भारतीय मानक
Indian Standard

IS/ISO/IEC 23761 : 2021

डिजिटल प्रकाशन – ईपीयूबी अभिगम्यता – ईपीयूबी प्रकाशनों के लिए समनुरूप और खोजे जाने योग्य अपेक्षाएं

Digital Publishing — EPUB Accessibility — Conformance and Discoverability Requirements for EPUB Publications

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NATIONAL FOREWORD

This Indian Standard which is identical with ISO/IEC 23761 : 2021 'Digital publishing — EPUB accessibility — Conformance and discoverability requirements for EPUB publications' issued by International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) jointly was adopted by the Bureau of Indian Standards on the recommendations of the Data Management System Sectional Committee, LITD 15, and approval of the Electronics and Information Technology Division Council.

The text of ISO/IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which the Indian Standard also exists. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendment .The corresponding Indian Standard which is to be substituted in its respective place is listed below along with its degree of equivalence for the edition indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO/IEC 23736-2 Information technology — Digital publishing — EPUB 3.0.1 — Part 2: Publications	IS/ISO/IEC 23736-2 Information technology — Digital publishing — EPUB 3.0.1: Part 2 Publications (*under prepration*)	Identical with ISO/IEC 23736-2 : 2020

The technical committee has reviewed the provisions of following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendment:

International Standards	*Title*
ISO 15836-2	Information and documentation — The Dublin Core metadata element set — Part 2: DCMI Properties and classes
ISO/IEC 40500	Information technology — W3C Web Content Accessibility Guidelines (WCAG)2.0
RFC 3987	Internationalized Resource Identifiers (IRIs). M Duerst, et al. January 2005. Available at https://tools.ietf.org/html/rfc3987

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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Introduction

This document, EPUB accessibility, addresses two key needs in the EPUB® ecosystem:

— discoverability of the accessible qualities of EPUB publications;

— evaluation and certification of accessible EPUB publications.

The provision of accessibility metadata facilitates informed decisions about the usability of an EPUB publication. Consumers can review the qualities of the content and decide whether an EPUB publication is appropriate for their needs, regardless of whether it meets the bar of being certified broadly accessible. At a minimum, all EPUB publications that conform to this document meet the accessibility metadata requirements described in Clause 6.

Although it has always been possible to create EPUB publications with a high degree of accessibility, this document also sets formal requirements for content to be certified as accessible. These requirements provide authors a clear set of guidelines to evaluate their content against and allow certification of quality. An accessible EPUB publication is one that meets the accessibility requirements as described in Clause 7.

The document also establishes how to identify content that is optimized for specific user needs so cannot meet broad accessibility requirements. The requirements for optimized publications are described in Clause 8.

This document does not target a single version of EPUB. It is designed to be applicable to EPUB publications that conform to any version or profile (e.g. EPUB 2[5] or ISO/IEC 23736-1), including future versions of the standard.

Ideally, these guidelines will be instructive in evaluating any digital publication built on Open Web technologies, although ensuring such application is outside the scope of this document.

NOTE For additional background on the decisions that went into this document, refer to EPUB Accessibility Frequently Asked Questions[6].

Indian Standard

DIGITAL PUBLISHING — EPUB ACCESSIBILITY — CONFORMANCE AND DISCOVERABILITY REQUIREMENTS FOR EPUB PUBLICATION

1 Scope

This document specifies content conformance requirements for verifying the accessibility of EPUB publications. It also specifies accessibility metadata requirements for the discoverability of EPUB publications.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 15836-2, *Information and documentation — The Dublin Core metadata element set — Part 2: DCMI Properties and classes*

ISO/IEC 23736-2, *Information technology — Digital publishing — EPUB 3.0.1 — Part 2: Publications*

ISO/IEC 40500, *Information technology — W3C Web Content Accessibility Guidelines (WCAG) 2.0*

RFC 3987, Internationalized Resource Identifiers (IRIs). M Duerst, et al. January 2005. Available at https://tools.ietf.org/html/rfc3987

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 23736-2 and ISO/IEC 40500 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Success techniques

This document takes an abstract approach to the accessibility requirements for EPUB publications, similar to how WCAG 2.0 (ISO/IEC 40500) separates its accessibility guidelines from the techniques to achieve them. This approach allows the guidelines to remain stable even as the format evolves.

To facilitate this approach, the companion EPUB Accessibility Techniques[7] document outlines conformance techniques. These techniques explain how to meet the requirements of this document for different versions of EPUB.

5 Application to older versions

This document is designed to be applicable to any EPUB publication, even if the content conforms to an older version of EPUB that does not refer to this document (e.g. EPUB 2[5]).

Authors of such EPUB publications are encouraged to create content in conformance with the accessibility and discoverability requirements of this document. Upgrading to the latest version of EPUB to get access to the most advanced accessibility features and techniques is also encouraged.

6 Discoverability

6.1 General

Unlike web pages, EPUB publications are designed to be distributed through many channels for personal consumption — a model that has made EPUB a successful format for ebooks and other types of digital publications. A consequence of this model, however, is that specific details about the accessibility of a publication need to travel with it.

An online bookstore aggregating content from publishers and authors, for example, does not know the production quality that went into each submission unless the publisher informs them through metadata.

Ensuring that the accessible qualities of an EPUB publication can be discovered by any interested party is therefore a primary concern. Users need to be able to gauge the usability of an EPUB publication when they purchase, borrow or otherwise obtain it, a determination that requires knowing the affordances made to meet the accessibility requirements.

Similarly, content that does not meet the accessibility requirements of this document does not necessarily fail to meet the needs of individual users.

Only through the provision of rich metadata can a user decide if the content is suitable for them.

6.2 Package metadata

All EPUB publications shall include accessibility metadata in the package document that exposes their accessible properties, regardless of whether the publications also meet the accessibility (Clause 7) or optimization (Clause 8) requirements.

EPUB publications shall include the following accessibility metadata:

— Access modes — a human sensory perceptual system or cognitive faculty necessary to process or perceive the content (e.g. textual, visual, auditory, tactile).

— Accessibility features — features and adaptations that contribute to the overall accessibility of the content (e.g. alternative text, extended descriptions, captions).

— Accessibility hazards — any potential hazards that the content presents (e.g. flashing, motion simulation, sound).

— Accessibility summary — a human-readable summary of the overall accessibility, which includes a description of any known deficiencies (e.g. lack of extended descriptions, specific hazards).

EPUB publications should include the following accessibility metadata:

— Sufficient access modes — a set of one or more access modes sufficient to consume the content without significant loss of information. An EPUB publication can have more than one set of sufficient access modes for its consumption depending on the types of content it includes (i.e. unlike access modes, this property takes into account any affordances for content that is not broadly accessible, such as the inclusion of transcripts for audio content).

EPUB publications may include the following accessibility metadata:

— Accessibility application programming interfaces (APIs) — to indicate the resource is compatible with the specified accessibility API. This property is typically only used to indicate that the use of scripting in an EPUB publication follows Accessible Rich Internet Applications (WAI-ARIA) 1.1[3]

authoring practices, as compatibility with operating system accessibility APIs is a concern for reading systems.

— Accessibility controls — input methods that can be used to access the content (e.g. keyboard, mouse).

Authors may include additional accessibility metadata not specified in this subclause.

NOTE See Discovery Metadata Techniques in EPUB Accessibility Techniques[7] for more information on these properties and how to include them in different versions of EPUB. See also DIST-002: Include accessibility metadata in distribution records in EPUB Accessibility Techniques[7] for more information on including accessibility metadata in other formats.

6.3 Linked metadata records

Accessibility metadata can also be included in linked records (see ISO/IEC 23736-2) (i.e. metadata records referenced from `link` elements), but the inclusion of such metadata solely in a linked record does not satisfy the discoverability requirements of this document.

7 Accessible publications

7.1 General

EPUB is built on the Open Web Platform, with HTML, CSS, JavaScript and SVG, the core technologies used for content authoring. The use of these technologies means that EPUB publications can be authored with a high degree of accessibility simply through the proper application of established web accessibility techniques.

The primary source for the production of accessible web content is the W3C Web Content Accessibility Guidelines (WCAG) 2.0 (ISO/IEC 40500). This document leverages the extensive work done in WCAG 2.0 to establish benchmarks for accessible content, and the same four high-level content principles — perceivable, operable, understandable and robust — are central to creating EPUB publications that are accessible.

This clause defines how to apply the conformance criteria defined in WCAG 2.0 and addresses qualities unique to EPUB publications.

EPUB publications authored to comply with the requirements in this clause will have a high degree of accessibility for users with a wide variety of reading needs and preferences.

7.2 Relationship to WCAG

WCAG 2.0 (ISO/IEC 40500) and its associated techniques (WCAG 2.0 techniques) provide extensive coverage of issues and solutions for web content accessibility — from tables to embedded multimedia to rich semantics. They represent the foundation that this document builds upon.

This document does not repeat the requirements or techniques introduced in those documents, as it risks breaking compatibility between the two standards (e.g. putting guidance out of sync, or in conflict). At the same time, although the requirements are not individually called out, it does not diminish their importance in creating EPUB publications that are accessible.

This document instead defines how to apply WCAG 2.0 to an EPUB publication — which is a collection of web documents as opposed to a single page (7.3.2.1) — and adds an additional set of requirements (7.4). These requirements are no more or less important than those covered in WCAG 2.0; they are simply necessary to follow for EPUB publications. (The relationship to WCAG 2.0 is explained for each requirement in its respective subclause.)

The same is true of the techniques in the EPUB Accessibility Techniques[7] document. It provides coverage of techniques that are unique to EPUB publications, or that need clarification in the context of an EPUB publication. It does not mean that the rest of the WCAG techniques are not applicable.

As a result, although this clause can be read without deep knowledge of WCAG 2.0 conformance, to implement the accessibility requirements of this document will require an understanding of WCAG 2.0.

Because this document adds requirements that are not a part of WCAG 2.0, an EPUB publication can conform to WCAG 2.0 without conforming to this document.

7.3 WCAG conformance

7.3.1 WCAG conformance requirements

EPUB publications shall meet WCAG 2.0 Level A (ISO/IEC 40500) to be conformant with this document, but it is recommended that they meet Level AA.

NOTE Although this document only requires Level A conformance, local and national laws can influence the level of conformance an EPUB publication has to meet to be considered accessible. Level AA conformance is often cited as the benchmark for accessibility in legal frameworks and policies, for example. Additionally, any procurer or distributor of EPUB publications can demand higher conformance requirements than the baseline defined here.

7.3.2 Evaluating WCAG conformance

7.3.2.1 Page and publication

The WCAG 2.0 principles focus on the evaluation of individual web pages, but an EPUB publication more closely resembles what WCAG 2.0 refers to as a set of web pages: "[a] collection of Web pages that share a common purpose" (ISO/IEC 40500).

Consequently, when evaluating the accessibility of an EPUB publication, individual pages — or content documents, as they are known in EPUB 3 — cannot be reviewed in isolation. Rather, their overall accessibility as parts of a larger work also shall be evaluated.

For example, it is not sufficient for individual EPUB content documents to have a logical reading order if the publication presents them in the wrong order. Likewise, including a title for every EPUB content document is complementary to providing a title for the publication: the overall accessibility is affected if either is missing.

The WCAG 2.0 guidelines for content to be perceivable, operable, understandable and robust therefore shall be evaluated against the full EPUB publication, not only to each content document within it.

More information about applying these guidelines to EPUB publications is available in the EPUB Accessibility Techniques[7].

7.3.2.2 Applying the conformance criteria

When evaluating an EPUB publication, the WCAG 2.0 conformance criteria (ISO/IEC 40500) are applied as follows:

— When determining compliance with a conformance level, the EPUB publication as a whole shall meet the conformance requirements of the level claimed.

— Authors shall not use EPUB's fallback mechanisms to provide a conforming alternate version, as there is no reliable way for users to access such fallbacks. If fallbacks are used, both the primary content and its fallback(s) shall meet the requirements for the conformance level claimed. EPUB-specific fallback mechanisms include manifest fallbacks, bindings and content switching via the `epub:switch` element.

— When determining compliance with the "Full Pages" requirement (i.e. that parts of a page cannot be excluded when making a conformance claim), the entirety of each EPUB content document shall achieve the conformance level and every content document in the EPUB publication shall meet the stated conformance level.

7.4 EPUB requirements

7.4.1 Page navigation

7.4.1.1 Objective

Provide navigation to static page break locations.

7.4.1.2 Understanding this objective

Statically paginated content is still ubiquitous, as print continues to be the most consumed medium for books both among the general reading public and in educational settings. Print is not the only source of static pagination either: static page boundaries are also present in fixed-layout digital publications.

As a result, a non-visual reader in an environment where statically paginated content is used is disadvantaged relative to his or her peers by not being able to easily locate the same locations in the publication (e.g. if a teacher instructs students to all turn to a specific page).

The inclusion of page boundary locations helps bridge this disparity by ensuring that those using reflowable media are not disadvantaged by their choice.

Providing page navigation also helps in reflowable publications that do not have a statically paginated equivalent. The default pagination of these publications by reading systems is not static, since it changes depending on the viewport size and user's font settings. As a result, coordinating locations among users of the same EPUB publication can be complicated without static references.

7.4.1.3 Meeting this objective

Authors should include page navigation in an EPUB publication whenever any of the following cases is true:

— the EPUB publication is identified as the dynamically paginated equivalent of a statically paginated publication (e.g. included in a print/digital bundle);

— the EPUB publication is offered as an alternative to a statically paginated publication in an environment where the use of both versions can be reasonably predicted (e.g. education);

— the EPUB publication and a statically paginated publication are generated from a workflow that allows the retention of page break locations across formats.

Authors may include page navigation in reflowable EPUB publications without statically paginated equivalents.

A conformant EPUB publication shall meet the following criteria when it includes page navigation:

— It shall provide a means of locating the page break locations.

— It may include page break markers.

— It shall identify the source of the page breaks.

In addition, if page numbers are read aloud in a synchronized text-audio playback of the content (e.g. EPUB 3 media overlays), authors shall identify the page numbers in the markup that controls the playback.

See page markers in EPUB Accessibility Techniques[7] for more information on the inclusion of page navigation in EPUB publications.

7.4.1.4 Relationship to WCAG

The inclusion of page navigation represents one method of achieving the multiple ways success criterion (ISO/IEC 40500), as it provides another meaningful way for users to access the content (e.g. in addition to the table of contents, linear reading order and any other navigation aids).

Given the importance of page navigation in mixed print/digital environments, the requirement to include this feature has higher precedence than it would be given solely as one of many ways to meet the multiple ways success criterion.

7.4.2 Media overlays playback

7.4.2.1 Objective

Structure media overlays to provide more accessible playback experiences.

7.4.2.2 Understanding this objective

Media overlays provide an accessible playback experience for anyone who benefits from having text and audio synchronized. They are also useful to users who only require audio playback, or only benefit from reading with text highlighting. Media overlays also enable a seamless playback experience from beginning to end of an EPUB publication for all these users.

The most basic media overlay documents (ISO/IEC 23736-5) provide only minimal instructions to reading systems, however. They indicate the text to highlight and the audio clip that corresponds to the text. The result is that users only have basic start and stop options available.

Authors need to add structure and semantics to media overlay documents to allow reading systems to present more usable experiences. With richer markup, a reading system could provide the ability to skip past secondary content that interferes with the primary narrative, escape users from deeply nested structures like tables, and allow them to navigate through the sections of the publication without having to go to the table of contents.

7.4.2.3 Meeting this objective

Media overlay documents should meet the requirements in ISO/IEC 23736-5. It is not necessary to meet any additional requirements beyond those defined in ISO/IEC 23736-5 to be conformant with this document.

To improve the usability of media overlays, however, authors are encouraged to ensure their EPUB publications meet the following criteria:

— identify all skippable structures (ISO/IEC 23736-5) in the media overlay documents;

— identify all escapable structures (ISO/IEC 23736-5) in the media overlay documents;

— include a media overlay document for the EPUB navigation document (ISO/IEC 23736-5).

7.4.2.4 Relationship to WCAG

Adding structure and semantics to media overlay documents broadly falls under the objective of the info and relationships success criterion (ISO/IEC 40500). Without structured and semantically meaningful playback sequences, the effect is to deprive users of rich navigation of the content.

7.5 Conformance reporting

Conformance reporting is achieved through the expression of metadata properties in the EPUB package document. The metadata uses a combination of properties from ISO 15836-2 and the EPUB accessibility vocabulary in Annex A.

To indicate that an EPUB publication conforms to the accessibility requirements of this document, it shall include a `conformsTo` property in accordance with ISO 15836-2 and an `a11y:certifiedBy` property (A.2.1).

The value of the `conformsTo` property shall be one of the following IRIs:

`http://www.idpf.org/epub/a11y/accessibility-20170105.html#wcag-a`
The EPUB publication meets all accessibility requirements and achieves WCAG 2.0 Level A conformance (ISO/IEC 40500).

`http://www.idpf.org/epub/a11y/accessibility-20170105.html#wcag-aa`
The EPUB publication meets all accessibility requirements and achieves WCAG 2.0 Level AA conformance (ISO/IEC 40500).

`http://www.idpf.org/epub/a11y/accessibility-20170105.html#wcag-aaa`
The EPUB publication meets all accessibility requirements and achieves WCAG 2.0 Level AAA conformance (ISO/IEC 40500).

NOTE 1 An EPUB publication that only meets the content requirements of this document can report conformance using the WCAG conformance URI "`http://www.w3.org/TR/2008/REC-WCAG20-20081211/`" (ISO/IEC 40500). If accessibility metadata is supported through other means (e.g. ONIX[9] records), its inclusion will further improve the discoverability of the publication.

The `a11y:certifiedBy` property specifies the name of the party that evaluated the EPUB publication.

NOTE 2 Conformance evaluation can be done by any individual or party. The evaluator can be the same party that created the EPUB publication or a third party.

The following example shows an EPUB 3 publication that has been self-evaluated by the publisher (the values of the `dc:publisher` and `a11y:certifiedBy` property are the same).

```
<metadata>
  …
  <dc:publisher>Acme Publishing Inc.</dc:publisher>
  <meta property="a11y:certifiedBy">Acme Publishing Inc.</meta>
  <link rel="dcterms:conformsTo" href="http://www.idpf.org/epub/a11y/
accessibility-20170105.html#wcag-aa"/>
  …
</metadata>
```

The following example shows an EPUB 3 publication that has been evaluated by a third party (the values of the `dc:publisher` and `a11y:certifiedBy` property differ).

```
<metadata>
  …
  <dc:publisher>Acme Publishing Inc.</dc:publisher>
  <meta property="a11y:certifiedBy">Foo's Accessibility Testing</meta>
  <link rel="dcterms:conformsTo" href="http://www.idpf.org/epub/a11y/
accessibility-20170105.html#wcag-aa"/>
  …
</metadata>
```

The following example shows an EPUB 3 publication that has been self-evaluated by the author.

```
<metadata>
  …
  <dc:creator>Jane Doe</dc:creator>
  <meta property="a11y:certifiedBy">Jane Doe</meta>
  <link rel="dcterms:conformsTo" href="http://www.idpf.org/epub/a11y/
accessibility-20170105.html#wcag-aa"/>
  …
</metadata>
```

The following example shows a self-evaluated EPUB 2 publication.

```
<metadata>
  …
  <dc:publisher>Acme Publishing Inc.</dc:publisher>
  <meta name="dcterms:conformsTo" content="http://www.idpf.org/epub/a11y/
accessibility-20170105.html#wcag-aa"/>
```

```
  <meta name="a11y:certifiedBy" content="Acme Publishing Inc."/>
  …
</metadata>
```

NOTE 3 If an EPUB publication is evaluated by an organization, users will typically want to know the name of that organization. Including the name of the individual(s) who carried out the assessment, instead of the name of the organization, is generally discouraged, as it can diminish the trust the user has in the claim.

If the party that evaluates the content has been issued a credential or badge that establishes their authority to evaluate content, that information is supplied in an `a11y:certifierCredential` property (A.2.2).

The following example shows a credential.

```
<meta property="a11y:certifierCredential">A+ Accessibility Rating</meta>
```

If the party that evaluates the content has provided a detailed report of its assessment, a link to the assessment is provided in an `a11y:certifierReport` property (A.2.1).

The following example shows a link to a remotely hosted accessibility report.

```
<link rel="a11y:certifierReport"
      href="http://www.example.com/a11y/report/9780000000001"/>
```

The following example shows a link to a locally hosted accessibility report.

```
<link rel="a11y:certifierReport" href="reports/a11y.xhtml"/>
```

NOTE 4 As each metadata format is unique in what it can express, this document does not mandate how conformance metadata is expressed outside of the EPUB package document.

NOTE 5 This document does not define requirements for accessibility metadata external to an EPUB 3 publication as part of distribution metadata. Ensuring consistency between internal and external accessibility metadata expressions is the responsibility of authors, publishers and distributors. For further discussion of the effects of distribution on accessibility, see Clause 9.

8 Optimized publications

Although WCAG 2.0 (ISO/IEC 40500) provides a general set of guidelines for making content broadly accessible, conformant content is not always optimal for specific user groups. Conversely, content optimized for a specific need or reading modality is often not conformant to WCAG because it is not designed for a broad audience.

For example, an EPUB publication with synchronized text and audio can contain a full audio recording of the content but limit the text content to only the major headings. In this case, the EPUB publication is consumable by users who needs to hear the content (i.e. they can listen to the full publication and can navigate between headings), but it is not usable by anyone who cannot hear the audio.

In other words, when an EPUB publication is optimized for specific reading modalities, the failure to achieve a WCAG conformance level does not make it any less accessible to the intended audience.

An EPUB publication that has been optimized shall identify the standard or guidelines the content adheres to in a `conformsTo` property in accordance with ISO 15836-2. The value of this property shall be an IRI in accordance with RFC 3987 that references the standard or guidelines it follows.

The following example shows a conformance statement for an EPUB 3 publication that conforms to the DAISY Navigable Audio-only EPUB 3 Guidelines[4].

```
<package …>
   <metadata>
      …
      <link rel="dcterms:conformsTo" href="https://www.daisy.org/guidelines/epub/
navigable-audio-only-epub3-guidelines"/>
      …
   </metadata>
   …
</package>
```

If the IRI is not sufficient for a user to understand conformance (e.g. the guidelines are not publicly available), more information about how the content has been optimized should be provided in the accessibility summary (6.2).

The following example shows an accessibility summary for an EPUB publication optimized for braille rendering.

```
<meta property="schema:accessibilitySummary">
    This publication is optimized for braille readers. It will not be
    usable by persons who cannot read braille. The publication is designed
    for braille reading devices capable of displaying 6 character cells and
    40 character line lengths. The text is not contracted, and follows
    Unified English Braille formatting conventions. All characters are
    encoded using the Unicode braille character set.
</meta>
```

The following example shows an accessibility summary for an EPUB publication optimized for audio rendering.

```
<meta property="schema:accessibilitySummary">
    This publication is an audio book. It will not be usable by persons who
    cannot hear the audio. The publication is recorded by a professional
    narrator. There is navigation to the beginning of each chapter. The text
    of the publication is not included. Images are not included, but the
    photo captions are narrated at the end of the chapter where they occur.
</meta>
```

NOTE This document does not define or recommend standards or guidelines for the production of optimized content. The informative EPUB Optimized Publication Standards Registry[8] is maintained separately from this document, but no endorsement of the standards is implied.

9 Distribution

The creation of an EPUB publication that is accessible does not in itself guarantee that the content will be obtainable or consumable by users. Depending on how the EPUB publication is distributed, other factors will influence its overall accessibility.

Not all these factors are under the control of the author. For example, an accessible interface for locating and obtaining content is an essential part of the distribution process, as is the ability to search and review accessibility metadata. Such interfaces are typically out of the control of content authors, however, as distribution of EPUB publications is often done through third parties. Even when an author controls their own distribution, the accessibility of their bookstore, library and/or reading system can be outside their control.

There are, however, decisions an author can control when their content is distributed, such as what digital rights to apply to their EPUB publications. Although these decisions are not part of the preparation of their EPUB publications, their potential impact on users means attention needs to be paid to them.

To minimize the effects of distribution on accessibility, authors are therefore advised to adhere to the following distribution practices:

— they do not impose restrictions that impair access by assistive technologies; and

— they include accessibility metadata in the record format required for distribution of an EPUB publication when such metadata is supported by the format.

NOTE Following the guidance in this clause does not restrict authors from using distributors whose digital rights management schemes impair accessibility. The intent is that the author does not impair accessibility by activating a feature that that would normally not be active (e.g. restricting access to the text by assistive technologies).

Annex A
(informative)

EPUB accessibility vocabulary

A.1 Overview

A.1.1 About this vocabulary

This vocabulary defines properties for describing the accessibility of EPUB publications in the package document metadata.

A.1.2 Referencing

The base IRI for referencing this vocabulary is
`http://www.idpf.org/epub/vocab/package/a11y/#.`

The prefix "`a11y:`" is reserved for use with properties in this vocabulary and does not have to be declared in the package document.

A.2 Conformance properties

A.2.1 certifiedBy

Name:	`certifiedBy`
Description:	Identifies a party responsible for the testing and certification of the accessibility of an EPUB publication
Allowed value(s):	`xsd:string`
Cardinality:	One or more
Example:	`<meta property="a11y:certifiedBy">Accessibility Testers Group</meta>`

A.2.2 certifierCredential

Name:	`certifierCredential`
Description:	Identifies a credential or badge that establishes the authority of the party identified in the `certifiedBy` property to certify content accessible
Allowed value(s):	`xsd:string`
Cardinality:	Zero or more
Example:	`<meta property="a11y:certifierCredential">DAISY OK</meta>`

A.2.3 certifierReport

Name:	`certifierReport`
Description:	Provides a link to an accessibility report created by the party identified in the `certifiedBy` property
Allowed value(s):	`xsd:anyURI`
Cardinality:	Zero or more

Example:	`<link rel="a11y:certifierReport" href="http://example.com/a11y/reports/9780000000001"/>`

Bibliography

[1] ISO/IEC 23736-1, *Information technology — Digital publishing — EPUB 3.0.1 — Part 1: Overview*

[2] ISO/IEC 23736-5, *Information technology — Digital publishing — EPUB 3.0.1 — Part 5: Media overlays*

[3] Accessible Rich Internet Applications (WAI-ARIA) 1.1. W3C Recommendation. 14 December 2017. Joanmarie Diggs, et al. Available at https://www.w3.org/TR/wai-aria-1.1/

[4] DAISY Navigable Audio-only EPUB 3 Guidelines. April 24, 2015. Avneesh Singh, et al. Available at https://www.daisy.org/guidelines/epub/navigable-audio-only-epub3-guidelines

[5] EPUB 2, Open Publication Format (OPF) 2.0.1 v. 1.0.1. IDPF Recommended Specification. September 4, 2010. Available at http://idpf.org/epub/20/spec/OPF_2.0.1_draft.htm

[6] EPUB Accessibility Frequently Asked Questions. IDPF Informational Document. 6 September 2016. Available at https://idpf.github.io/epub-guides/a11y-faq/

[7] EPUB Accessibility Techniques. IDPF Informational Document. 05 January 2017. Matt Garrish, et al. Available at http://www.idpf.org/epub/a11y/techniques/techniques.html

[8] EPUB Optimized Publication Standards Registry. IDPF Informational Document. 05 October 2016. Available at http://idpf.github.io/epub-registries/optimizations/

[9] ONIX for Books Product Information Message 3.0. EDItEUR. Available at https://www.editeur.org/8/ONIX/

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