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Developments in expert systems

From a special issue of
The International Journal of Man-Machine Studies

edited by
M.J. Coombs

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Preface

The potential value of automated knowledge-based problem-solvers—or "expert systems"—is now firmly established. Since the building of the first system 15 years ago, several exemplar projects have demonstrated that computer programs are capable of expert performance in diagnostic, interpretive, control and planning tasks within a wide range of domains.

Despite a comfortable number of successful demonstration projects, medicine, industry and commerce have been slow to adopt expert systems for routine use. However, although the reasons for this are complex, a number of factors may be identified. These include the poor "fit" between the tasks undertaken by expert systems in many areas and those performed by a human expert, the opaque reasoning of many systems and the inability of systems to learn from experience. It is issues such as these which are the topics of current research and which are discussed in the chapters of this volume "Developments in Expert Systems".

March, 1984

M. J. Coombs

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