

# IS in the workplace

**Prof. Simon Rogerson**

**Jon Ivins**

**Originally published as ETHicol in the IMIS Journal Volume 5  
No 6 (December 1998)**

In this issue guest author, Jon Ivins raises concerns over the implications of information flow in organisations and whether we really understand how information systems will change the workplace.

Information systems practitioners hold a range of views, usually optimistic, on the impact of new technology upon society. For example, in a recent interview, the head of BT Research, Peter Cochrane, argues that the advances in communication networks "will help banish ignorance and help the world community to become more cohesive". He explains that, "People talk about an information society, what we'll actually create will be an information economy", and warns about the need to ensure that everybody has the requisite ICT skills so that they can play their part in the new economy.

We all probably want to share such positive views of the impact of information systems on society at large. However, when it comes to the commercial implementation of IS into the workplace the new system is frequently seen as a way of doing the same things faster rather than an opportunity to do things better. The advent of electronic commerce, as discussed in the last issue, is indicative of how organisations must reinvent themselves to cope with new situations rather than simply focus on being more efficient.

There is often little or no evaluation of existing work practices and procedures in terms of their possible future relevance to the organisation. As a somewhat trivial example networked information systems allow businesses to dispense with routine tasks like the photocopying and filing of memoranda. They can be transmitted to the recipients and stored electronically. However, in many organisations the reality is somewhat different. Despite substantial investment in computers and networks the paper mountain continues to grow. Clearly the system can do the work but, given the continued use of paper, its appropriateness is called into question.

An example drawn from personal experience highlights the lack of understanding that many senior managers exhibit about IS. At a large organisation there was need for new information about a particular situation to be fed rapidly to staff. It was suggested that a private and secure, newsgroup could be set up to provide the dissemination of new information as it arrived. The head of the organisation refused to do this as "we are not

an Email culture". This comment came after the manager in question had spent a large sum of money on the provision of a data network.

One issue that is frequently overlooked in a networked IS is the management and control of data generated by the staff. How will the data be stored, backed-up, maintained and kept secure? What checks are there to ensure that the corporate database holds coherent data rather than a collection of data useful only to individuals? Who can access the data? Do information management procedures fully comply with the appropriate legislation?

As well as data management, the move towards distributed processing gives rise to other issues. Decision making can take place at lower levels of the company hierarchy - indeed, recent years have seen a shift towards flatter management structures as technology has allowed work practises to be changed.

A flatter management structure clearly has implications as to how the flow of information takes place. Both formal and informal channels of communication are altered. Because of this the response time by the organisation and individual workers, to a given situation will change. Almost as an article of faith IS practitioners will point to an increase in the speed of processing information and argue that, consequently, an organisation will be able to respond much more quickly to changing circumstances. However, increased speed can be dangerous as the stock markets have found out to their cost. Indeed, they have amended their software to slow the response times down to avoid panic selling.

Informal information flows also play a vital part in many companies. They allow a frank exchange of "off the record" views, the sounding out of new ideas and give people a sense of being connected to the organisation and other workers. It is easy for IS designers and the managers of companies to forget to consider the impact of changes to informal information flows. Indeed, it is hard to identify them, or to measure their importance, in the first place. A few design methodologies do attempt to capture informal aspects of systems but many do not.

Many of the above points have an ethical dimension. In general, the ethics of implementing a new IS are given little regard during the design process. Similarly, the health and safety of those using computers is given scant attention. Work flows, scheduled breaks from the computer and ergonomics do not seem to feature prominently in the design stage. This is not surprising when one considers that it is unusual for undergraduates studying IS and related subjects to be taught in any detail about the ethical implications of IS or relevant health and safety legislation.

Education must play an important part in addressing these issues. It must be an inclusive process drawing from both the IS user and IS development communities. Such cross-fertilisation of disciplines and ideas will help to lead us to Peter Cochrane's vision of a digital Nirvana. However, there is a long way to go yet before IS are truly empowering for both information workers and society as a whole.

Please send your views on ethical and social responsibility issues and cases of ethical dilemmas to:

Professor Simon Rogerson  
Director  
Centre for Computing and Social Responsibility  
Faculty of Computing Sciences and Engineering  
De Montfort University  
The Gateway  
Leicester  
LE1 9BH  
Tel:(+44) 116 257 7475  
Fax:(+44) 116 207 8159  
Email:<srog@dmu.ac.uk>  
Home Page: ( <http://www.ccsr.cse.dmu.ac.uk> )