



DRAFT Proposals for e-book accessibility description in ONIX

EDItEUR – as a part of its involvement in WIPO’s Enabling Technologies Framework – is working on a method for incorporating information about the accessibility of e-books into ONIX versions 2.1 and 3.0.

The aim is to describe the suitability of a particular e-publication for a particular print-impaired reader. ‘Accessibility’ is not a single ‘yes’ or ‘no’ attribute; it is a collection of attributes, and the relative importance of each one may vary according to the type and degree of print-impairment of that particular reader.

EDItEUR acknowledges the important contribution made by representatives of the DAISY Consortium, the IDPF, RNIB, Vision Australia, AIE, CNIB and others during discussions that guided development of this proposal.

What is ONIX?

ONIX for Books is an industry-standard metadata framework that’s widely implemented in the global commercial book supply chain. Although originating in the USA and UK, it is used throughout North America, in most European countries, and increasingly in the Asia-Pacific region. The standard is maintained by EDItEUR under the governance of an international steering committee that includes representatives of ONIX practitioners from around 20 countries, including, most recently, both Japan and China.

The ONIX framework consists of a Specification for an XML-based data message, a set of Codelists (controlled vocabularies) for use within that message, and a set of Implementation and Best practice guidelines.

At present, ONIX can already describe certain product features that are relevant to accessibility – it describes books, audiobooks and e-books, books in large type or in Braille, e-books in ePub, PDF, DAISY, mobile app or other formats, and it can describe the technical protection and usage constraints (DRM) applied to the product.

Full details of the ONIX framework are available from the EDItEUR website (<http://www.editeur.org>).

How would it work?

The proposal suggests that detailed accessibility information relating to e-books should be carried in ONIX’s <ProductFormFeature> composite, a data structure that is common to ONIX 2.1 and 3.0 (the two versions in current use). <ProductFormFeature> is an optional and repeatable data element that is used to carry a number of different product attributes, including cover material (eg for special types of binding), product safety information (eg CPSIA or EU Toy Safety) and hardware/software requirements for e-publications. <ProductFormFeature> includes <ProductFormFeatureType> and one or both of <ProductFormFeatureValue> (for coded attributes) and <ProductFormFeatureDescription> (for textual attributes).

<ProductFormFeatureType> code 09 is reserved for accessibility attributes.

<ProductFormFeatureValue> then carries a code from the table below (ONIX for Books Codelist 196). Through successive repeats of <ProductFormFeature> with feature type 09 and different values for feature value, the accessibility of the product can be described in a highly granular way.

The following example shows a snippet of ONIX data describing a product where all the accessibility features that are provided by the reading system itself remain usable, and where in addition, full descriptions accompany all illustrations.

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<ProductFormFeature>
  <ProductFormFeatureType>09</ProductFormFeatureType>
  <ProductFormFeaureValue>10</ProductFormFeatureValue>
</ProductFormFeature>
<ProductFormFeature>
  <ProductFormFeatureType>09</ProductFormFeatureType>
  <ProductFormFeaureValue>15</ProductFormFeatureValue>
</ProductFormFeature>

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Note that ONIX codelists such as List 196 are under constant review, and new codelists are issued at least three times per year (typically in October, February and June). New codes can be added, existing codes refined or old codes deprecated as new accessibility features or requirements emerge.

Next steps

This proposal is being circulated to the ONIX International Steering Committee, NISO E-book Accessibility Subgroup, Enabling Technology Framework project partners and other interested parties. The intention is to collect feedback by 30th September, revise as necessary, and then to include the proposals in a package of changes, ONIX Codelists Issue 15, that will be ratified at a meeting of the International Steering Committee at the Frankfurt Book Fair.

Note that any contentious items will simply be left out of Issue 15. Further discussion and refinement may lead to inclusion in Issue 16, which should be finalised during February 2012.

Graham Bell
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 29th August 2011

List 196 – E-publication Accessibility detail (Provisional)

The list attempts to enumerate those accessibility attributes that may be of importance to specific print-impaired readers.

Code	Label	Note
10†	Reading system accessibility options enabled	No accessibility features offered by the reading system (including but not limited to choice of text size or typeface, choice of text or background color, text-to-speech) are disabled, overridden or otherwise unusable.
11	Table of contents navigation	Table of contents allows direct (eg hyperlinked) access to all levels of text organization above individual paragraphs (eg to all sections and subsections, to all tables, figures, illustrations etc)
12	Index navigation	Any index provides direct (eg hyperlinked) access to uses of the index terms in the document body.
13	Reading order	All or substantially all textual matter is arranged in a single logical reading order (including text that is visually presented separate from the main text flow, eg in boxouts, captions, tables etc).
14	Alternative descriptions	All or substantially all non-text content has short alternative descriptions, usually provided via <i>alt</i> attributes. Note this applies to normal images (eg photographs, charts and diagrams) and also to any embedded video etc. Audio and video content should include alternative descriptions for hearing-impaired as well as visually-impaired readers. Purely decorative non-text content can be ignored.

15	Full alternative descriptions	All or substantially all non-text content has full alternative descriptions, usually provided via describedBy or longdesc attributes*. Note this applies to normal images (eg photographs, charts and diagrams) and also to any embedded audio, video etc. Audio and video content should include full alternative descriptions and subtitles for hearing-impaired as well as visually-impaired readers. Purely decorative non-text content can be ignored.
16	Visualised data also available as non-graphical data	Where data visualisations are provided (eg graphs and charts), the underlying data is also available in non-graphical (usually tabular) form.
17	Accessible math content	Mathematical content such as equations is usable with assistive technology, eg through use of MathML. Semantic MathML is preferred but Presentational MathML is acceptable.
18	Accessible chem content	Chemistry content such as chemical formulae is usable with assistive technology, eg through use of ChemML.
19	Has print-equivalent page numbering	For a reflowable e-publication, contains references to the page numbering of an equivalent printed product.
97	Compatibility tested	<ProductFormFeatureDescription> carries a short description of compatibility testing carried out for this product, including detailed compatibility with various assistive technologies.
98	Trusted Intermediary contact	<ProductFormFeatureDescription> carries the e-mail address for a contact at a 'trusted intermediary', to whom detailed questions about accessibility for this product may be directed.
99	Contact for further accessibility information	<ProductFormFeatureDescription> carries the e-mail address for a contact at the publisher to whom detailed questions about accessibility of this product may be directed.

These attributes should apply to all or very nearly all of the document. As an example, if one or two illustrations out of 100 in a book lack an alternative description, then the book may be described as having alternative descriptions. If more than a handful of illustrations lack alternative descriptions, then it severely compromises the value of the book to a reader that requires text descriptions of illustrations. In borderline cases, the relative editorial importance of a particular image should be taken into consideration.

† codes 01–09 are reserved for use with particular badging or compliance schemes, but suitable schemes have not yet been identified.

* longdesc and describedBy are not currently standardised, so the method for including long descriptions is somewhat unclear.