



Babbage And Beyond

by Rod Plastow

Prediction is a dangerous game, yet I thought that for this issue I would throw caution to the wind and attempt a forecast of just one aspect of computing in the business workplace. I was reminded of the folly of this undertaking when a speaker on a recent BBC program recounted the fact that the then president of IBM predicted in the '50s that the world would need no more than about fifty computers. Yet again I remember reading a fascinating book called "The Mighty Micro", not more than fifteen years ago. In it the author forecast the effects that large scale integration ("miniaturisation" for those of you who speak the Queen's English) would have on our daily lives. The subsequent fifteen years have seen most of his predictions exceeded although we are still not stopping at the newsagent to purchase our newspaper on a chip that is then inserted in a 'reader' while we commute to work.

The lesson to be learned from these examples is that both forecasters under-predicted the future - what seemed then to be outrageous is commonplace today.

One factor that has limited miniaturisation is that we ourselves have not also been getting proportionately smaller; there is an ergonomic limit as to how small you can make a usable keyboard. (Someone should perhaps tell Casio and one or two other palm-top manufacturers this fact.) However, voice recognition systems are now so good that the keyboard could well become redundant in the near future. Although the present technique is to dictate the text and then

use a keyboard to edit it, it will not be long before the editing and all other functionality is also performed using voice commands.

Before voice recognition is implemented in the workplace, management will have to solve the noise problem in open-plan offices. Open-plan offices are a fantastic concept when viewed from inside a manager's office but are a pain to those of us who have to work in them. The constant interruptions from speaker phones, colleagues conversations, etc. create an environment where the risks of mistakes and omissions are greatly increased. Imagine the situation where everyone is speaking to their workstations - the environment will become intolerable.

Assuming that the environment problem is solved and voice recognition adopted, why stop there? Put the Internet together with the workstation's microphone and speakers, and the telephone is potentially redundant. Further, add a video camera and all the elements for video conferencing are in place. The technicians will shake their heads wisely at this point and mumble that something called bandwidth will have to be increased before this all becomes a viable possibility. Well, the technology exists to increase bandwidth, only the investment is lacking. (For the uninitiated bandwidth is the technicians' measure of capacity or potential data throughput.)

Another coming innovation is the flat screen. At present they are about

twice as expensive as a conventional cathode ray tube (CRT) screen. This is one reason that portable computers are more expensive than their desktop equivalents. Recent technology invented in Cambridge could change this. In a few years time flat screens will be cheaper than CRTs. At first they will ape CRTs and sit on the desktop but before long we will be mounting them on the office wall (managers) or office partition (workers). Once there they will no longer be constrained by the size of the desktop and will grow. They could even become the partition itself. Mainstream support for multiple screens has arrived with Windows 98 so the partition could itself be partitioned and used for displaying segments of the same application or, more practically, displaying different applications simultaneously.

I look forward to a future at work where I stare at the wall and ostensibly talk to myself all day. The fact is that I already do this now but in future I will have an excuse. If management wish to take away my desktop because it's redundant in this new hands-free, telephone-less situation, they may do so as long as I get a more comfortable (reclining?) chair as compensation.

I was asked recently what the difference is between Windows 95 and Windows 98. The answer is 3.

