

The Knowledge Engineering Review

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During the last five years knowledge engineering has grown from being a small, speculative and experimental subject to being a well supported, widely promoted commercial activity. It is also in some danger of becoming overheated, florid, and failing to reflect or develop the best results and ideas that Artificial Intelligence has to offer.

Like AI, Knowledge Engineering has acquired its critics. They point to areas where early claims are not being substantiated — areas that many of us know about but are inclined to ignore. We are all aware of the continuing dependence of the field on a handful of early impressive examples, and of the disappointments of development groups trying to apply standard tools to non-standard problems. We are uncomfortably conscious of the difficulties in scaling up from promising prototypes, and the lack of convincing, general methods for knowledge engineering.

We disregard these problems in the secure knowledge that anything new needs time, and that it is not our fault that other people are hyping the subject and creating premature expectations. The editors and publishers of this journal, however, are concerned that a pattern of rapid growth is continuing without much evidence of technical or intellectual consolidation.

Some of the symptoms that we perceive include:

- The lack of foundational work, and what there is of patchy quality.

- A shortage of well written archival and teaching material.

- The term "knowledge engineering" often reflects a superficial view of AI and a preoccupation with old, tired ideas.

- Applications projects frequently suffer from amateurish design and a lack of care in analysing what has and has not been achieved.

The crop of recent new journals in expert systems does not address these problems, but reflects the need for outlets in which to present, even advertise, projects and products. The established AI journals risk diluting their own role in AI by trying to cover knowledge engineering as well.

The Knowledge Engineering Review has been established in the belief that it can contribute to a culture in which applications work contributes to developments in AI as well as exploiting them. It has been published privately by the British Computer Society for the members of the Expert Systems Specialist Group. The positive response to even this modest effort has supported our belief that this kind of material is needed, and suggests that the Review deserves support and a wider audience. Cambridge University Press has enthusiastically agreed to take on its wider publication.

We expect to commission about half of our material. We do not expect to publish project reports or specialised technical papers, and only exceptionally book reviews or conference reports, which we think are already quite well served. We expect to publish material with a rather longer life, that is intended to influence the field as well as report it.

The kinds of article we expect to publish will include:

- Archival papers in the effective style of such publications as Computing Surveys and Annual Reviews.

- Tutorial papers developed through discussion between authors and editors.

- Special issues introducing new concepts from AI and cognitive science.

- Commentary by workers in AI and other fields outside knowledge engineering whose perspective would contribute to the development of the field.

- Methodological papers and empirical studies of engineering techniques, particularly those which contribute to AI itself.

We would be pleased to hear from you if there is additional material you think we should include.

The first volume of the Review will be completed by one further issue after this one. The remaining issues have the support of Cambridge University Press, but the Review will become a full CUP title for the first issue of volume 2. This editorial should be taken as a call for papers for the first and subsequent issues of the second volume. The journal will have an international editorial board, about a third of whom have been appointed. The full composition of the board and detailed instructions for contributors will be published in the final issue of volume 1.

Our aim is not merely to fill a journal but to make a contribution to the intellectual development of knowledge engineering. We hope that you will give the Review your support.

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Enquiries about membership of the Expert Systems Specialist Group and members' subscriptions to the new journal should be addressed to

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