



The printing and pre-press industry is suffering because of the demise of proper education and training, argues Institute of Printing consultant *Malcolm McReath*

**The printing and pre-press** industry has made a major migration during the past 50 years, moving from a largely craft-based production industry with processes that employed skilled artisans, to one that is driven by computerised production processes stretching from pre-press to print production and on to post-press applications. The printing industry is increasingly employing digitally driven print engines for the output of printed material.

In those long-forgotten days of 50 years ago, the pre-press operation employed manual photographic processes for pre-press production. In terms of producing images, a skilled craftsman would consider three colour pictures reproduced in one eight-hour day a good day's work. Today, any scanner, just to pick one item in the production process, that could not keep up with a production rate of at least 20 scans an hour would not be worth having in a pre-press workshop. We have arrived at the situation where the skill required is invested in the software rather than the operator of the equipment.

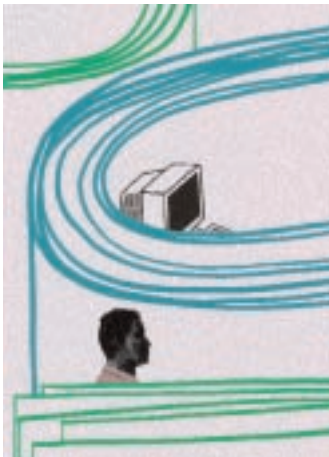
Fifty years ago, Heidelberg was still only manufacturing letterpress presses. At that time they did not consider that colour produced by offset had reached a level of development that could match the quality of letterpress, hence Heidelberg did not enter the offset market until 1958. Offset is currently the dominant printing technology, and will be so for a long time to come. However, today we are seeing digitally printed colour moving ahead, as the quality of this process improves with a growth rate of about 18 per cent a year, and there is some migration of particular types of work from colour offset to digital colour. The recent PIRA report predicted that colour digital will rise from its current 5.5 per cent market share to 13.5 per cent by 2008 (*Printweek*, 2 October 2003), and I endorse this from my own observations.

During the 1950s the apprenticeship scheme flourished. This was backed up with colleges of print up and down the country, which provided day-release and

# Pressing ISSUES



AUDE VAN RYIN



“Remaining central colleges struggle to attract students and find that, for those they do attract, there is a limitation in the scope of the courses they can offer. This is due to limited and often outdated equipment and ever-tightening budgets”

evening-class courses in printing technology for those serving as apprentices and others who wanted to further their education in print and move on in an industry that was rapidly changing from being craft-based to employing scientific processes for the production of printed material.

For those who were interested, a very comprehensive range of study was available at the colleges of print which, over a period of years, would give a young person a sound understanding of the print processes from pre-press through to finishing. Even if employers were not willing to allow their apprentices to take part in day-release programmes beyond the statutory first two years, a well-rounded print education could be obtained by attending night-school classes and the appropriate qualifications to go with them.

How different things are now! Most of the regional colleges of print have closed their doors. Remaining central colleges struggle to attract students and find that, for those they do attract, there is a limitation in the scope of the courses they can offer. This is due to limited and often outdated equipment and ever-tightening budgets.

The end result of this slimming down of the print educational process, coupled with the breakdown of the apprenticeship schemes, is that the numbers of people in the industry who have a comprehensive knowledge of printing from start to finish are few and far between. In fact, as I move around the printing industry in my work as a consultant, I find that there are only a small number of people who have both theoretical and practical knowledge and experience of the range of operations involved in print production processes, and they are almost all over the age of 50.

Is this lack of a comprehensive knowledge of the print production processes a problem in this day and age of specialisation, or is this ideal of a wide understanding of everything involved in print production no longer necessary in today's industry? I find that those involved in the production side of print are very often highly

skilled in the particular part of the print process that they serve, but frequently have little or no knowledge of the skills required both upstream and downstream of the particular operation that they undertake.

My work as a consultant (and sometimes, when things go really wrong, in court as an expert witness) reveals to me that the lack of understanding of what is necessary for each operation causes real problems in the production process, as the successful completion of each operation is generally necessary for the next to function effectively. Usually the adjacent operations hang together quite well when they are taking place in the same company and under the same roof. However, in this age of specialisation this is frequently not the case, and then major problems can arise.

In my opinion, the only way that this can be addressed is by re-establishing the comprehensive print educational process that has been progressively lost in the past 30 years. Successive governments as well as the printing industry are to blame for the demise of print education.

I take issue with the government because they have starved vocational training of funds that would give talented but not necessarily academic people real skills that are needed in print (and other industries), in favour of pushing students towards university degree courses that have a highly doubtful value for their future careers, and which prospective employers may regard as being of little value.

The industry must also take its share of the blame, as many printers have become increasingly reluctant to release members of staff for educational courses and to support print education financially.

The combination of government policy and reluctant printers means that most people who finish up working in the print production processes do so because they have somehow drifted into print without having made a positive career choice that this is what they want to do for a living. Most then receive 'on the job' training which is limited to the application they have been employed to perform. The only knowledge that people employed in this way can obtain of what happens in the rest of the print process is by what they happen to pick up, rather than coming to a point that they know and understand through taking part in a specific educational programme.

A second downside to those that have become employed in the printing industry by drifting into print is that they do not see the industry in general as their specific career. They see themselves more as a workstation operator, for example, rather than a print production operator involved in the wider process of printing. Hence if what is perceived as a better opportunity for a workstation operator arrives in another industry, there is no sense of commitment to print that would persuade such an individual to stay. Therefore the skills in print production and the wider knowledge that may have been accumulated are lost and the process of 'on the job' training starts again with someone else.

We hear a lot about the paperless office and all communications in the future being on screen, reducing the need for printed material. However, the facts do not support any drop-off in print production overall. As earlier reported, the growth in colour digital print is currently about 18 per cent a year, and offset colour printing, although not growing significantly, is not losing out in volume either.

Colour digital printing has a unique advantage over colour offset that is going to become increasingly important within the next two or three years. The buzz words in the marketing industry at present are all about Customer Relationship Management and the need to customise direct-mail printed material in full-colour graphics and text with the use of variable data from one print to the next. This area is closed to colour offset printing and open only to colour digital printing. This will be big business in the future, because it will be driven by the marketing industry and not by printers' sales efforts.

With this in mind, I believe that print has a tremendous and growing future. This means that it is worth young people taking the industry seriously as a choice of career, and worth the government and the industry putting in the necessary educational resources to ensure that young recruits are comprehensively trained in print production processes.

I have to admit that I am not holding my breath in anticipation of a change in policy on the part of the government and the industry. However, if we do not take action, I think there will be two major implications. Firstly we will have a high turnover in staff because people will not see their career and their skills as being dependent on remaining in the printing industry. Secondly we will continue to have problems and failures in quality that are associated with a lack of knowledge on the part of those in the fascinating and ever-changing science of printing. ●



Malcolm McReath FIP MAE has spent a varied career in the printing and publishing industry. After completing his apprenticeship with Odhams Press, while also studying at West Herts College of Printing, he became head of the Applications Laboratory for IPC's Research and Development Division. Malcolm then spent 11 years with Littlejohn Graphic Systems, before joining Screen (UK) as general manager in 1979. After a period as UK director for Screen, he founded his own consultancy company MMC in 1991. Since then Malcolm has provided print consultancy and expert witness services to the industry, as well as speaking at industry conferences.