

On the cusp of another digital revolution

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Five years ago, the IT industry was in a slump. Graeme Philipson finds it's now hot stuff.

Back then the industry was in the doldrums, stuck in a trough after the dotcom bust. The US NASDAQ index, a good indicator of confidence in the IT industry, peaked at 5130 points on March 10, 2000. By October 2002, it had fallen to 1109, losing more than three-quarters of its value.

Since then it has recovered slowly and is now back above 2500. Some people have talked about a second boom - although unless you own shares in Google it's nothing like the first.

But will we have the expertise to capitalise on this boom? John Dougall is executive chairman of services company AWA and one of Australia's best-known IT entrepreneurs. He says the biggest change he has seen in the industry since 2002 is the decline in the attractiveness of IT as a profession. He is concerned about a serious IT skills shortage.

"Around the early part of this century the Australian IT industry experienced the perfect storm," Mr Dougall says. "The investment boom brought about with retooling for Y2K and the GST ended, and the tech-crash hit. Companies that had been investing heavily in IT for a few years - both users and vendors - stopped doing so.

"And at the same time we saw a massive increase in outsourcing to India and other places. IT jobs dried up. There had been talk of a skills shortage, but suddenly we saw significant unemployment.

"That in turn led to a decline in the number of people entering the industry, which means we are now facing a very real and very large skills shortage as things pick up again. It's already getting very hard to find good IT people."

If we can't find the workers, at least we can amuse ourselves. Peter "the Gadget Guy" Blasina has built a business around understanding the digital lifestyle and the electronic gizmos that make it all happen.

These devices have changed our lives in a short time, he says. "We are witnessing the convergence of the consumer electronics and IT industries. Increasingly, computers are part of home entertainment, with digital TV and music, media centres and the delivery of content via the internet.

"Another major change is the sheer penetration and ubiquity of the mobile phone, which is now a camera and a music player and much more. The iPod is also barely five years old - it has changed the way we buy and store and listen to music."

This technology spurt has not just been confined to gadgets. Some of the recent changes rival those of the internet boom of the 1990s, says Bruce McCabe, principal of industry analysts S2 Intelligence.

"People have been talking a while about Web 2.0 as a catch-all phrase to describe some of the changes to the internet, and now it's really happening," he says.

"The biggest change has been the rise of web services. Bits of software can talk to other bits of software much more easily now than they could in the past."

The internet has become increasingly participative, Mr McCabe says. MySpace started in 2003 and YouTube only in 2005, yet in just a few years they have revolutionised the web.

"People can share ideas and images and interact with each other in whole new ways," he says. "With Google they can effectively create their own search engines. They can blog and podcast and 'wikify' and do all sorts of things we could not even imagine until very recently."

Another important recent change is the increased importance of spatial information and location-based services and applications. Google maps, GPS, location sensors and soon RFID are changing everything from mobile applications to corporate business intelligence. The real-estate truism is coming to the Web: it's all about "location, location, location".

So, where are we likely to be five years from now? One thing is certain: Moore's Law, and all the other technology improvements that underpin growth in this industry, will remain in effect. Computers and mobile devices will continue to become less expensive and more powerful, storage capacity will continue to rise and bandwidth will increase.

What is less certain is the effects these changes will have. In this fast-paced industry five years is long enough for entirely new technologies and products to emerge - SMS messaging, the iPod and Google all went from the non-existent to the commonplace in less time.

Individuals and companies are still grappling with how new services will be delivered on mobile phones, to digital and internet television, and on how to implement the infrastructure that will make it all happen.

Also, the digital rights management (DRM) debate - what constitutes copyright infringement - is far from over. It's not just about technology, it's also about making adjustments to business models, distribution systems and consumption patterns as that technology makes the old ways irrelevant.

Nowadays our perceptions of reality tend to change much more slowly than reality itself. The disconnect between the two is the one thing that is unlikely to change.

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<http://www.smh.com.au/news/technology/on-the-cusp-of-another-digital-revolution/2007/04/30/1177788054123.html#>