

Editorial

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With this edition of *Education and Information Technologies* we are pleased to include two articles which were presented at IFIP (International Federation for Information Processing) conferences this Summer. The first written by Toni Downes, is from the TC3 (Technical Committee on Education) Working Conference held at the beginning of July 1996 in Israel, and organised jointly by Working Groups 3.1 and 3.5. Entitled 'Information Technology: supporting change through Teacher Education' the discussion at the conference revolved around the changes needed in pedagogy as well as in IT usage. Much time was spent on discussing professional development, the limitations of assisted, hardware-purchase schemes for schools, and what role should the internet play in education. On this last point it was felt that many politicians and service providers are presenting unrealistic images of its use in education. The full set of forty-three papers are included in the post-conference proceedings, which are also published by Chapman and Hall (ISBN 0 41 279760 7). The second article is taken from the TC3 conference on 'Information Technology in Educational Management' which was held in Hong Kong at the end of July. This area of education and information technologies is one that TC3 is currently addressing and the article written by Phil Wild and Alex Fung is both a useful starting point and also a provoking reminder of the issues involved in this area. Again all conference papers are available in the conference proceedings published by Chapman and Hall. (ISBN 0 41 279970 7).

However, articles for this TC3 journal are not restricted to IFIP members. The Editors and the Editorial Board would welcome papers that relate to the broad domain of 'Education and Information Technologies'. That is, applications of information technology from the micro-level, in terms of specific software

applications and environments, to the macro-level, in terms of national implementations and experience. Papers that describe applications relating to schools, professional and vocational education and to higher education. Those that reflect the perspectives of decision makers and administrators in all sectors of education as well as software designers and researchers. While such a mix may seem overly ambitious, it is, in fact, no larger than the field and the technology under IFIP's 'Technical Committee for Education'. Further details on the submission of papers for international review can be found at the Chapman and Hall web site:

www.thomson.com:8866/ei.html
or www.thomson.com:8866/online.html

IFIP Technical Group for Education (TC3) has six Working Groups and through these it brings together professionals in many different domains of education: in teacher education, in curriculum and instruction for elementary and secondary education, in administration and policy making, in computer science education at the secondary and higher-education levels, in research and in the application domain of distance education. IFIP, more than any other professional association, brings together professionals at all levels of education, from teacher to educational software developer, from national policy maker to informatics instructor, in a collegial interactive relationship. Membership in IFIP working groups is restricted; only those meeting high standards of experience and professionalism as well as having an international orientation can meet the various qualification requirements.

Throughout its history, IFIP TC3 has stimulated the exchange of ideas and experiences throughout its own membership and throughout the larger educational community through the familiar strategies of regular congresses and conferences and through the production of high-quality books and briefing documents for international agencies and commissions. Now IFIP TC3 has its own professional journal which is fully international in its orientation and broad in its scope. As in IFIP TC3, the common denominator of interest in the journal is the application of information technologies in educational practice.

It should be clear that IFIP's strength lies both in its broad spectrum of highly experienced educational representation and in its internationalism. IFIP is not a national association of any one country; it is international in its every aspect. Those in IFIP are keenly aware of the value of learning from the experience of colleagues in other countries and cultures; of not seeing the world through the optic of any one setting or orientation; of respecting the options chosen by others; and of continually being struck by the universality of key educational issues and insights even while making note of the differences in approaches within cultures and systems.

The articles in this issue of *Education & Information Technologies* are directly reflective of the broad range of IFIP TC3's professional domain. The following listing provides the author and title, the country of origin, a brief note about content, and an indication of the relationship of the article to the various working groups of IFIP TC3:

- (1) Downes, T. *The computer as a toy and tool in the home: implications for schools and teachers*, Australia.

This exciting paper presents the findings of a recent research project into children's access to and use of computers in their homes involving over four hundred elementary school children from a variety of backgrounds in Sydney. Significant themes that emerged from the discussion included issues of equity and access, the variety of use of computers, the ways children learn to use them in their homes and children's perceptions of differences between computing at home and at school. Each of these themes is discussed in terms of the implications for schools and teachers.

This article relates most closely to WG 3.5 (Elementary) and to WG 3.1 (Secondary) in its interest in home, teachers and schools, but the applications of the work may well be relevant to all levels and methods of learning.

- (2) Fuji, T., Tanigawa, T., Inui, M. and Saegusa, T. *CAMELOT: collaborative and multimedia environment for learners on teams*, Japan.

In this paper, the basic framework of the collaborative learning system, CAMELOT, is described showing how each student learns to analyse through case studies and through problem solving in collaboration with others. It shows how learners come to a deeper understanding after using CAMELOT than from studying independently because they can reach better solutions through discussion and advice and from seeing the work of other learners.

This article is most directly relevant to IFIP TC3 Working Group 3.2, (Higher Education), but is also applicable to the development of learning materials and to WG 3.3 (Research).

- (3) Zhang, S. and Fulford, C.P. *Two-way & One-way Video: when is 'no difference' significant in distance education?*, USA.

This paper reports on the differing student attitudes of learners located at sites with and without video feedback to the instructors. Findings are related to instructional characteristics and system improvement priorities and how feedback may be adequately rectified to justify a wider use of interactive TV instruction.

This article is most directly relevant to IFIP TC3 Working Group 3.6, (Distance Education), but also applicable to the teaching of informatics in higher education and in secondary schools (WG 3.2 and 3.1).

- (4) Wild, P. and Fung, A. *Evaluation of IT in Educational Management for proactive development*, United Kingdom and Hong Kong.

As hardware, software and the needs of users develop and change, the evaluation of information technology in education management will need to be both proactive and dynamic. If it is to be the key to effective and efficient implementation, it must continually inform how the systems need to be

modified to allow the potential to be fully realised. Dynamic evaluation can then be used to inform the system design, training, support and documentation to ensure end-user acceptance of the systems and provide administration support and information relevant to enhanced decision making processes. The paper reports on the findings from a preliminary study of the Hong Kong School Administration and Management System (SAMS) and illustrates the problems which can occur without carefully planned and contextualised evaluation.

This article relates most closely to WG 3.1 (Secondary) and to WG 3.5 (Elementary) in its interest in School Administration, but the work it describes is relevant to WG 3.3 (Research) and to WG 3.4 (Professional and Vocational Education).

- (5) Quinn, C. *Designing an instructional game: reflections on 'Quest for Independence'*, Australia.

Faced with the unusual instructional goal of training independent-living skills, an unusual target population of low-literacy youth, and hardware limitations of lowest-common-denominator microcomputers, this paper describes how the University of New South Wales developed a computer-based simulation game called '*Quest for Independence*'. It discusses the approach, the resulting game, and the current status.

This article relates most directly to IFIP TC3 WG 3.4 (Professional and Vocational) in its focus on continuing education but is very relevant to WG 3.1 (Secondary) and to WG 3.5 (Elementary). Those doing research in this area will also find it of interest as will those working in Higher Education.

Hopefully readers will feel that we have again managed to include a broad range of articles, each written by specialists, that reflect the extensive area of IFIP TC3. In the future we would like to print your comments and provide further discussion on the articles published. If you are doing similar research or have experiences relevant to a particular paper then please write to one of the co-editors. This, of course, is in addition to submitting your own article for publication in this international refereed journal.