The Impact of Electronic Publishing on the Academic Community

Preface

Ian Butterworth

We are today at the start of a revolutionary change in the way knowledge is transferred and preserved. For five centuries the main medium for recording and transferring Man's assembled knowledge has been the printed page. All that is changing under the impact of IT (information technology).

The application of IT to the transfer of knowledge is proceeding at a speed with which the academic community is completely unfamiliar. By the year 2000, probably 50 million people will be on the Internet. The World Wide Web was first announced by CERN (the European Organization for Nuclear Research) only in 1991 and two years ago few people had heard of it. In May 1994 the Yahoo database identified 1,600 Web servers, by January 1996 there were 100,000 Websites, by the end of December 1996 there were 300,000.

IT is affecting all aspects of academic activity whether it be in research, scholarship or education. At the same time, the handling of information in digital form is leading to a convergence of the technologies of computing, networking systems, telecommunications, data storage and consumer electronics which are merging, since they can all be regarded as the manipulation of bits of digital information. Because of this convergence, major commercial corporations and consortia of corporations are being established to own, distribute, deliver and modify information. A major revolution is taking place on how knowledge is being held and by whom. In the past, the main guardian of knowledge has been academia, with its related institutions of the universities, the libraries, learned societies, scholarly publishers, etc. but that responsibility is rapidly being transferred to others --- yet the voice of academia is hardly being heard in this process.

The Academia Europaea therefore decided that it would be particularly timely to establish a Workshop on the impact of electronic publishing on the academic community. The Wenner-Gren Foundation generously agreed to support the Workshop which took place at the Wenner-Gren Center in Stockholm on 17--20 April 1997. Additional support by the European Science Foundation allowed us to somewhat increase the number of participants at the Workshop.

The Working Group which organized the Workshop for planning purposes decided to focus on the subject from three viewpoints: the preservation of academic material, past, current and future; access to such material in digital form; and quality issues including peer refereeing, authentication, etc. However, the Workshop was divided into seven working sessions:
1. The present situation and the likely future;
2. Legal and ethical issues;
3. The content and quality of academic communication;
4. Social and cultural issues;
5. Digital libraries;
6. Archiving and accessibility;
7. Access to scientific data repositories.

Members of the Working Group organized and chaired the working sessions. In view of the subject matter, we felt it appropriate to establish a Website where participants could deposit contributions to the discussions prior to the meeting and to have an associated e-mail 'news group'.

Some 80 people participated in the Workshop and this report is a written account of the meeting. It is structured along the lines of the actual sessions with some re-ordering to ease reading and taking note of the material deposited on the Website.

All of us who attended the Workshop found it an enjoyable and useful occasion organized in an exemplary manner by the Wenner-Gren Center and we would like to record our gratitude to its Director, Torvard Laurent and to Gun Lennerstrand who ensured that everything went like clockwork. We would also like to thank Stig Strömholm, Vice Chancellor of Uppsala University (and President of the Academia), for the warm and generous welcome given to the participants on their visit to his beautiful city and university.

Footnote:
1 I use the acronym IT but the less common ICT for information and communication technology would be a better usage and is increasingly common in European Commission documents.