

DIP Seeking the Holy Grail

The IT industry has long had its fads and fashions. An industry with an overwhelming ability to create new technology through continuous processes for innovations periodically finds itself creating solutions looking for problems.

In the early 1980s the idea of the paperless office took a firm grip on the imagination of everyone with experience of handling paper. From the paperless office concept came the office automation strategy, out of which came word processing, e-mail, spreadsheets, better copiers and ironically more paper! The gap between concept and deliverable was about the same as that between Iron Age myth and late 20th century reality.

Document image processing (DIP) is a hangover from the paperless office concept. As a technology it became seriously available and commercial in the early 1990s when low-cost scanning and cheap videodisc storage coincided with cheap powerful 32 bit microprocessors, compression techniques to reduce the number of bits in each document and wired networks to move the images of documents around for processing.

The early 1990s also brought economic recession and much business heart searching about step function changes in administrative cost structures to secure survival and future prosperity. DIP was well-positioned to offer a technological quick-fix for many business administrative problems. And yet DIP did not take-off to become mass-market and ubiquitous as had happened with word processing. Unravelling the reasons for this failure is not easy but may be instructive.

There is no doubt that the technology of scanning, storing and retrieving, managing and routing documents is impressive. Some of it may have been fragile 5 years ago but it has matured well. The early products were expensive, difficult to cost-justify and not always easy to use - but no more so than previous new technologies. There have to be other reasons for the slow take-up.

DIP conceptually must have looked like the Holy Grail for paper-junkies - institutions groaning from the excesses of their paper-driven processes and procedures. Conceptually DIP could begin in the mailroom opening the mail, registering, batching, scanning and

routing the paper. Images would be harder to lose, tear and wrinkle than paper. Images would flush down the wires - paper trollies would be wheeled out to the junk yard - and we would all live happily thereafter.

It didn't happen. The sharper buyers did their sums and found that it couldn't be cost-justified. The wiser buyers who understood the human dimensions of existing paper-driven systems realised that the sociological implications were much more challenging than the technological innovations. The smart buyers recognised that the conceptual approach was best suited to greenfield projects. Existing operations needed an iterative change process. Gradually the hard realities overtook the concepts and the dreams.

The first rule of automation is not to automate what you are doing but try to find out what you should be doing and automate that. In the early 1990s this simple law was elevated to a religion called 'Business Process Re-engineering' (BPR) and numerous organisations underwent total submersion treatment to find out what they were doing and why they were doing it. As teams of inquisitors roamed far and wide throughout these organisations they found much evidence of strange, irrelevant, outdated work processes but more importantly they found no infra-structure for self-assessment of systems and procedures. Much that was inefficient was inefficient because management and supervisors were not focused on appropriate efficiency goals and metrics. They had no mechanisms for continuous improvement so their systems decayed.

Where there were overwhelming strategic reasons sanctioned from the Boardroom, BPR led to deep structural changes in organisations but mostly BPR turned out to be improvements to existing work processes under a fashionable banner but none the less welcome.

BPR and DIP were wonderful bedfellows. Conceptually DIP could provide the technology to change a business process. Many organisation tried and many organisations failed. The failure generally was not with the technology; it was with the human dimensions of using the technology.

The technologists didn't understand the human dimensions. It seemed perfectly rational, for example, to look at three departments that were involved in processing documents and to devise a computer system and one department to replace them. Cross-functional integration, as the social scientists call it, is actually one of the most difficult management tasks to implement as managers discovered. DIP systems tend to work when implemented by one

department and one departmental manager. They can be scoped, costed, controlled, monitored and you have an accountable manager. To stop BPR and DIP getting too close in bed, one party has to have a foot on the floor.

To make commercial sense of DIP, the market for imaging and document management systems has to be segmented and cost-effective solutions applied to each segment. The two largest segments are Forms and Documents. To be cost-effective, existing costs must be identified. If an organisation isn't doing activity-based costing it is often hard to cost an existing activity and therefore difficult if not impossible to cost-justify an alternative. If an organisation does not have organised work flow it is difficult to do activity-based costing. The best projects are usually the most simple. Regretfully, market segmentation is not understood by many buyers and many suppliers and mis-matches are frequent.

DIP technology properly focused and sensibly implemented provides organisations with the business administration improvements they most actively seek - improvements in service, productivity, accuracy and the rest. DIP isn't a Holy Grail but in the right circumstances it is both useful and necessary. DIP needs activity-based costing, avoidance of premature radical administrative change in existing organisation, technology appropriate to the application and simple focus to work well.

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