From the January 2009 Issue

As it was with the rest of the nation, the year 2008 was divided into three segments for the tech industry. The first third we could call the calm before the storm; the second was the shock of gasoline prices, and the third was a massive bungee jump called the economy.

Wedged in at the end was the falling price for most tech gear, resulting from Asian manufacturers dumping their products into the marketplace to capture what holiday spending there might be. This, in turn, spurred a massive buy of very cheap computers, large-screen TVs and other devices. But much of that activity occurred very late in the year and did not contribute much to any major buying trend.

We started the year wondering who would win their respective primaries, whether the nation needed new laws to protect "network neutrality," and whether anyone in the cell phone industry could top the iPhone. We ended the year with a new president, a tech industry in disarray and a new cell phone from Google.

Along the way, rapidly rising gasoline prices should have spurred new interest in telecommuting, but it didn't. It should have inspired AT&T, Verizon and Sprint to do a better job of finding a new and improved smart phone to compete with the iPhone, but it didn't. It should have led to a little more respect for Windows Vista, which in spite of the goofy television ads is shaping up to be a strong and secure operating system; but it didn't.

Instead, we got the following: a WiMAX debut that turned out to be less than impressive; the hacking of Sarah Palin's e-mails; Comcast slowing the downloads from BitTorrent; a Yahoo! that didn't want to merge with Microsoft,

2008 PREDICTIONS & RESULTS

Prediction: Energy-efficient lighting will catch on.

Actual Results: We personally hate the things, but, my word, how they have caught on. Their popularity was spurred by legislation that phases out the old luminescent bulbs in favor of the new fluorescents; a modest reduction in energy consumption; and the fact that the new generation of energy-efficient bulbs are better, brighter and produce better lighting than their predecessors.

Score: 1.0

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Prediction: Payroll Services Will Become Less Lucrative.

Actual Results: We hate to concede this, but we were dead wrong. Yes, there is more competition than ever from software packages, banks and other sources. But accountants have hung on in this niche for far longer than we ever thought would be profitable, and made money doing so.

Score: 0.0 — (Note from Greg LaFollette: I told you so!)

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Prediction: There will be a technology scare backlash.

Actual Results: It's just not that scary out there,
and the public seems to be growing weary of claims that it is.
Viruses are
not eating your computer, there is not a predator lurking on every
corner
of the Internet, and your computer has not been turned into a
zombie. Practice
reasonable safe computing and ignore the "scareware."

Score: 1.0

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Prediction: The candidates will not be kind to technology.

Actual Results: While even the new president acknowledges
that technology is important to the future, it is not likely to be the focus
in 2009. The continuing war on terror, the economy, and social issues at
home
have all pushed tech onto the back burner.

Score: 1.0

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Prediction: Home technologies will move to the forefront.

Actual Results: It's not the last mile that counts,
but rather the last 30 feet. We're already seeing a renewed use of
Bluetooth, interconnections between portable and home devices,

and better

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Prediction: Macintosh computers will lose some of their luster.

Actual Results: Poor Mac. What luster it once had as the "counter-culture" computer has long since worn off, and today it is the computer of choice only for a small minority of users. Stable, solid and innovative in a myriad of ways, the Mac still can't compete with Microsoft's market share, the market power of third-party applications and the fact that it is harder to tinker with. Still, they are not as dead as I thought they would be last year.

Score: 0.5

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Prediction: Bluetooth will actually work.

Actual Results: It is safe to say that without cellular headsets, Blue- tooth would have been dead by now. But the cellular revolution, state laws mandating hands-free mobile use and new applications to interconnect mobile devices with home theaters is breathing life into this platform. Not to mention better performance and more consumer acceptance.

Score: 1.0

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Prediction: Video on demand will become viable.

Actual Results: Most of the cable companies now offer video

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Prediction: Internet connections will be awful.

Actual Results: We don't want to seem churlish, but when did "unlimited" become "only as much as we want to give you?" Not only are the networks limiting bandwidth, video pirates and kiddie downloaders can slow the average connection to sludge.
The answer may be tiered pricing or more capacity, but broadband these days can seem little faster than the old days of dialup, and that's simply not acceptable.

Score: 1.0

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Had it not been for the bad call on payroll services, we would have had a solid 9.5. But we'll have to settle for a full point less, just as we did last year. Ah, well. On to the year 2009. Here are the predictions:

2009 PREDICTIONS

1. **This will be the year of the femtocell.** Though it has one of the worst names ever for a great tech product, this handy little gadget will prove invaluable to small and home offices that suffer from poor cellular reception. The femtocell basically connects to your cable or DSL line, routing cell phone calls over the Internet instead of through the nearest cell phone tower. It acts seamlessly to keep call routing efficient, converging cellular

and Internet technologies in a way that will make sense for homes and businesses.

wide range of business and government organizations have opted to stick with Windows XP rather than upgrade. The new Windows 7 will be treated with some skepticism in its first year, and while it may eventually prove the path to the future its adoption will be slow.

3. **WiMAX won't go much of anywhere.** Sprint launched the first commercial WiMAX network in the United States in 2008 with a test bed in Baltimore. The roll-out was nearly everything Sprint could have asked for, and the Federal Communications Commission gave its blessing for a joint Sprint/Clearwire project to build a national network based on this 802.16 wireless technology. There are just two problems with the idea. First, there is no appreciable demand for the product, which seems to be most an also-ran replacement for Wi-Fi. And the cellular industry has been successful in launching its own 3G networks that are somewhat more capable at mobile connectivity than WiMAX. Look for Google, Intel and others to back WiMAX, but don't look for it to go far.
4. **Technologies for environmental action will move to the forefront.** Much of the reason that "green" implements for environmental action have not reached consumers is that the technology industry was engaged elsewhere – building the Internet and figuring out what to do with the iPhone. But the gas crunch of mid-2008 refocused the industry on the fact that solar, wind and other alternatives can't work for consumers because they are too large, too expensive and too clumsy. That will change in 2009, with a raft of better ideas for "going green" that are more affordable and less complicated than what we have today.
5. **We'll get a technology czar in Washington.** Early in his campaign, President-Elect Barack Obama floated the idea of creating a cabinet-level Chief Technology Officer for the nation. Though it has not

been mentioned since, this is an idea so sensible and important that it is

don't even call them notebook computers anymore, this new generation of browsing and email devices from a dozen or more companies. Asus and Acer are battling it out for the 9-inch screen mini-computer market, while Sony and Fujitsu are staking out the market for 5-inch screen devices. Any way you cut it, these "ultra-mobile PCs" are a growing segment of the market that offer lighter weight and a smaller profile. And if they don't do everything that beefier notebooks do, they can be had for about one quarter of the price.

7. **Tech will get cheaper. Much cheaper.** With falling economies all over the globe, the people who make the bulk of tech equipment in Asia have decided this is no time to be caught with large inventories of either parts or finished products. The result is that, starting in late 2008, they dumped products into the U.S. market at prices substantially lower than in the past. Televisions, stereos, computers, laptops and more can be had at prices that would have seemed impossible just a few weeks ago. While consumers will win in the short run, this product dumping is almost certain to do major harm to U.S.-based companies that include Dell and HP.
8. **Google's android phones will have only moderate success.** Sure, the early adopters will rave about this new mobile phone platform, and it will get high marks from the third-party developers and open-source software advocates. But three problems will haunt the Google effort. First, the largest cellular network companies will not be in any big rush to let Google's foot in their door. Second, Google is dabbling in a market in which it has virtually no expertise – usually a sign of problems to come. But third and most critical is that the users of smart phones are a fickle lot who like new stuff at regular intervals. Unless the Android operating system from Google can re-invent itself every six months, it will be just one of the dozens of "used-to-be" phones.

9. **VoIP companies will die.** To understand why, it helps to

languished (though I have personally used and liked it when traveling overseas). Vonage has never gotten out of the venture capital stage of its life, and is unlikely to survive the current economic downturn. While this will be the end of these companies, it will not be the end of the technology of VoIP.
0. **Internet companies will begin a new wave of consolidation.** The reality is that there is not room in the marketplace for 20 large competitors, because this breeds inefficiencies. With fiber optic cabling slowly replacing copper wire as the leading method of carrying and Internet signal, look for the first signs of industry consolidation among network operators that include both cable companies and phone companies. While it is unlikely we will see AT&T merge with Verizon, it is not out of the realm of possibility that AT&T and Verizon will both seek mergers with major cable companies or satellite companies to enhance their Internet viability.

There is more that 2009 will bring, of course. It will include major trends in accounting software that include continuing consolidation and the move to Software-as-a-Service (SaaS). It will bring the battle over how to fund rural deployment of broadband. Flexible-screen monitors may or may not finally make a debut during the year. And much more.

Like the other major editors from this and other publications, I'll be off to Las Vegas in early January to assess what appears there, and to gain better insights into how the year will unfold.

Technology

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