This is a well organized book, and refers to a field of increasing importance. This is brought home in the Preface where the Editor starts by saying: "Expert systems and knowledge-based systems (KBS) now form a market worth annually billions of dollars, yen and ECUs (European Currency Units)." This is certainly a fast developing and already vast field of information science, or perhaps "information technology" is a better name for this aspect of it. It is daunting to think what sort of books will be appearing on the subject in the next decade.

Computers and thought, by M Sharples, David Hogg, C Hutchinson, S Torrance and David Young, MIT Press, Cambridge, MA, pp 401 £22.50 (cloth), £13.95 (paperback).

Reviewed by: Professor FH George, Bureau of Information Science, Seer Green, Bucks, UK.

This book has the subtitle "A Practical Introduction to Artificial Intelligence", and the stated aim of the book is ". . . to introduce people with little or no computing background to artificial intelligence (AI) and cognitive science".

The book itself arose from a 10-week course for first year arts undergraduates at Sussex University which was given the same title as this book. Not surprisingly, the book starts by asking what AI is. The answer is couched in broad terms, and interestingly neither here nor anywhere in the book is the word 'cybernetics' mentioned, although the roots of AI are closely related to cybernetics. AI is seen as having roots in psychology, philosophy and computer science, and having associations with linguistics, mathematics and logic: all of this can be readily agreed. Chapter 1 then picks up the cybernetic issue of "the mind as a machine", and states the assumption that "the human mind acts like a computer". This would seem to be an unhappy way of putting the matter. It would be better to assume that the computer (some "machine") can be made to behave like a human mind. Nonetheless, Chapter 1 gets the reader off to a reasonable start.

The book represents an elementary approach to the subject which is quite appropriate to its use, and the general impression is a good one. Chapter 2 is entitled "Performance without knowledge". Chapter 3 is "Stored Knowledge", Chapter 4 is "Search", and Chapter 5 is on "Natural Language", and this involves a syntactical analysis, as well as an introduction to semantics and pragmatics. Chapter 6 is entitled "Reasoning", and is concerned with logic and semantic networks, and this chapter has an appendix which deals with POP-II and relates inference making with a semantic net. The next chapters follow up the same approach and discuss "Rule-Based Knowledge" (Chapter 7), "Models of Cognition" (Chapter 8), "Computer Vision" (Chapter 9), and then, in the last two chapters, "AI and the Philosophy of Mind" and "Artificial Intelligence"—What Next?".

The book finishes with two appendices and a glossary, the first a POP-II reference guide and the second an automated tourist guide. This provides a listing in POP-II of the answers to a characteristic problem from everyday life, and is well produced. Finally, the glossary of no less than 205 terms which are central to AI is extremely useful. There are times when one wonders whether this introduction to the subject is not a shade too simplistic, but it is not easy for an outsider to decide exactly how the students for which the course was designed were able to digest it; the proof of the pie is in the eating, and we do not know how it "went down". Altogether a well-produced and interesting book that almost certainly meets a particular need.

Perspectives in artificial intelligence–Volume 2: Machine translation by JA Campbell and J Cuena, Ellis Horwood, Chichester, 1989 pp 211, £34.95.

Reviewed by: Professor FH George, Bureau of Information Science, Seer Green, Bucks, UK.

This is the second volume of articles that, with Volume 1, make up the set of papers given at the Conference of Artificial Intelligence (AI) at the Second World Basque Congress in September 1987. The two volumes deal, as the Basque Congress required that they dealt, with viewpoints on basic issues and current research matters.

This volume divides into four parts. The first part is called "Machine Translation", part two is on "Natural Language Programming", part three is "Databases", and finally part four is on