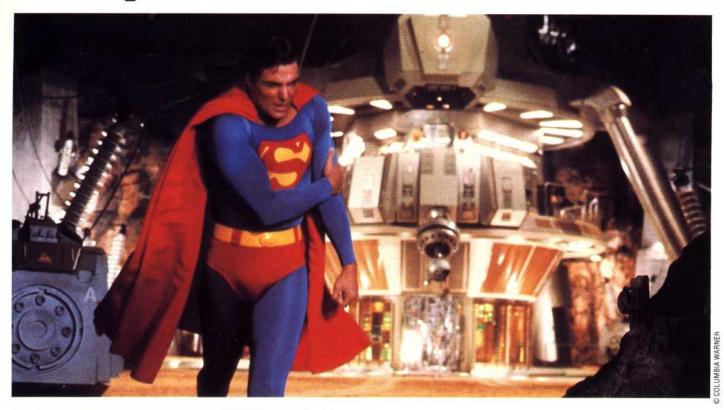# Computer Literate

Computers have featured widely in science fiction. In many cases writers have accurately predicted technologies that we now take for granted

Many scientific and technical achievements have occurred to writers of fiction, or film makers, long before they were actually feasible. Arthur C Clarke, the author of *2001 — A Space Odyssey*, first put forward the idea of geostationary satellites in an article for the magazine *Wireless World* in the early 1950's — almost two decades before they were developed. Similarly, Robert Heinlein's short story, *Waldo*, described remotely-controlled manipulators well before robot hands came into use. In fact, many inventors and development scientists have been inspired by the creative ideas of science fiction writers and film makers.

Fictional computers, however, often bear little resemblance to reality. In the futuristic film *Rollerball*, for example, a computer that has speech-recognising input and voice output takes the form of a cube-shaped tank of liquid. Computers resembling the real thing, of course, tend to be undramatic and less interesting, although they have often been seen in films as a part of the furniture. There can be no doubt that in the 1960's and 1970's, films that featured computers closely modelled on the actual machines helped to educate the general public by

showing what these new, near-mythical 'computers' actually looked like.

Creative imaginations began conjuring up ideas of computers not very long after Charles Babbage (see page 220) began his pioneering work on an Analytical Engine, in the middle years of the 19th century. In 1879, Edward Page Mitchell wrote a story called *The Ablest Man in the World*, which described how a calculating machine was implanted into the brain of an idiot, turning him into a genius. Mitchell's ideas preceded actual scientific advance on many counts. In the first instance, he grappled with the idea of miniaturisation — the computing machine is at once small enough to fit into the idiot's cranium and yet powerful enough to endow him with a superior intellect. Secondly, Mitchell prefigured the idea of interconnecting a computer with the human body. Today, almost a century after the story was written, the techniques to connect simple controllable electromechanical devices to the body's central nervous system are beginning to be perfected.

Generally, few writers have an extensive knowledge of computer architecture, though some are accomplished engineers and many use computers (in the form of word processors) in their work. Yet most can present a convincing picture of intergalactic travel, even though they are not highly qualified astro-physicists or rocketry experts. Similarly, there is no reason why writers cannot speculate on the possible attributes of future generations of computers without

Superman III
Computer fraud is the central theme of the third Superman film. Richard Pryor plays a villain who makes his fortune by stealing a half-cent from every transaction in a bank's computer. This part of the plot is based on several real cases of fraud. The film ends with the destruction of the largest computer in the world, which has been built entirely for criminal purposes