

ELECTRONIC PUBLISHING IN SCIENCE - WHERE ARE WE NOW?

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Introduction

"The information content sector will be very important for the future information society... It is necessary to develop the information services sector extensively" European Council of Ministers Resolution, 7th November 1995.

The progress of information and communication technologies over the past years is undeniable. Today, over 25% of offices in the European Union and 15% of homes are equipped with computers. Data networks span the globe. Scientists, engineers and businesses now have tools at their disposal to circulate data very quickly to worldwide audiences. This potential has far-reaching implications, not only for science publishing but for research, innovation and the economy in general. The 1995 G-7 Summit on the Information Society made clear links between the emerging information highways and economic competitiveness, job creation and quality of life.

There are three main driving forces behind this progress. The first is computing power. This has, according to Microsoft, made the equivalent of a million-fold improvement in the last 20 years, due to the improving price/performance ratio¹. The second force, data communications and networking, has become commonplace in the same time-frame. The third factor, often underestimated, is information content. Scholarly literature alone doubles every ten to fifteen years. A vast proportion of this literature is now being generated in or converted to electronic form every day, stimulating the progress and acceptance of technology-mediated communications.

What kinds of changes are being wrought in the publishing and information industries? Some of the main trends can be characterised as follows:

- from conduit to content. Less emphasis is being placed on technology and more on information products and services.
- from scribe to screen. Authors are generating more and more material - not just text, but increasingly multimedia, electronically.

