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June 2001

Opening a small window on the future

In less than a month, I'll begin what has become an annual pilgrimage to New York City where PC Expo, TechX NY, Mobile Focus, and Digital Focus will sweep my mind into next year. While "next year" may not seem very far, that's about as far as one can go with any reliability into the future of hardware and software.

In the past 15 years, everything involved with computing has become smaller physically, more capable, and less expensive. The first hard disk I bought was an external unit in an enclosure the size of a shoebox. Its capacity was16 megabytes (more than 50% larger than the "standard" drive!) and it cost over \$1000. Its data transfer rate was a little faster than that of a floppy disk.

Today you could walk into just about any computer store and buy a hard disk with 1000 times the capacity of that old disk drive. Instead of being 8 inches tall, 8 inches wide, and 15 inches deep, it would be no more than 1 inch by 4 inches by 6 inches (maybe a lot smaller). And you'd pay \$200 at most.

Fifteen years ago, most computers had 1 megabyte of memory or less. Today, you can't find a computer with less than 32MB and it's not uncommon to expand the memory to 256MB, 500MB, or even more.

Fifteen years ago, an accelerated AT (80286) processor ran at 10MHz, 16 bits. Today, any computer than runs at less than 300MHz (32 bits) is considered intolerably slow and 1GHz processors are becoming increasingly common.

What will be big this year?

Several technologies that have been developing for the past several years will become major forces in the coming year. Here's a quick look at some of what I expect to see.

Wireless connections

If you blink, you may miss the wireless application protocol (WAP). This is the technology that allows you to see websites and read e-mail on special telephones or devices like the Palm VII. It's being promoted heavily, but it's about to be eclipsed. WAP is excruciatingly slow. The next generation of cellular technology will improve affairs. That new technology was to begin being rolled out this year, but the weak economy may delay things a bit. Still, it's coming, and WAP will be remembered – if it is remembered at all – as a transitional technology.

Home networks

Easy: You're going to have one. If not this year, next year or the year after that. And it will probably include some components that communicate wirelessly.

Firewire

If you like universal serial bus (USB) devices, you'll love Firewire. Also known as IEEE-1394, this is a superfast data transfer technology that initially will be used to connect sound and video devices. Most Macs have Firewire and the technology is showing up on new PCs, too. Eventually, it may replace more traditional protocols such as SCSI to connect large, fast disk drives. And that will lead directly to ...

Desktop video

Word processing software made standalone word processors obsolete. Desktop publishing gave users control of typesetting. Audio editing software has begun to emulate studio systems costing tens of thousands of dollars.

Desktop video will be next. Firewire provides the high data transfer rate needed. CPUs in the 1 GHz range and accelerated video adapters are fast enough to keep up with the needs of video editing. And just in time, we're starting to see ...

Mammoth removable storage

Most of today's computers come with a CD-ROM writer and possibly with a DVD player. The next generation of computers will have DVD writers. These are available now, but prices are too high. Writable DVDs hold 5GB of data, enough for a lot of full-screen, full-motion video.

Application service providers

Microsoft is pushing the ASP concept to generate a steady income. I'm **unconvinced** that major applications will be better or more reliable, but other ASPs services are worth looking at.

Example: Data backup, data storage, sending and receiving faxes, voice mail, and project co-ordination are good fits for the ASP concept. Because many of these functions have been provided for free, the challenge will be for ASPs to develop a price structure that's low enough to be attractive to users and high enough for the ASP to make a profit.

What the heck is this?

Dead Trees is the William Blinn Communications newsletter. It's published whenever I feel like it, although I generally feel like it when I'm preparing the month's invoices. If you didn't receive an invoice with this newsletter, kindly contact me and we'll rectify that situation. Please note that despite the name, of the publication, I bear no particular animosity toward trees. The name is simply an acknowledgment that paper is made from, well, dead trees.

Speech recognition and OCR

Despite the legal and financial troubles facing Lernout+Hauspie (and therefore Dragon Systems), speech recognition is a technology that will not go away. The market for speech recognition in the office today is small, but product developers are building speech recognition into a wide range of products.

Optical character recognition is an essential part of the process of digitizing old data that's on paper, but this is a technology that never quite caught on. Still, if you have documents that need to be digitized, today's OCR programs are more than adequate for the job.

Security

We've seen only the beginning of security concerns. Crackers who damage systems and thieves who steal data will become better at what they do. The so-called "rogue states" will increasingly begin to attack computer systems because it's cheap and easy. Juvenile fools (not all of whom are juveniles) will continue to wreak havoc because they think it's fun.

A little more than a year ago, a distributed denial of service attack caused a lot of big websites to fail. It can happen again.

Because many users do not understand the danger, they open attachments without even thinking about what the attachment may be programmed to do. Antivirus software is falling behind the threat, so the next safety-net products will have to monitor the operating system for suspicious behavior by applications. Some antivirus software already does this to some degree, but the capabilities will expand in the coming year as the good guys put less emphasis on identifying *specific* threats and more emphasis on identifying *threatening actions*.

Fast, continuous connectivity

Now widely available in metro areas, cable modem and digital subscriber line (DSL) access make it possible for increasing numbers of people to work from home by giving them office-like access to the office systems. Expanding this connectivity to rural areas will be slow because of the cost. In the near term, the only high-speed service likely to be available will be satellite based.

And that leads us to ...

Voice over IP

Large corporations will use this technology first because it will be expensive to implement fully. Imagine sitting at home with your phone and computer connected to a broadband Internet connection. Someone calls your office number and the phone on your desk at home rings. The call will have been routed to you via voice over IP (VoIP). Unless the dog barks, your caller will never know you're not in the office. The same thing can happen when you're on a business trip. VoIP is one of the last critical links in making the virtual office work like the real office.

E-commerce

The dot-com crash seems finally to have burst the bubble of insane anticipation. No longer can one expect to come up with a concept like "laxatives.com" or "monkeywrench.org" and then to have venture capitalists throw obscene amounts of money at

a new company with no employees, no assets, and no business experience.

But e-commerce thrives. Traditional businesses are expanding into e-commerce as former Internet-only companies begin to look at traditional retailing. Managers have realized that the Internet isn't magic – but that it should be part of the business plan. In the coming year, we'll see more opportunities here.

Innovation continues

That's just what I expect to see – and PC Expo always throws a couple of surprise pitches. New technologies that seemed further in the future. Or something entirely new. I'll be in New York from June 23 through June 30 to see what's new. The expected. And the unexpected.

If you haven't yet ordered your full PC Expo report, please let me know. I'll hold the \$200 price for all orders placed on or before June 15. B

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Special for Corel users

This year's **CorelWORLD** will be in Boston (September 9 through September 14). I'll be delivering talks on website design, "hidden treasures" in the CorelDraw 10 box, and using digital photography to speed publishing schedules.

I'll make information from these three sessions available here in October, November, and December, but if you want to learn from the several dozen other programs covering CorelDraw, Photopaint, RAVE, Ventura Publisher, and more, you'll just have to come to Boston.

For more information, see Rick Altman's website at www.Altman.com. This year's event is the 12th annual program. Attend CorelWORLD just once and you'll understand why people continue to return year after year and why some of them have been to every single session.

Corel products

- **Draw 10**: Released early this year with some nasty bugs included. Most of the bugs have been exterminated with a service pack.
- WordPerfect Office 2002: Released in May. Good solid workhorse. If you're a WordPerfect user, you should upgrade to this version. I say that even though Wordperfect continues to bleed resources from:
- **Ventura Publisher:** Still at version 8, but still more powerful than competing programs. If you publish books, brochures, or magazines and you're using something else, you're working too hard!