
**Information technology —
Specification of DRM technology for
digital publications —**

**Part 1:
Overview of copyright protection
technologies in use in the publishing
industry**





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Foreword

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Introduction

Ever since digital publications have grown in popularity, copyright protection has been an important issue for authors and publishers.

While the distribution of digital publications around the world is mostly based on the open EPUB standard, most retailers are using proprietary technologies to enforce usage constraints on digital publications in order to impede oversharing of copyrighted content. The high level of interoperability and accessibility gained by the use of a standard publishing format is therefore cancelled by the use of proprietary and closed technologies: digital publications are only readable on specific devices or reading applications (a retailer "locked-in" syndrome); digital publications may not be accessed anymore if the distributor which protected the publication goes out of business or if the DRM technology evolves drastically. As a result, users are deprived of any control over their digital publications.

In reaction to these hindrances, watermarking and fingerprinting technologies have also been developed for digital publications. These are sometimes called "social DRM" which is a good way to describe the effect of the visible marks embedded into the content. Thanks to their presence and the personal information they contain, the "licensee" cares about the use of the content he/she has acquired: one would not like to see content associated with one's personal information freely shared on the web. But the term "social DRM" is misleading also, as watermarking and fingerprinting techniques do not enforce technical control on the use of digital media.

Requirements related to security levels differ depending on which part of the digital publishing market is addressed. Many trade publishers, in different countries, are satisfied with a protection based on watermarking; but in many other situations, publishers require a solution which technically enforces the digital rights they provide to their users. This is where DRM technologies come into play.

In most use cases, publishers are happy to adopt a DRM solution which guarantees an easy transfer of publications between devices and a certain level of fair-use, and provides permanent access to the publications acquired by their customers. However, in certain use cases, publishers require a stronger protection measure, which limits the capability for users to transfer publications from one device to another.