



FUTURE INTERFACES 2

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Editorial Preface

Psychology is a very young journal, but is developing rapidly. Each successive number attracts broader interest, both in terms of the span of approaches contributed and the geographical origin of contributors and, presumably, readers. This is exactly how it should be. Psychology is an electronic-only journal, which permits more rapid and flexible editorial approaches than are possible with traditional print-based publications. But Psychology is also a serious journal, with peer reviews of articles, professional presentation, and full archival status. So, young and yet serious: much like the field the journal covers, the evolving relationship between people and ICT (information and communication technology). Both sides of this relationship impact on the other. Technologies must be designed, or evolve, in ways that match the capabilities and limitations of the people who use them. On the other hand, technology changes people; in fact it could be argued that without ICT, understood in its widest sense, people wouldn't be people. While this has always been the case, the rapid pace of technological innovation makes the changes to people brought by technological advances vastly more salient than in earlier times.

The target topic for this issue of Psychology, Future Interfaces, puts the focus firmly on the potential changes to everyday life that new ICT will bring to us. As the Call for Papers indicated, a clear trend is to design and develop technologies for specific purposes, needs and situations, such as mobility, group collaboration, disability, age, and so on. And of course another trend, as exemplified by this journal, is towards virtualisation; not only of information, but also of processes, organizations and activity patterns. The call produced a rich

response in the form of a large set of submitted papers from around the world, on a diverse range of topics highly relevant to the theme of the issue. So much so that accepted papers had to be distributed over two issues; in issues three and four you will find a total of 10 papers on the special theme of Future Interfaces, and 3 papers of more general interest, from Finland, France, Germany, Italy, Japan, Spain, Sweden and the UK.

Issue number four includes the second group of papers in response to the call along with a paper of general interest. A common thread in discussions of future interactions is the role of the body, and its relationship to information and the mind. Two contributions appearing in issue number three addressed these aspects (Waterworth and al.; Fukuda and Bubb). Directly interfacing the brain to the computer takes us a step further. *Beverina et al.* in this issue describe how Brain Computer Interfaces (BCIs) provide a new communication option for those suffering from neuromuscular impairment. By using data from electrodes placed on the scalp, it is possible for users mentally to control events at the interface. In principle, this is similar to work that has enabled monkeys to control mechanical limbs. The great advantage is that, unlike that work, this does not involve implanting electrodes in the brain. The drawback is the need for a high level of conscious attention from users. The authors suggest that more vivid and emotionally engaging interactions, using virtual reality and competition between users to elicit involvement and surprise, can enhance overall performance. This is in principle easy to do, but will take imagination and flair on the part of designers. *Lessiter et al.* describe work on a relatively down-to-earth topic, the design of remote controls for digital terrestrial television. They provide a

very useful and detailed account of usability methods to assess different designs of control, but the approach can be applied to a wide range of interactive media products and services. *Gamberini et al.* present a review paper on affective interfaces showing the attempts so far at interfacing computers with human emotional states.

Namatame et al. present a case study of webpage design for the hearing impaired. Using data on operation flow, length of stay, and eye and mouse movements, they identified two types of hearing-impaired users, those who are primarily text-oriented and those who are more picture-oriented. This is important work that has the potential to expand current guidelines for the design of webpages for the hearing impaired. The paper by *Jastrzebska-Fraczek and Bubb* describes EKIDES, a general design tool, based on a database of ergonomic guidelines, for reference and evaluation of work places and products. *Breite and Vanharnta* studied students attempting to set up and manage a virtual company by means of collaboration.

These twin issues are closed by an invited contribution of general interest by Waterworth. The paper suggests that the trend towards virtual realization of information provides the potential for designing computer-supported creative spaces, based on examples from music tuition and surgery planning.

It has been a great pleasure for me to serve as Guest Editor of these two themed issues of Psychology journal. The collection of papers in this and the preceding issue provide clear and fascinating pointers towards Future Interfaces.

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