which we will see ever-larger hard drives. Hollywood will begin to get a clue about the realities of the Internet. Internet speeds will increase. Technology costs will decrease. Devices will get smaller. Your kids will know more about technology than you do.

You'll be more involved in tech audits, as companies looking to emerge from the recession will seek a competitive advantage through better use of technology. And in printing audits, to slash unnecessary costs through centralization of networked printing devices and cartridge recycling.

And somewhere out there is a technology we have not yet imagined — a service that has yet to appear to disrupt the marketplace — an idea that will seem so obvious once it has appeared. And through all of it, we will be here to examine it, present it and make it viable for the accounting profession. n

Technology

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