TECHNICAL SPECIFICATION

ISO/IEC TS 23078-1

First edition
2020-09

Information technology — Specification of DRM technology for digital publications —

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

iTeh Standards
(https://standards.iteh.ai)
Document Preview

ISO/IEC TS 23078-1:2020
https://standards.iteh.ai/catalog/standards/iso/ee894175-90e2-4f7f-9dc5-7be3193672c3/iso-iec-ts-23078-1-2020

Reference number
ISO/IEC TS 23078-1:2020(E)

© ISO/IEC 2020

iTeh Standards
(https://standards.iteh.ai)
Document Preview

ISO/IEC TS 23078-1:2020
https://standards.iteh.ai/catalog/standards/iso/ee894175-90e2-4f7f-9dc5-7be3193672c3/iso-iec-ts-23078-1-2020

COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

 © ISO/IEC 2020 – All rights reserved

Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Abbreviated terms **2**
5 DRM free protection **2**
5.1 General 2
5.2 Fingerprinting 2
5.3 Watermarking 2
6 DRM protection **3**
6.1 General 3
6.2 User key-based protection 3
6.2.1 General 3
6.2.2 Requirements from publishers and distributors 4
6.2.3 Requirements from users 4
6.3 Device key-based protection 5
6.3.1 General 5
6.3.2 Requirements from publishers and distributors 5
6.3.3 Requirements from users 5
Bibliography **6**

iTeh Standards
(https://standards.iteh.ai)
Document Preview
ISO/IEC TS 23078-1:2020
https://standards.iteh.ai/catalog/standards/iso/ee894175-90e2-4f7f-9dc5-7be3193672c3/iso-iec-ts-23078-1-2020

© ISO/IEC 2020 – All rights reserved

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see http://patents.iec.ch).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

iTeh Standards
(https://standards.iteh.ai)
Document Preview

This document was prepared by Joint Technical Committee ISO/IEC JTC1, *Information technology,* Subcommittee SC 34*, Document description and processing languages*.

A list of all parts in the ISO/IEC TS 23078 series can be found on the ISO website.

ISO/IEC TS 23078-1:2020
https://standards.iteh.ai/catalog/standards/iso/e894175-90e2-4f7f-9de5-7bc3193672c3/iso-iec-ts-23078-1-2020

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

© ISO/IEC 2020 – All rights reserved

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.

iTeh Standards
(https://standards.iteh.ai)
Document Preview
ISO/IEC TS 23078-1:2020
https://standards.iteh.ai/catalog/standards/iso/ee894175-90e2-4f7f-9dc5-7be3193672c3/iso-iec-ts-23078-1-2020

© ISO/IEC 2020 – All rights reserved

iTeh Standards
(https://standards.iteh.ai)
Document Preview

ISO/IEC TS 23078-1:2020
https://standards.iteh.ai/catalog/standards/iso/ee894175-90e2-4f7f-9dc5-7be3193672c3/iso-iec-ts-23078-1-2020