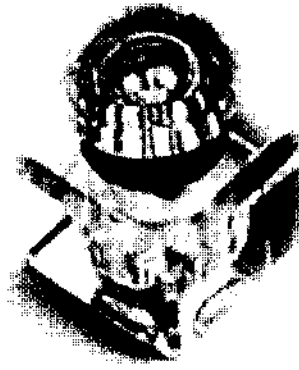# Good in a Crisis?

by Andrew Joscelyne

General Editor, *Language International*

Fifty years ago electronic computing started to redefine a whole new lifestyle, not to say job opportunities for us language people. By automating the capacity to manipulate symbols, computers introduced a new paradigm for understanding the encoding and decoding of information, and other processes underlying the creation and communication of knowledge. But above all, it largely re-engineered our technical vision of what language was. Directly or indirectly, the computing mindset was to encourage the explicit normalization of all linguistic phenomena into sets of rules—grammars—and enabled competing representations to be tested and compared. Yet even before computational linguistics proper emerged, this new tool of thought was applied to the hitherto mysterious process of translation—what else was it, argued one pioneer, but a special case of symbol trans-coding? You simply needed to work out a set of rules to transform a source-language sentence into its target language equivalent, maintaining constancy of meaning. Once programmed with the rules, the electronic brain would do the rest, or so it was thought.

As we celebrate MT's first half century today, it is salutary to look at its impact on the business of translation. Most experts would probably agree that the several million pages that have been translated with the help of MT systems over the decades have had a negligible effect on the development of the profession as a whole. Until very recently, the natural locus for automatic-translation systems has been the information-technology department of large organizations, not the translation department. Like any large computer-based undertaking, MT requires a huge effort of preparation, evaluation and support. And as the information-technology industry itself has developed into a fiercely competitive economic sector, MT programs have had to reinvent themselves to adapt to new platforms, new software practices, and ever-tighter budgets. Costly development programs have only too often ended up on a forgotten shelf, and poor marketing has tended to alienate rather than recruit the complementary energies of human practitioners in the overall translation process.

It has taken about 40 years for the MT community to organize itself into an industry body such as the International Association of Machine Translation. Compared with the speed at which more recent technologies such as translation memory or terminology management has surfed on the back of the 1980s PC revolution, MT seems to have been born with feet of clay.

Andrew Joscelyne

A look at machine translation's fitful history at the 50-year mark.

MT has indeed found several successful niches. Many *Language International* readers probably know of the usual suspects—the famous TAUM system used to translate weather bulletins in Canada, Systran's various uses in information-gathering organizations, large administrations such as the European Commission and in certain industries, and the many years of the Pan-American Health Organization's deployment of MT. But it is unlikely that the accumulated might of MT usage has reduced the sum total of translation jobs for human translators by any significant percentage, despite initial fears to the contrary. Until yesterday at least, the MT business was still haunted by a fundamental flaw: it could only offer a costly and partial solution to an industrial market needing a comprehensive, cheap answer to its needs. As such MT seemed condemned to a role as ambulance—helping users with ad hoc problems (an intelligence need, a sudden arms documentation delivery etc.), but never reaching a full-service status in a mature market.

And just yesterday, an even newer paradigm of knowledge management was suddenly unfurled across the planet—the World Wide Web and its associated networks. Now that the online information market has gone global, the language barriers of cyberspace would seem to be custom-designed for MT: while Web surfers need a quick and dirty solution to the problem of accessing information in other languages, the Internet offers MT an ideal platform for peddling its wares. No one really knows how many people use the various MT systems now available on Web sites—and judging by the naturally secretive nature of MT marketers we probably never shall. If MT is to hit the mass market, then here is its golden opportunity.

But once the first flush of multilingual Web surfing has passed, will MT be able to meet growing expectations of quality and speed? The interesting question over the next 50 years will be whether the Web will fall back on other solutions for its translation needs, once a mature public recognizes the immense difficulty of providing real-time language-management solutions. But no doubt there will be plenty of other intergalactic emergencies around for MT to take care of in its usual way.