

INFORMATION SOCIETY TECHNOLOGIES  
(IST)  
PROGRAMME

Project IST-2001-37057 MKMNet

**Deliverable 1.4:**  
**Final Report and Recommendations:**  
**Metadata, Copyright and Intellectual Property**

J.H. Davenport (University of Bath)  
J.A. Padget (University of Bath)

Project Acronym: MKMNet  
Proposal/Contract no.: IST-2001-37057 MKMNet

## Preface

This deliverable relates to workpackage 1 of the project: copyright and IPR. We survey the previous deliverables, and make what recommendations we can in the light of the lack of progress on rights management in the wider world.

The premises behind Deliverable 1.3 were that:

- (a) Development of an original rights management model for mathematical documents software was pointless, because in coming from such a specialised domain, the likelihood of widespread up-take was minimal and so the effort would be wasted.
- (b) Development of rights management technology in those industries it was believed were most motivated to find solutions, namely music and film, would result in a model that could be adopted and possibly adapted for the needs of mathematical documents and software.

As we now know, those industries have preferred the use of weak encryption and litigation to date and a viable rights managements system is still awaited.

## 1 Previous Deliverables

It was intended that there should be three deliverables in this work package.

**D1.1 Initial report on practice.** This surveyed what we could discover on existing practice in copyright. The conclusions were rather more pessimistic that we had expected.

The current situation of copyright in the various objects of interest to mathematicians is complicated, varies from country to country, and indeed sometimes from employer to employer, and is evolving, both in practice and legally. It is to be hoped that the forthcoming EU Copyright Directive will reduce the variation within the EU, but it would be optimistic to expect too much from this given also the variations between employers and legal systems.

We see little new evidence to change this conclusion, though we do note growing interest in institutional self-archiving<sup>1</sup>. However, a pilot project at the University of Bath has revealed that many mathematicians ask: “why my University rather than the world of mathematics<sup>2</sup>” — the scholarly jury is still out on this question. Furthermore, it is to be noted that within the U.K., the Research Councils are placing more emphasis on institutional responsibility for archiving<sup>3</sup>.

**D1.2 Technologies for Rights Management.** At the inception of MKM, there was, in the internet community, a great deal of interest in the area of “Intellectual Property Protection” — so-called IPP. There was a strong view at the time, boosted by the U.S.’s Digital Millenium Copyright Act, that this would be done by cryptographic-based “Digital Rights Management” techniques — so-called DRM. Similarly, there was a strong perception that the music industry, badly hurt by Napster and its equivalents, would develop such technology. However, as reported in D1.2, this has largely not happened, and, as has been well-publicised<sup>4</sup>, the music industry has resorted largely to litigation rather than technology. However, the recent arrival of sites such as Apple’s *iTunes*<sup>5</sup> indicates that there may be a shift in this area, and the U.K. Government has commissioned a study into Digital Rights Management<sup>6</sup>. However, the bottom

---

<sup>1</sup>[www.oaforum.org](http://www.oaforum.org).

<sup>2</sup>Meaning the ex-Los Alamos archive at [math@arXiv.org](mailto:math@arXiv.org).

<sup>3</sup><http://www.epsrc.ac.uk/website/commonpages/downloads.aspx?CID=7487&ZoneID=3&MenuID=1643>.

<sup>4</sup><http://observer.guardian.co.uk/comment/story/0,6903,1134522,00.html>.

<sup>5</sup>However, it should be noted that such sites currently use proprietary technology, which does not fit comfortably with MKM.

<sup>6</sup>Alan Robiette: private communication.

line is that there is nothing substantial to report in the time-frame of this project, though mathematicians will still have to “watch this space”.

**D1.3 Report on Metadata for MKM.** It became obvious during the evolution of this project, especially at the Rome meeting, that this deliverable and D5.2 were heavily overlapping, hence the work has been consolidated under D5.2. We note with approval the comments in D5.2 that there is much metadata that is not specific to mathematics (and this would increase under any digital rights management scheme), and so the community must be alert to external developments and pressures.

## **2 Recommendations**

The basic recommendation is to wait and see, because while there is much awareness of the problem, and much discussion, there is little consensus on actions and solutions, and much more work is required in respect of the issues of:

- Ownership of copyright — see D1.1.
- Trends in self-archiving — see above under D1.1.
- Future developments in digital rights management — see D1.2 and our comments above.

## **End of Report**