

## Computer aided or computer dependent?

Rob Bamforth, Principal Analyst

### Quocirca Comment

---

Despite fears of being replaced by robots or computers, the terms that twenty-five years ago described the use of IT in different professional sectors were less about substitution and more about support. Programmers used computer aided software engineering (CASE) tools, doctors used computer aided tomography (CAT) scanners and engineers used computer aided design and manufacturing (CAD/CAM) systems.

As IT has crept insidiously into all elements of life with applications and 'amateur' users everywhere, there has been a tendency towards over-reliance on the technology. This is often to the detriment of individuals with poorer employee training and to the detriment of business processes that are often simplified to fit the technology, rather than the end need.

Business processes should be strategically aligned to the overall goals of the organisation and tactically deliver on the day-to-day demands of stakeholders – in particular customers and ultimately shareholders. All too often solutions have been introduced by IT that don't quite meet the operational business requirements, and adjustments are typically only one way. No wonder that the UK comedy programme Little Britain's catchphrase "computer says no" has so much resonance, highlighting limitations of the technology and the initiative of the employee involved as well as inadequacies of the business process.

Losing the ability to spell and do simple arithmetic have also been put down to individuals relying on technology to do the thinking for them, with students even using internet search engines to generate entire pieces of work. Individual over reliance on technology is also well demonstrated by the appearance of road signs indicating 'sat-nav error'. Some drivers slavishly follow their personal navigation systems, rather than thinking about their surroundings or using the sat-nav as only a guide and have become trapped or lost.

There is nothing wrong with using the computers to support, aid and assist, but abdicating all responsibility for the process that has been badly or incompletely thought out is not showing signs of artificial intelligence but automated stupidity.

This is not just a problem of navigation and sat-navs, but also more fundamental business processes, which ought to be supported, streamlined and improved by technology, rather than simply or clumsily automated. Printed communications from large businesses and institutions offer clear examples of this.

Contact databases are often mined and mail merged to automatically generate letters, which completely fail to apply even the most basic intelligence to the process. For example letters from hospitals exhorting octogenarian outpatients to bring in money for prescriptions, when the IT system should have all the data it needs to 'know' they are exempt, but a suitable software trigger is not in place.

Perhaps some of the blame for this could be placed in the money grabbing palms of IT vendors and consultancies who advocated business process re-engineering (BPR) in the 1980s and 1990s, and offered it, silver bullet-like, as an externally delivered service. In prior years, many companies, especially in manufacturing would have had their own internal 'organisation and methods' departments, or would have employed consultants to simply measure or rationalise existing processes with time and motion studies and progress chasers.

The problems with BPR were two-fold; often due to the high cost it was a huge one-off exercise rather than continual incremental process, and it was often conducted by consultants with little direct experience of the specific market sector. Not only would these consultants often fail to understand the nuances of the industry sector they were advising, but the need to maximise their billable hours would mean they were unlikely to have sufficient time to keep

completely up to speed with advances in technology. Result? BPR was an expensive blip, and now has a damaged reputation.

The type of 're-engineering' generally proposed smacked of being so big an exercise that not only did it take too long, but no single person could understand its totality and it was not sufficiently flexible to deal with rapid changes and advances in IT. The emphasis shifts from assistance of something that anyone can understand to dependence on something too big to fail or be wrong.

However, new technologies and innovation – mobile working, social media, services in the cloud – force change in business processes, and so some different aspects of engineering should be applied from systems engineering – encapsulation and insulation.

The impact of the highly connected digital world on a business does not have to be tackled in one go in some massive unified or convergence process, but in incremental steps. The clever human part is in defining the separate objects and the intelligence to link them together, and then use IT to provide automated aid and deliver efficiency in each element.

*This article first appeared on <http://www.computing.co.uk>*

## About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first-hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, O2, T-Mobile, HP, Xerox, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

Full access to all of Quocirca's public output (reports, articles, presentations, blogs and videos) can be made at <http://www.quocirca.com>