

DRAFT MARC 21 Crosswalk for A11Y Metadata crosswalk (based on the original crosswalk from EDRLab French workshops)

Table view

[Part 1 of the original document included a list, found here for reference:

<https://docs.google.com/document/d/1FD8ze-A0-cAxXZc8joJWHmVXG7WuyxdF/edit?usp=sharing&ouid=110044170227731414177&rtpof=true&sd=true>]

Information and references:

MARC 21 information: <https://www.loc.gov/marc/bibliographic/>

Fixed length fields (fixed fields) and variable length fields (very brief summary – fuller details:

<https://www.loc.gov/marc/specifications/specrecstruc.html>)

MARC 21 fixed field = 3 digit numeric code (except the Leader); no indicators, value in each position has a specific meaning.

MARC 21 variable length field = 3 digit numeric code; each field can have 2 indicators that signify different values; each field can have one or more subfields; convention to designate subfield = \$; if no subfield, assume \$a.

More detailed information about MARC 21 fields [341](#) and [532](#)

ONIX definitions were added into the table to assist with mapping work.

Schema definitions are found here: <https://www.w3.org/2021/a11y-discov-vocab/latest/>

“ConformsTo” term used in EPUB –drawn from Dublin Core.

EPUB	ONIX	EPUB to MARC21	ONIX to MARC21	UNIMARC
certifiedBy	Liste 196 Code 93 Compliance certification by [URL]	532 8# Accessibility Note (Non-specific)\$u[URL]	532 8# Accessibility Note <u>\$u[URL]</u>	231 ##\$i93\$2onix196
certifierReport	List: 196; Code: 94: Compliance web page for detailed accessibility information or, if a publisher is self-certifying, Code: 96: Publisher's web page for detailed accessibility information	532 8# Accessibility Note (Non-specific) \$u[URL] 856 - Electronic Location and Access 856 42 \$3Certifier report\$u[URL to Certifier report] 856 42 \$3Publishers's Accessibility Report \$u[URL to Certifier report]	532 8# Accessibility Note <u>\$u[URL]</u>	231 ##\$i94\$2onix196 ; 231 ##\$i96\$2onix196
certifierCredential	–	532 8# Accessibility Note (Non-specific)		
dcterms:conformsTo with the URL http://www.idpf.org/ePub/a11y/accessibilit	List: 196; Code: 02: EPUB Accessibility Specification 1.0 A	532 8# Accessibility Note (Non-specific)\$u	532 8# Accessibility Note <u>\$u[URL]</u>	231 ##\$i02\$2onix196

EPUB	ONIX	EPUB to MARC21	ONIX to MARC21	UNIMARC
y-20170105.html#wcag-a				
dcterms:conformsTo with the URL http://www.idpf.org/ePub/a11y/accessibility-20170105.html#wcag-a	List: 196; Code: 03: EPUB Accessibility Specification 1.0 AA	532 8# Accessibility Note (Non-specific)\$a\$u	532 8# Accessibility Note \$u[URL]	231 ##\$i03\$2onix196

Schema.org and ONIX

Schema.org	ONIX	MARC21	UNIMARC
accessibilityFeature (vocabulary list follows)	List 196 (specific codes follow)	This specific value is not mapped, but specific Accessibility Features are mapped in 341 Accessibility Content \$b-\$e and/or 532 1# Accessibility features	
alternativeText Alternative text is provided for visual content (e.g., via the [HTML] alt attribute).	List: 196; Code: 14: Short alternative descriptions All or substantially all non-text content has short alternative (textual) descriptions. this applies to normal images (eg photographs, charts and diagrams) and	341 Accessibility content \$a and \$b and \$2 341\$a visual\$b alternativeText\$2s apdv 341\$a audio\$b alternativeText\$2s apdv	231 ##\$i14\$2onix196

Schema.org	ONIX	MARC21	UNIMARC
	also to any embedded audio, video etc. Audio and video content should include alternative descriptions suitable for hearing-impaired as well as for visually-impaired readers. Accessibility of resources delivered via a network connection rather than as part of the e-publication package must be included.		
annotations The work includes annotations from the author, instructor and/or others.	—	532 8#Accessibility Note (Non-specific) 532 8# \$a This resource includes annotations from the author, instructor and/or others. Or 532 2# Accessibility deficiencies	

Schema.org	ONIX	MARC21	UNIMARC
		532 2# \$a This resource includes annotations from the author, instructor and/or others. And/Or 341 Accessibility content \$a and \$b and \$2 341\$a textual\$b annotations \$2 sapdv	
audioDescription Audio descriptions are available (e.g., via an [HTML] track element with its kind attribute set to "descriptions").	–	341 Accessibility content \$a and \$d and \$2 341\$a visual\$d audio Description\$2 sapdv	
bookmarks The work includes bookmarks to facilitate navigation to key points.	N/A (Reading system feature)	341 Accessibility content \$a and \$d and \$2 341\$a textual\$b bookmarks\$2 sapdv	

Schema.org	ONIX	MARC21	UNIMARC
braille The content is in braille format [1], or [2] alternatives are available in braille. This value can be extended to identify the different types of braille (/ASCII, /unicode, /music, /math, /chemistry or /nemeth), and whether the braille is contracted or not (/grade1 and /grade2). Other extensions such as the code the braille conforms to can also be specified.	–	[1] MARC 21 fixed fields: 007/00=f ; Tactile material 00 - Category of material 01 - Specific material designation 02 - Undefined 03-04 - Class of braille writing 05 - Level of contraction 06-08 - Braille music format 09 - Special physical characteristics 008/23=f ; Form of item : Braille 336 \$atactile text\$2rdaco [2] 341 Accessibility content \$a and \$e and \$2	

Schema.org	ONIX	MARC21	UNIMARC
		341\$a\$text\$b\$braille	
captions Indicates that synchronized captions are available for audio and video content.	–	341 Accessibility content \$a and \$b and \$2 341\$a\$auditory\$b\$captions\$2sapdv 341\$a\$visual\$b\$captions\$2sapdv	
chemML Identifies that chemical information is encoded using the ChemML markup language.	List: 196; Code: 18: Accessible chem content Chemistry content such as chemical formulae is usable with assistive technology, eg through use of ChemML	341 Accessibility content \$a and \$b and \$2 341\$a\$visual\$b\$ChemML\$2sapdv	231 ##\$i18\$2onix196
describedMath Textual descriptions of math equations are included, whether in the alt attribute for	–	341 Accessibility content \$a and \$b and \$2	

Schema.org	ONIX	MARC21	UNIMARC
image-based equations, using the alttext attribute for [MathML] equations, or by other means.		341\$avisual\$bdescribedMath\$2sapdv	
displayTransformability Display properties are controllable by the user.	–	341 Accessibility content \$a and \$b and \$2 341\$a textual\$b displayTransformability\$2sapdv	
highContrastAudio Audio content with speech in the foreground meets the contrast thresholds set out in WCAG Success Criteria 1.4.7. The requirement the audio meets can be appended, but is not required	–	341 Accessibility content \$a and \$d and \$2 341\$a auditory\$d highContrastAudio\$2sapdv	
highContrastDisplay Content meets the visual contrast threshold set out in WCAG Success Criteria 1.4.6.	–	341 Accessibility content \$a and \$b and \$2 341\$a textual\$b highContrastDisplay\$2sapdv	

Schema.org	ONIX	MARC21	UNIMARC
		or 341\$avvisual\$c highContrastDisplay \$2sapdv	
index The work includes an index to the content.	List: 196; Code: 12: Index navigation Index provides direct (eg hyperlinked) access to uses of the index terms in the document body.	341 Accessibility content \$a and \$b and \$2 341\$atextual\$bindex \$2sapdv	231 ##\$i12\$2onix196
largePrint The content has been formatted to meet large print guidelines. The specific point size may optionally be added as an extension (e.g., largePrint/18). The property is not set if the font size can be increased.	—	341 Accessibility content \$a and \$b and \$2 341\$atextual\$blarge Print\$2sapdv Fixed fields 007 and 008 007 pos 00 Text pos 01Specific material designation b Large print	

Schema.org	ONIX	MARC21	UNIMARC
		008 Books/Music pos 23 form of item d Large print 008 Cartographic Pos 29 d Large print 340 Physical medium 340 ## \$nLarge print (18 point)\$2rdafs	
latex Identifies that mathematical equations and formulas are encoded in the LaTeX typesetting system.	–	341 Accessibility content \$a and \$b and \$2 341\$avisual\$blatex\$ 2sapdv and/or 532 1#Accessibility features 532 1# \$aMathematical equations and formulas encoded in LaTeX.	

Schema.org	ONIX	MARC21	UNIMARC
longDescription Descriptions are provided for image-based visual content and/or complex structures such as tables, mathematics, diagrams, and charts.	List: 196; Code: 15: Full alternative descriptions: 16: Visualised data also available as non-graphical data 15. All or substantially all non-text content has full alternative (textual) descriptions. Audio and video content should include full alternative descriptions (eg audio-described video) and transcript, subtitles or captions (whether closed or open) suitable for hearing-impaired as well as for visually-impaired readers. Resources delivered via a network connection rather than as part of the e-publication package must be included. 16. Visualised data also available as non-graphical data. Where data visualisations are provided (eg graphs and charts), the underlying data is also	341 Accessibility content \$a and \$b and \$2 341\$visual\$blongDescription\$2sapdv	231 ##\$i15\$2onix196 ; 231 ##\$i16\$2onix196

Schema.org	ONIX	MARC21	UNIMARC
	available in non-graphical (usually tabular, textual) form		
mathML Identifies that mathematical equations and formulas are encoded in [MathML].	List: 196; Code: 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.	341 Accessibility content \$a and \$b and \$2 341\$avisual\$bMathML\$2sapdv And/Or 532 1#Accessibility features 532 1# \$aMathematical equations are encoded in MathML.	231 ##\$i17\$2onix196
none Indicates that the resource does not contain any accessibility features.	–	Would not map.	
printPageNumbers The work includes equivalent print page numbers. This setting is most commonly used with ebooks for	341	341 Accessibility content \$a and \$b and \$2	231 ##\$i19\$2onix196

Schema.org	ONIX	MARC21	UNIMARC
which there is a print equivalent.		341\$atextual\$bprint PageNumbers\$2sap dv And/Or 532 1#Accessibility features 532 1# \$aIncludes equivalent print page numbers.	
readingOrder The reading order of the content is clearly defined in the markup (e.g., figures, sidebars and other secondary content has been marked up to allow it to be skipped automatically and/or manually escaped from.	List: 196; Code: 13: Reading order All or substantially all textual matter is arranged in a single logical reading order (including text that is visually presented as separate from the main text flow, eg in boxouts, captions, tables, footnotes, endnotes, citations, etc). Non-textual content is also linked from within this logical reading order.	341 Accessibility content \$a and \$b and \$2 341\$atextual\$breadingOrder\$2sapdv And/Or 532 1# Accessibility features 532 1# \$aArranged in logical reading order.	231 ##\$i13\$2onix196
rubyAnnotations Indicates that ruby annotations [HTML]	—	341 Accessibility content	

Schema.org	ONIX	MARC21	UNIMARC
are provided in the content. Ruby annotations are used as pronunciation guides for the logographic characters for languages like Chinese or Japanese. It makes difficult Kanji or CJK ideographic characters more accessible.		\$a and \$b and \$2 341\$a textual \$b ruby Annotations \$2 sapdv And/Or 532 1# Accessibility features 532 1# \$a Includes Rudy Annotations.	
signLanguage Sign language interpretation is available for audio and video content. The value may be extended by adding an [ISO-639] sign language code. For example, /sgn-en-us for American Sign Language.	–	341 Accessibility content \$a and \$c and \$2 3410#\$a auditory \$c sign Language \$2 sapdv And 041 - Language code \$r (language code of accessible visual language (non-textual)) 041#7\$r ase \$2 iso639-3	

Schema.org	ONIX	MARC21	UNIMARC
structuralNavigation The use of headings in the work fully and accurately reflects the document hierarchy, allowing navigation by assistive technologies.	–	341 Accessibility content \$a and \$b and \$2 341\$a textual\$b structuralNavigation\$2sapdv And/Or 532 1# Accessibility features 532 1# \$a Formatted to permit structural navigation by assistive technologies.	
synchronizedAudioText Describes a resource that offers both audio and text, with information that allows them to be rendered simultaneously. The granularity of the synchronization is not specified. This term is not recommended when the only material that is synchronized is the document headings.	List: 196; Code: 20: Synchronised pre-recorded audio Text-synchronised pre-recorded audio narration (natural or synthesised voice) is included for substantially all textual matter, including all alternative descriptions.	341 Accessibility content \$a and \$d and \$2 341\$a textual\$d synchronizedAudioText\$2sapdv Specify granularity in 532 1# Accessibility features\$a	231 ##\$i20\$2onix196

Schema.org	ONIX	MARC21	UNIMARC
tableOfContents The work includes a table of contents that provides links to the major sections of the content.	List: 196; Code: 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) and to all tables, figures, illustrations etc. Non-textual items such as illustrations, tables, audio or video content may be directly accessible from the Table of contents, or from a similar List of illustrations, List of tables, etc.	341 Accessibility content \$a and \$b and \$2 341\$a textual\$b table of Contents\$2 sapdv and/or 532 1# Accessibility features 532 1#\$a Table of contents that provides links to the major sections of the content.	231 ##\$i 11\$2 onix196
taggedPDF The structures in a PDF have been tagged to improve the navigation of the content.	—	341 Accessibility content \$a and \$b and \$2 341\$a textual\$b tagged PDF\$2 sapdv and/or 532 1# Accessibility features	

Schema.org	ONIX	MARC21	UNIMARC
		532 1#\$aTagged PDF.	
tactileGraphic [1] When used with creative works such as books, indicates that the resource includes tactile graphics. [2] When used to describe an image resource or physical object, indicates that the resource is a tactile graphic.	-	[1] 341 Accessibility content \$a and \$e and \$2 341\$avisual\$etactile Graphic\$2sapdv [2] 336 Content type 336 ##\$atactile image\$2rdacontent and 500 - Note 500 \$a Tactile graphic .	
tactileObject [1] When used with creative works such as books, indicates that the resource includes	-	[1] 532 1# Accessibility features \$a Includes models to generate 3D objects	

Schema.org	ONIX	MARC21	UNIMARC
models to generate tactile 3D objects. [2]When used to describe a physical object, indicates that the resource is a tactile 3D object.		[2] Leader pos 6 r Three-dimensional artifact or naturally occurring object and 336 ##\$atactile three-dimensional form\$2rdacontent and 500 \$aTactile 3D object.	
timingControl For content with timed interaction, this value indicates that the user can control the timing to meet their needs (e.g., pause and reset) —		341 Accessibility content \$a and \$d and \$2 341\$aauditory\$dtimingControl\$2sapdv 341\$avisual\$dtimingControl\$2sapdv	
transcript Indicates that a transcript of the audio content is available. —		341 Accessibility content \$a and \$b and \$2	

Schema.org	ONIX	MARC21	UNIMARC
		341\$aauditory\$btranscript\$2sapdv Optional: 041 - Language code 041 0#t[language code]	
ttsMarkup One or more of [SSML], [Pronunciation-Lexicon], and [CSS3-Speech] properties has been used to enhance text-to-speech playback quality.	List: 196; Code: 21: Text-to-speech hinting provided: 22: Language tagging provided Text-to-speech has been optimised through provision of PLS lexicons, SSML or CSS Speech synthesis hints.	341 Accessibility content \$a and \$b and \$2 341\$a textual\$b ttsMarkup\$2sapdv 532 1# Accessibility features\$a Pronunciation-Lexicon has been used to enhance text-to-speech playback quality.	231 ##\$i21\$2onix196
unlocked No digital rights management or other content restriction protocols have been applied to the resource.	—	532 1# \$aNo DRM (digital rights management) or other content restriction protocols	

Schema.org	ONIX	MARC21	UNIMARC
		have been applied to the resource.	
-	List: 196: Code 22: Language tagging provided – helps with TTS in multi-lingual content The language of the text has been specified (eg via the HTML or XML lang attribute) to optimise text-to-speech (and other alternative renderings), both at whole document level [1] and, where appropriate, [2] for individual words, phrases or passages in a different language.	[01] 041 0# \$a eng \$a fre \$b ger \$b spa <i>and</i> 532 1# \$a The language of the text has been specified (eg via the HTML or XML lang attribute) to optimise text-to-speech (and other alternative renderings), both at whole document level and, where appropriate, for individual words, phrases or passages in a different language. <i>and</i> 546 - Language note 546##\$a English and French;	231 ##\$i22\$2onix196

Schema.org	ONIX	MARC21	UNIMARC
		summaries in German and Spanish.	
-	List: 196; Code 24: Dyslexia readability Specialised font, character and/or line spacing, justification and paragraph spacing, coloring and other options provided specifically to improve readability for dyslexic readers. Details, including the name of the font if relevant, should be listed in <ProductFormFeatureDescription>.	532 1# \$a Specialised font, character and line spacing, justification and paragraph spacing, and coloring for dyslexic readers. 385 Audience characteristics 385 ## \$a Dyslexic readers.	231 ##\$i24\$2onix196
-	List: 196; Code 09: Inaccessible Known to lack significant features required for broad accessibility. For use in ONIX 3.0 only	532 2# Accessibility Deficiencies Example 532 2# \$a Lacks significant accessibility features.	231 ##\$i09\$2onix196
-	List: 196; Code 10: No reading system accessibility options disabled	532 8# \$aNo accessibility features offered by the reading system,	231 ##\$i10\$2onix196

Schema.org	ONIX	MARC21	UNIMARC
	No accessibility features offered by the reading system, device or reading software (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 with the product EXCEPT – in ONIX 3 messages only – those specifically noted as subject to restriction or prohibition in <EpubUsageConstraint>. Note that provision of any significant part of the textual content as images (ie as pictures of text, rather than as text, and without any textual equivalent) inevitably prevents use of these accessibility options	device or reading software (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 with the product EXCEPT – in ONIX 3 messages only – those specifically noted as subject to restriction or prohibition in <EpubUsageConstraint>. Note that provision of any significant part of the textual content as images (ie as pictures of text, rather than as text, and without any textual equivalent) inevitably prevents use of these accessibility options	
accessibilityHazard (vocabulary list follows)	–	532 8# Accessibility Note	

Schema.org	ONIX	MARC21	UNIMARC
A characteristic of the described resource that is physiologically dangerous to some users. Related to WCAG 2.0 guideline 2.3. Identifying potential hazards that a resource poses allows users to determine if a resource poses a risk to them and to potentially filter out content that could be harmful. If no hazards are known to exist, it is recommended to use the value "none". If the content has hazard(s), include positive assertions for the hazards it has and negative assertions (the values that begin with "no") for the others. If this property is not set for a resource, it is not possible to state whether it presents hazards or not. Similarly, if an author			

Schema.org	ONIX	MARC21	UNIMARC
sets the value unknown, they are stating that they do not know whether hazards are present (e.g., because they do not know how, or are unable, to assess them).			
flashing Indicates that the resource presents a flashing hazard for photosensitive persons.	Liste 143 Code 13 WARNING – Flashing hazard Product flashes, flickers or includes high-contrast static or moving patterns which may cause discomfort or seizures in people with photosensitive epilepsy	Accessibility Note (Unspecified) 532 8# The resource presents a flashing hazard for photosensitive persons.	
noFlashingHazard Indicates that the resource does not present a flashing hazard.		No need to map Accessibility Note (Unspecified) 532 8# \$aThis resource does not present a flashing hazard.	

Schema.org	ONIX	MARC21	UNIMARC
motionSimulation Indicates that the resource contains instances of motion simulation that may affect some individuals.	Liste 143 Code 17 WARNING – Motion simulation hazard Products simulates (via visual effects) the experience of motion, which may cause nausea in sensitive people.	Accessibility Note (Unspecified) 532 8# \$aContains instances of motion simulation that may affect some individuals.	
noMotionSimulationHazard Indicates that the resource does not contain instances of motion simulation.	–	Accessibility Note (Unspecified) 532 8# \$aThis resource does not contain instances of motion simulation.	
sound Indicates that the resource contains auditory sounds that may affect some individuals.	Liste 175 Code A310 Sound effects Incidental sounds added to the audiobook narration (eg background environmental sounds) Is this a hazard or a feature?	Accessibility Note (Unspecified) 532 8# \$aContains auditory sounds that may affect some individuals. Propose new indicator for Hazards in 532?	
noSoundHazard	–		

Schema.org	ONIX	MARC21	UNIMARC
Indicates that the resource does not contain auditory hazards.		Note (Unspecified) 532 8# \$aThis resource does not contain auditory hazards.	
unknown Indicates that the author is not able to determine if the resource presents any hazards.	–	532 - Accessibility Note (Unspecified) 532 8# \$aThis resource has not been evaluated for hazard risks.	
accessibilityAPI Indicates that the resource is compatible with the referenced accessibility API. Compatibility with an accessibility API indicates that assistive technologies on the platform should be able to access the resource. The property is not applicable to resources that are not tightly integrated with their user interface. It can describe whether	–	Only specific APIs are mapped to 532 0# Accessibility technical details	

Schema.org	ONIX	MARC21	UNIMARC
a word processing document that only opens in a specific application will work on a given platform, for example, but is not a useful indicator of whether an HTML document will, as there are numerous user agents a user could use to render it. Setting the property means that the resource is compatible with the given API(s). It does not necessarily mean that the content will be fully accessible to any given user group.			
AndroidAccessibility Indicates the resource is compatible with the Android Accessibility API.	–	532 0# Accessibility Technical Details 532 0# \$aResource is compatible with the Android Accessibility API.	
ARIA (deprecated)	–		

Schema.org	ONIX	MARC21	UNIMARC
ATK Indicates the resource is compatible with the Accessibility Toolkit (ATK) API for GNOME.	–	532 0# Accessibility Technical Details 532 0# \$aResource is compatible with the Accessibility Toolkit (ATK) API for GNOME	
AT-SPI Indicates the resource is compatible with the Assistive Technology Service Provider Interface (AT-SPI) API for GNOME.	–	532 0# Accessibility Technical Details 532 0# \$a Resource is compatible with the Assistive Technology Service Provider Interface (AT-SPI) API for GNOME.	
BlackberryAccessibility Indicates the resource is compatible with the Blackberry Accessibility API.	–	532 0# Accessibility Technical Details 532 0# \$aResource is compatible with the Blackberry Accessibility API.	
iAccessible2 Indicates the resource is compatible with the	–	532 0# Accessibility Technical Details	

Schema.org	ONIX	MARC21	UNIMARC
iAccessible2 API for Windows.		Example: 532 0# \$aResource is compatible with the iAccessible2 API for Windows.	
iOSAccessibility Indicates the resource is compatible with the iAccessible2 API for Apple iOS devices.	–	532 0# Accessibility Technical Details Example: 532 0# \$aResource is compatible with the iAccessible2 API for Apple iOS devices.	
JavaAccessibility Indicates the resource is compatible with the Java Accessibility API (JAAPI).	–	532 0# Accessibility Technical Details Example: 532 0# \$aResource is compatible with the Java Accessibility API (JAAPI).	
MacOSXAccessibility Indicates the resource is compatible with the iAccessible2 API for Windows.	–	532 0# Accessibility Technical Details Example: 532 0# \$aResource is compatible with the iAccessible2 API for Windows.	

Schema.org	ONIX	MARC21	UNIMARC
MSAA Indicates the resource is compatible with the Microsoft Active Accessibility (MSAA) API for Windows.	–	532 0# Accessibility Technical Details Example: 532 0# \$aResource is compatible with the Microsoft Active Accessibility (MSAA) API for Windows	
UIAutomation Indicates the resource is compatible with the User Interface Automation API for Windows.	–	532 0# Accessibility Technical Details Example: 532 0# \$Compatible with the User Interface Automation API for Windows.	
accessibilityControl Identifies one or more input methods that allow access to all of the application functionality. The accessibilityControl property is used to describe the ability of users to interact with the user interface controls that applications provide.	–	Specific input methods mapped to 532 0# Accessibility technical details	

Schema.org	ONIX	MARC21	UNIMARC
The property is not applicable to resources that are not tightly integrated with their user interface. It can describe whether users can control a word processing document that only opens in a specific application, for example, but is not a useful indicator of whether users can control an HTML document, as there are numerous user agent and assistive technology pairings a user could use to access it. Setting the property means that the specified control method(s) are compatible with the resource.			
fullKeyboardControl Users can fully control the resource through keyboard input.	–	532 0# Accessibility technical details Example: 532 0#\$a Users can fully control the	

Schema.org	ONIX	MARC21	UNIMARC
		resource through keyboard input.	
fullMouseControl Users can fully control the resource through mouse input.	–	532 0# Accessibility technical details Example: 532 0#\$a Users can fully control the resource through mouse input.	
fullSwitchControl Users can fully control the resource through switch input.	–	532 0# Accessibility technical details Example: 532 0#\$a Users can fully control the resource through switch input.	
fullTouchControl Users can fully control the resource through touch input.	–	532 0# Accessibility technical details Example: 532 0#\$a Users can fully control the resource through touch input.	

Schema.org	ONIX	MARC21	UNIMARC
fullVideoControl Users can fully control the resource through video input.	–	532 0# Accessibility technical details Example: 532 0#\$a Users can fully control the resource through video input.	
fullVoiceControl Users can fully control the resource through voice input.	–	532 0# Accessibility technical details Example 532 0#\$a Users can fully control the resource through voice input.	
accessMode The accessMode property describes the ways information is encoded in the resource, but it does not tell users if all the specified modes are necessary to consume the information or if	–	341 - Accessibility Content \$a (repeatable) 341 \$a only 341\$a[access mode]\$2sapdv	

Schema.org	ONIX	MARC21	UNIMARC
only individual modes or combinations are necessary (e.g., in a book with audio content, the ability to read textual content may only be necessary if transcripts are provided).			
auditory Indicates that the resource contains information encoded in auditory form.	—	Accessibility Content 341 0# \$a auditory \$2 sapd v	
chartOnVisual Indicates that the resource contains charts encoded in visual form.	List: 81: Code 19: Figures, Diagrams, Charts	Content Type 336 ## \$a still image \$2 rda content 532 - Accessibility Note (No Display Constant generated) 532 8# Resource contains charts encoded in visual form.	

Schema.org	ONIX	MARC21	UNIMARC
		341 - Accessibility Content 341 \$avisual\$2sapdv	
chemOnVisual Indicates that the resource contains chemical equations encoded in visual form.	—	532 - Accessibility Note (No Display Constant generated) 532 8# Resource contains chemical equations encoded in visual form. 341 - Accessibility Content Example 341\$avisual\$2sapdv	
colorDependent Indicates that the resource contains information encoded in such that color perception is necessary.	—	Accessibility Note (Accessibility deficiencies) 532 2# \$aIndicates that the resource contains information encoded in such that color perception is necessary.	

Schema.org	ONIX	MARC21	UNIMARC
diagramOnVisual Indicates that the resource contains diagrams encoded in visual form.	List: 81; Code 19: Figures, Diagrams, Charts	Accessibility Note (No Display Constant generated) Example: 532 8# \$a Resource contains diagrams encoded in visual form. 341 Accessibility Content Example: 341\$avvisual\$2sapdv	
mathOnVisual Indicates that the resource contains mathematical notations encoded in visual form.	—	Accessibility Note (No Display Constant generated) 532 8# \$a Resource contains mathematical notations encoded in visual form.	

Schema.org	ONIX	MARC21	UNIMARC
		Accessibility Content 341\$avisual\$2sapdv	
musicOnVisual Indicates that the resource contains musical notation encoded in visual form.	–	Accessibility Note (No Display Constant generated) 532 8# \$a Resource contains music encoded in visual form. Accessibility Content 341\$avisual\$2sapdv	
tactile Indicates that the resource contains information encoded in tactile form. Note that although an indication of a tactile mode often indicates the content is encoded using a braille system,	–	Accessibility Content 341 0#\$atactile\$2sapdv	

Schema.org	ONIX	MARC21	UNIMARC
this is not always the case. Tactile perception may also indicate, for example, the use of tactile graphics to convey information.			
textOnVisual Indicates that the resource contains text encoded in visual form.	–	Content type Accessibility Note (No Display Constant generated) 532 8# \$a Resource contains text encoded in visual form. Accessibility Content 341\$avvisual\$2sapdv	
textual Indicates that the resource contains information encoded in textual form.	List: 81; Code: 10 combined with List: 196; Code: 10 means all text is actual text. Note that List: 81; Code: 10 on its own (without List: 196;	341 Accessibility Content \$a Example: 341 0#\$atextual\$2sapdv	

Schema.org	ONIX	MARC21	UNIMARC
	Code: 10) admits the possibility that the "text" is inaccessible because it is an image of text.		
visual Indicates that the resource contains information encoded in visual form.	List: 81; Code: 07: Still images / graphics or Code: 18: Photographs or Code: 19: Figures, diagrams, charts, graphs or Code: 12: Maps and/or other cartographic content	Accessibility Content 341\$avisual\$2sapdv	
accessModeSufficient (vocabulary list follows) A list of single or combined accessModes that are sufficient to understand all the intellectual content of a resource. Although the access modes indicate how the information is encoded in its default form, knowing the encoding only describes one possible perceptual pathway through the content. For example, a book with textual and visual content will,	ONIX crosswalks are for instances where accessModeSufficient includes this vocabulary entry alone; combinations may occur but are more difficult to crosswalk	Accessibility content 341 0#\$a[mode] 341 0#\$b-\$e[accessibility feature] Mode of <u>alternative</u> access is embedded in subfields \$b-\$e, but subfield must contain a term for an accessibility feature \$bTextual assistive features \$c Visual assistive features \$dAuditory assistive features	

Schema.org	ONIX	MARC21	UNIMARC
at the most basic level, require an individual who can read text and view images. The author of the content may, however, provide alternatives to a specific access mode that allow the content to be wholly consumed in another manner. The use of alternative text and extended descriptions, for example, can allow a user who cannot perceive visual content to read all the information in textual form. In such a case, a work with textual and visual access modes could have both a textual and visual sufficient access mode <i>and</i> a purely textual access mode — because there are text equivalents for the visual content. Specifying there is an additional textual-only pathway through the content allows users of screen readers, for		\$eTactile assistive features	

Schema.org	ONIX	MARC21	UNIMARC
example, to recognize that the content will be readable by them. It is for this reason that content that has multiple access modes may have one or more sets of sufficient access modes: each listing of sufficient access modes provides users with one possible combination of reading modes that allow the content to be read in full.			
auditory Indicates that auditory perception is necessary to consume the information	List: 81; Code:01 Product content type Used with • <PrimaryContentType> <x415> • <ProductContentType> <b385> Codelist order groups together similar codes 81 03 Audiobook 81 02 Performance – Spoken word	Would only map to 341 if an accessibility feature were present 341 0#\$aauditory \$b-\$e[accessibility feature term]\$2sapdv 341 0#\$d[accessibility feature term] \$2sapdv Content type	

Schema.org	ONIX	MARC21	UNIMARC
	81 13 Other speech content 81 03 Music recording 81 04 Other audio 81 21 Partial performance – Spoken word 81 22 Additional audio content not part of main work 81 23 Promotional audio for other book product 81 06 Video 81 26 Video recording of a reading 81 Potentially any video content may contain Audio content	336 ###\$aperformed music\$2rdacontent 336 ###\$asounds\$2rdacotent 336 ###\$aspoken word\$2rdacontent	
tactile Indicates that tactile perception is necessary to consume the information.	–	Would only map to 341 if an accessibility feature were present 3410#\$atactile\$b-\$e[accessibility feature term]\$2 sapdv 3410#\$e[accessibility feature term]\$2 sapdv	

Schema.org	ONIX	MARC21	UNIMARC
		Content type 336 ##\$atactile image\$2rdacontent 336 ##\$atactile notated music\$2rdacontent 336 ##\$atactile notated movment\$2rdacontent 336 ##\$atactile text\$2rdacontent 336 ##\$atactile three-dimensional form\$2rdacontent 336##\$acartographic tactile three-dimensional image\$2rdacontent	
textual Indicates that the ability to read textual content is necessary	List: 81; Code: 10 combined with List: 196; Code: 10 means all text is actual text. Note that List: 81;	341 Accessibility Content 0#\$a example:	

Schema.org	ONIX	MARC21	UNIMARC
to consume the information. Note that reading textual content does not require visual perception, as textual content can be rendered as audio using a text-to-speech capable device or assistive technology.	Code: 10 on its own (without List: 196; Code: 10) admits the possibility that the "text" is inaccessible because it is an image of text. List: 81: Code:01 Product content type Used with • <PrimaryContentType> <x415> • <ProductContentType> <b385> Codelist order groups together similar codes 81 10 Text (eye-readable) Readable text of the main work: this value is required, together with applicable <ProductForm> and <ProductFormDetail> values, to designate an e-book or other digital or physical product whose primary content is eye-readable text	341 0#\$atextual\$2sapdv Content type 336 ## \$text\$\$2rdacontent	

Schema.org	ONIX	MARC21	UNIMARC
visual Indicates that visual perception is necessary to consume the information.	81 06 Video 81 26 Video recording of a reading 81 27 Performance –visual 81 24 Animated / Interactive illustrations 81 25 Narrative animation 81 28 Other Video 81 29 Partial performance – Video 81 30 Additional video content not part of main work 81 31 Promotional video for other book product	Would only map to 341 if an accessibility feature were present 341 0#visual\$b-\$e[accessibility feature term]\$2sapdv 341 0#sc[accessibility feature term]\$2sapdv Content type 336 ##\$astill image\$2rdacontent 336 ##\$atwo-dimensional moving image\$2rdacontent 336 ##\$athree-dimensional moving image\$2rdacontent 336 ##\$acartographic image\$2rdacontent	

Schema.org	ONIX	MARC21	UNIMARC
		336\$acartographic three-dimensional form\$2rdacontent 336\$acartographic moving image\$2rdacontent 336\$anotated movement\$2rdacontent 336\$anotated music\$2rdacontent 336\$aperformed movement\$2rdacontent	
accessibilitySummary A human-readable summary of specific accessibility features or deficiencies, consistent with the other accessibility metadata but expressing subtleties	List: 196: Code: 00: Accessibility Summary <ProductFormFeature Description> contains a short explanatory summary of the accessibility of the product, consistent with the more specific	532 0# Accessibility technical details 532 1# Accessibility features	231 ##\$i00\$2onix196

Schema.org	ONIX	MARC21	UNIMARC
such as "short descriptions are present but long descriptions will be needed for non-visual users" or "short descriptions are present and no long descriptions are needed." The accessibilitySummary property is a free-form field that allows authors to describe the accessible properties of the resource. As a result, it does not have an associated vocabulary.	conformance and feature details provided. The summary should note both the accessibility features provided and any potential deficiencies. More detailed information may be provided in an external file using codes 94–96. For use in ONIX 3.0 only	532 2# Accessibility deficiencies 532 8# Accessibility note (General)	
Human-readable text	If present, include information from List: 196; Codes 95, 96, 98, and 99 (links for further information about accessibility)	Would not map	