

Preface

The first issue of this volume of the International Journal of Artificial Intelligence in Education is also my last issue as Editor. I have reached the end of my period as Editor-in-Chief, and, while the remaining issues of Volume 19 are inevitably ones that I have been heavily involved with, James Lester takes over as the new Editor-in-Chief from Issue 2. His succession is very good news for the Journal and its readers.

THIS ISSUE

Given these circumstances, I am taking the opportunity to briefly review the Journal's progress over the last six years and, to some extent, the progress of the field of AI in Education. I will finish with a few speculations about where the field might be going. First, let me introduce the papers in this issue.

Li Zhang and his colleagues have been working in the area of drama-based environments for some time. Inspired by ideas on emotion, drama and metaphor amongst others, they have produced an unusual environment which has some exciting features. "E-Drama: Facilitating Online Role-play using an AI Actor and Emotionally Expressive Characters" provides an agent-based approach to helping children express themselves using free text. The challenges that free text input provides are ones that cannot be "solved" in a single research project – but this paper provides an excellent starting point for further work. The potential for education in the Web 2.0 context is evident.

In the next paper, Magnus Haake and Agneta Gulz provide a theoretical framework for examining the design of agents in pedagogic contexts. "A Look at the Roles of Look & Roles in Embodied Pedagogical Agents – A User Preference Perspective" is a valuable contribution both to those studying the ways in which design decisions influence learning outcomes. It is also helpful to those seeking to design an EPA of their own since the reported work provides a high level view of the design issues.

Finally, Stephanie Ann Siler and Kurt VanLehn provide a useful set of studies examining the notion that face to face tutoring is always better than 1-1 synchronous computer mediated tutoring. The paper, "Learning, Interactional, and Motivational Outcomes in One-to-One Synchronous Computer-mediated versus Face-to-Face Tutoring", provides evidence that suggests the advantages of face-to-face communication are not quite as strong as people have believed.

THE PAST

Looking back over the time I have been at the helm of IJAIED, we have published 75 articles (excluding prefaces) occupying 2177 pages in 24 issues. Of these, 31 came from the USA, 14 from UK, 12 from the rest of Europe, 11 from Australasia, 4 from South and Central America and 3 from Canada. A reasonable spread of contributions from around the world. Of course, this pattern of acceptance does not indicate the full range of excellent work being done. There is plenty of research being reported in other journals which, I believe, should appear in IJAIED. I would have liked to have seen many more submissions from a range of European countries including France, Belgium, Germany, the Netherlands and Greece. I would also have liked to have seen more contributions from

THE FUTURE

The question has to be asked: where will researchers in the field of AIED spend their time working? I am sure more effort will be spent on examining the notions of motivation and affect – and how these notions can be deployed in AIED systems. Certainly we need careful attention paid to the foundations of such an approach, and people at Sussex University are working on this issue. No doubt other research groups will wish to be involved in this important work.

Other areas merit attention though it is by no means certain that sufficient work will be done – partly because there may be a feeling that the foci of the field have moved on, or that there is sufficient research in other fields upon which to draw. In my opinion, more work needs to be done in the areas of evaluation, adaptive assessment and research methodology. While there may be some truth in this there is also a concern: that the involvement of the AIED community in adaptive systems does not need to be concerned with debates in education, the social sciences and psychology on hybrid methods for evaluation, alternative methods of assessment and tackling the problem of generating persuasive evidence in authentic, real world situations.

Some areas that, in my opinion, just must grow in importance include work on ontologies – e.g. there is a place for arguing/negotiating ontological structures, and I do not believe that the last word has been written on this one! Also, on a connected point, we need to see mature research on the use of AIED notions in Web 2.0 contexts. This is an urgent issue.

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Paul Brna