BISG POLICY STATEMENT 11-01

BEST PRACTICES FOR IDENTIFYING DIGITAL PRODUCTS

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POLICY SCOPE AND OBJECTIVE

This BISG Policy Statement on recommendations for identifying digital products is applicable to content intended for distribution to the general public in North America but could be applied elsewhere as well. The objective of this policy statement is to clarify best practices and outline responsibilities in the assignment of ISBNs to digital products in order to reduce confusion in the marketplace and the possibility of errors.

This BISG policy statement has been endorsed by the following organizations:

- BookNet Canada, a not-for-profit agency dedicated to innovation in the Canadian book supply chain
- National Information Standards Organization (NISO), to which content publishers, libraries, and software developers turn for information industry standards that allow them to work together
- Book Industry Communication (BIC), an independent organization set up to promote supply chain efficiency in all sectors of the book world through e-commerce and the application of standard processes and procedures
- IBPA, the Independent Book Publishers Association
- U.S. ISBN Agency, the official source for ISBNs in the United States

POLICY IMPLEMENTATION

This policy statement was originally published in December 2011. At that time, BISG recommended implementation of the policy recommendations as soon as practical, with a target for new product introductions of no later than March 2012. An update in 2026 reflected additional considerations to describe digital products with differing accessibility features.

BACKGROUND

In spring 2010, BISG's Identification Committee created the Identification of E-Books Working Group to research and gather data around the practice of assigning identifiers to digital content throughout the U.S. supply chain. The specific mandate of the working group was to gather a true picture of how the U.S. book supply chain was handling ISBN assignments, and then formulate best practice recommendations based on this pragmatic understanding. Companies that participated in this working group can be found in Appendix C of this policy statement.

Following initial publication of this policy statement in December 2011, BISG's

Identification Committee spent several months reviewing the application of these recommendations across the book industry. As part of this process, committee members requested and received feedback on how they might clarify the recommendations made within the policy statement. A revision was published in 2013. In 2026, BISG's metadata committee reviewed and updated this policy to reflect current market requirements, particularly with respect to product accessibility.

BISG found that the problems addressed in 2013 most often resulted from a lack of communication. In many cases, trading partners acknowledged taking the information provided by publishers and doing whatever manual manipulation was needed to get a job done. In many cases, they did not inform publishers of how they were addressing identification issues. In an environment as complex and evolving as the digital supply chain, this is not ideal. This policy stresses the ongoing need for direct communication among trading partners.

DEFINITIONS

For the purpose of this policy statement, the following definitions have been used. BISG recognizes that these definitions may not exactly match those used within a particular company.

BOOK

A book is a package including textual and/or illustrative content, physical or digital, that is made available to the public, whether for sale or gratis, by a publisher, either direct or via one or more intermediaries. For the purposes of this policy statement, the definition of *book* is limited to its role as a product within the supply chain.

PHYSICAL BOOK

A combination of title, contributor(s), publisher, content, edition number or year of an annual edition, physical medium, and format normally determines a unique physical book product.

EBOOKS AND DIGITAL AUDIOBOOKS

A combination of title, publisher, content, edition, file format (see page 11), and usage constraints normally determines a unique digital book product (ebook or audiobook).

CONSUMER

A consumer is a member of the general public who initiates a final transaction (buy, borrow, stream, etc.) from a trading partner (retailer, library, etc.).

IDENTIFIER

Generally a sequence of alpha-numeric characters, an identifier is associated with a

unique physical or digital book product, unambiguously differentiating one book from another across the publishing supply chain. An identifier forms a link between the metadata created to describe a product and the product itself. Examples of book industry identifiers include the following:

ISBN (INTERNATIONAL STANDARD BOOK NUMBER)

An ISBN (International Standard Book Number – ISO 2108:2017) is the identifier used for a physical or digital book product. An ISBN identifies the registrant as well as the specific title, edition, and format of the book. It is used within the supply chain for ordering, listing, sales tracking, and stock control purposes. There are applications of the ISBN outside the supply chain that are beyond the scope of this policy statement.

GTIN-13 (EAN-13)

A GTIN-13, which was formerly and is still commonly known as an EAN-13, is a 13-digit identifier. It is used internationally and governed by the global standards organization GS1. The ISBN is a 13-digit GTIN that includes the 978 and 979 prefixes, as in 978xxxxxxxxx, which GS1 reserved for use by the book industry worldwide. The ISBN standard is completely compatible with the GTIN standard.

Most GTIN prefixes are assigned to specific countries. The prefix sequence 060 – 139 is assigned to "GS1 US". The 978 and 979 prefixes used by the book industry are assigned to an entity called Bookland, a fictitious country name that reflects how the book industry participates globally rather than on a country-by-country basis in the GS1 system. Within the 979 prefix range, 979-1 to 979-9 prefixes are to be used for books. The 13-digit GTIN code on a book–the ISBN–is sometimes referred to as a Bookland EAN, although this description is less widely used than was the case when the policy was first drafted.

The 979-0 prefix is the International Standard Music Number (ISMN). It can be used only to be identify sheet music. Identifiers beginning with 979-0 are sometimes described as "Musicland", similar to the way that 978 and other 979 prefixes are described as "Booklan".

See http://www.gs1.org/barcodes/support/prefix_list at the GS1 website for a complete list of GTIN prefix assignments.

PROPRIETARY IDENTIFIER

The term *proprietary identifier* is used throughout this document as an alternative or supplement to using an ISBN to identify a digital book. For the purposes of this document, a proprietary identifier is defined as a unique identifier for a product that is maintained by a participant in the supply chain for internal use only. A proprietary identifier is not a publicly traded identifier.

There are no standard requirements for a proprietary identifier in terms of its length or makeup. One example of a proprietary identifier is the Amazon Standard Identification Number (ASIN) used internally by Amazon.com for every product it sells. Many supply chain participants use a series of 13-digit GTINs specifically reserved for internal,

proprietary use.

PROPRIETARY EANS

Within the numbering scheme for GTINs, some prefix sequences have been reserved for what GS1 describes as "Restricted distribution (MO defined)." This means that these prefix sequences will never be assigned to a specific country and are not to be used publicly. Rather, these prefix sequences are to be used internally, as proprietary identifiers.

One such prefix sequence is 020 – 029. Many companies already use 13-digit EANs with prefixes in this sequence to identify digital books within their own systems. It is important that **these identifiers should never be communicated publicly to other trading partners**. If two companies are using the same prefix sequence, there is a chance that there will be duplication in the marketplace—one number used to identify two different products.

METADATA, IDENTIFIERS & SALES REPORTING

MAINTAINING ACCURATE PRODUCT METADATA

It is critical that publishers maintain and disseminate accurate metadata about their digital books when releasing digital books to the supply chain. The best way to ensure that product metadata is communicated and maintained through the supply chain is for the metadata to be associated with a valid unique identifier.

To maintain an official link by which metadata, invoices, payments and sales information can be communicated across a supply chain, a publisher should always assign a unique ISBN to serve as the identifier of each unique digital book product it releases. As this is the beginning of the supply process and represents the root form of the content, it is important at this stage that the publisher use an official ISBN rather than any kind of proprietary identifier. Any trading partner that makes the digital book available further down the supply chain without alteration should maintain the publisher-assigned ISBN.

PUBLISHER- VS. TRADING-PARTNER-ASSIGNED IDENTIFIERS

Under the International ISBN Agency's guidelines, publishers' trading partners are permitted to assign ISBNs to digital books when and if the publisher chooses not to assign an ISBN. The trading-partner assigned ISBN can be from a pool of publisher-supplied ISBNs that are made available to the vendor or from a pool of ISBNs the trading partner has obtained on its own. Trading partners may choose to assign non-ISBN proprietary identifiers to different versions of the same digital book for strictly internal use. Examples of appropriate proprietary identifiers include the Amazon Standard Identification Number (ASIN) and certain 13-digit EANs. (See the "Definitions" section of this document for more information.)

To track ordering, listing, and sales across the supply chain, a publisher should assign a unique ISBN to each separate digital book that will eventually be made available to

the consumer, regardless of whether the publisher, a service provider or a trading partner is creating the final version of the digital book. Trading partners may assign and report proprietary identifiers as needed, in conformance with this policy statement. The *aggregated* data should be reported to the publisher using the publisher-assigned ISBN.

TRACKING SALES

Any trading partner assigning a proprietary identifier must maintain the link to the publisher-assigned ISBN so that sales data and other information can be reported to the publisher based on this publisher-assigned ISBN.

SIX GENERAL CONSIDERATIONS FOR ISBN ASSIGNMENT

1. ISBNs are assigned, not created. One ISBN registration agency per country, or community, is designated by the International ISBN Agency to assign and distribute ISBNs to the publishers and self-publishers in that area. Any number identified as an ISBN must be a valid ISBN obtained from an officially sanctioned ISBN registration agency such as RR Bowker, the United States ISBN Agency, or Library and Archives Canada, the Canadian ISBN Agency. At no time should a random or unsanctioned number be created and identified as an ISBN by any member of the supply chain. Further guidance on ISBN best practices, including instances in which revised or updated versions of a book should be accompanied by a new ISBN, can be found at the web site for the International ISBN Agency.

2. A digital book must not be assigned the same ISBN as the same book in physical format. Even if a book is no longer in print, the ISBN assigned to the book cannot be reused for the digital book; a unique ISBN must always be assigned to the digital book. Vendors will reject a digital book if they discover the ISBN was previously assigned to a different product.

3. ISBNs assigned to digital books should be labeled "ISBN," not "eISBN."There is no such standard as an eISBN, nor is this the proper way to differentiate the digital book format.

4. Digital books, like physical books, should never be identified with a number that is in the same format as an ISBN or be labeled "ISBN" unless that number is a legitimate ISBN issued by an official ISBN registration agency, such as RR Bowker in the U.S. or Library and Archives Canada in Canada.

5. Different digital formats of the same digital book should be assigned different ISBNs. The features of an EPUB file differ from those of a PDF file, even if the content is the same. Different formats are rendered differently on various reading systems, and accessibility features may differ, making it important to distinguish

between different file formats for both platforms and consumers.

6. Identical digital books (that is, EPUB versions being sold on various vendor sites) should carry the same ISBN. There must be a differentiating factor (or factors) in the digital book's content, file format, usage constraints, or metadata to justify the assignment of a different ISBN.

THREE FACTORS: FORMAT, CONTENT & USAGE CONSTRAINTS

To support ordering, listing, payment, delivery, and sales tracking across the supply chain, separate identifiers should be assigned to unique digital books. The three major factors that inform the assignment of a separate identifier for a digital book are: file format, content and functionality, and usage constraints. In all cases, the identifier should be an ISBN. An internal proprietary identifier may be assigned by a trading partner for their internal use.

DIGITAL FILE FORMATS

Digital books of differing file formats should be assigned different identifiers.

Different digital book file formats are similar to different physical book formats (for example, hardcover and paperback) and should follow the same rules regarding identifier assignment. In the case of digital books, however, it is not always necessary that each identifier be an ISBN. In many cases, a trading-partner-assigned proprietary identifier works just as well. If a proprietary identifier is used, however, it is important that neither it nor the product itself be made public in the supply chain.

Common examples of different digital book file formats include, but are not limited to:

- **EPUB** – an open standard for e-books maintained by the W3C
- **.ibook** – a proprietary format for e-books from Apple that, although based on the EPUB format, contains differences in the CSS tags that make it incompatible with the EPUB open standard format
- **.kfx** – a proprietary format, created by Amazon to coincide with the release of the Kindle Fire in late 2011, that supports a subset of HTML5 and CSS3 features along with additional nonstandard features
- **PDF** – an ISO-standard file format available free of charge from the PDF Association that traditionally does not support reflow of text to fit the screen width or size

EXAMPLE 1: DEVICE-SPECIFIC DIGITAL BOOK FORMATS

A publisher assigns a unique ISBN to a digital book in EPUB file format. The publisher makes the EPUB version available to consumers on its own website without further modification. The publisher also sends the EPUB file to a trading partner who alters it to create a new file format that renders on a specific device or software program. Amazon.com does this when it takes an EPUB file format and converts it to a .kf8 file format for use on its readers.

In this case, the trading partner has created a separate, device-specific file format different from the publisher's EPUB file. At the discretion of the trading partner, this separate file format may benefit from an internal proprietary identifier. The trading partner should communicate sales to the publisher based on the publisher-assigned ISBN provided for the EPUB file format.

APPLICATION OF DRM

When the application of digital rights management (DRM) software is part of the transaction with the consumer (as frequently happens in the U.S.), it does not constitute the creation of a new file format as the term is being used in this policy statement. In this case, DRM is not a file format; it is a wrapper around a product. In other words, an EPUB file with DRM software applied is still an EPUB file, and a PDF file with DRM applied is still a PDF file. In most cases, DRM is not part of the product; it is part of the transaction with the consumer. An ISBN is a product identifier, not a transaction identifier.

EXAMPLE 2: THE APPLICATION OF DRM

A publisher assigns a unique ISBN to a digital book in EPUB file format. The publisher makes the EPUB version available to consumers on its own website without further modification. The publisher also sends the EPUB file to several different trading partners. Each trading partner prepares the EPUB file wrapped in the DRM application specific to the limitations of the device that the consumer will use to read the digital book.

In this case, the application of particular DRM software as part of the transaction to the consumer does not create or constitute a new digital book and therefore does not call for the assignment of a unique identifier. The publisher-assigned ISBN should be used.

CONTENT AND FUNCTIONALITY

Digital books of differing content and functionality should be assigned different identifiers. If two digital books are created, one an exact textual reproduction of a physical book and the other an enhanced version that includes video, audio, etc., then the two digital books are different products; each requires a different identifier.

EXAMPLE 3: ENHANCED DIGITAL BOOKS

From a publisher's non-enhanced digital book, the publisher or a downstream trading partner creates an enhanced digital book that includes special animation. The two digital books are now two different products with different content and functionality. Because these are different products, the publisher should track sales separately. To do that, it must assign different ISBNs to each product.

COMPONENTS AND/OR PARTS

Components or parts of a digital book should be assigned different identifiers.

The International ISBN Agency's guidelines state that if a text-based component is salable (that is, made available for sale to the public) it can be assigned an ISBN. There is no limitation on the size or number of pages of the component. It can be a section of a book, a chapter, or a poem. The only requirement is that it be a monographic textual work—a complete, one-off publication. Publishers and trading partners may choose to use proprietary identifiers, including DOIs (see Appendix A) in place of ISBNs to identify components or parts. Publishers should assign an ISBN when the identifier is going to be publicly communicated among trading partners or consumers.

The use of DOIs to identify chapters is supported, as long as the individual chapters are sold exclusively by the publisher (i.e., they do not enter the supply chain). If they are sold by trading partners, each chapter should have its own ISBN. As an example, a ten-chapter book can require assignment of 11 ISBNs, including one for the whole book.

EXAMPLE 4: COMPONENTS OR PARTS

Scenario 1. A publisher decides to sell individual short stories from a published collection of the stories. The publisher will make the individual stories available for sale on a commercial retailer website.
In this case, a unique ISBN should be assigned to each individual story since the identifiers are meant to be communicated publicly between trading partners to differentiate complete one-off publications and may be made visible to the consumer.

Scenario 2. A publisher decides to sell individual short stories from a published collection of the stories. The publisher elects to sell the individual stories only through its own website, directly to consumers.
In this case, unique ISBNs need not be assigned since the publisher is not communicating the identifiers outside of its own closed system.

Scenario 2 also applies to the education market, where many different components might be collected together to create a custom textbook, for instance. The publisher can assign ISBNs to these components if it so chooses for its own internal purposes, but it is not necessary.

And the same Scenario applies in academic scholarly publishing, where book chapters may be made available as individual products. If a chapter enters the supply chain, it should be assigned a unique ISBN, separate from the ISBN of the book, and separate from ISBNs assigned to other chapters. If however, the chapter is made available exclusively from a single source (generally the publisher itself), a proprietary identifier – or commonly a DOI – is sufficient. See Appendix A for more information on the use of DOIs. For more information on identifiers, see BISG's Guide to Identifiers, downloadable at TK.

Scenario 3. Specifying accessible features: Digital file formats offer an important way to provide users with features that make it possible to access content that might have been difficult or impossible to consume in other formats. Those features include navigation (table of contents or an index), providing a single logical reading order, offering alternative text descriptions of images, illustrations, and formulae, print-equivalent page numbering,

language tagging, and more. A full list of accessibility metadata fields supported by ONIX can be found in code list 196, which can be accessed at: https://ns.editeur.org/onix/en/196

Regulations increasingly require publishers and their supply chain partners to describe accessibility features in metadata that is provided in advance of purchase. These regulations include the European Accessibility Act (EAA) and an update to the Title II requirements published under the Americans with Disabilities Act (ADA).

Not all digital book formats can contain the same accessibility features. Purchasers need to know the accessibility of the books they are purchasing. Because accessibility features vary based on the format of the digital file, a publisher should consider assigning different ISBNs to file formats with different accessibility features. Doing so allows the publisher to use its metadata to fully describe the accessibility features of a given format, clearly communicating to the marketplace the features of the format they are buying.

EXAMPLE 5: ACCESSIBILITY FEATURES

Different files may support different aspects of accessible content. For example, a PDF may not support reflowable content, while an EPUB file with identical contact is able to resize and reflow content to suit a consumers needs. As well, two EPUB files with identical content may be published with different accessibility features.

Because metadata for a single ISBN can reflect only one set of claims about accessible features, publishers offering content with differing accessibility features should assign unique ISBNs to each file. Metadata about each ISBN should accurately reflect the differences in accessibility features available to the consumer.

WEBPAGES, DATABASES, GAMES, AND/OR MUSIC

According to the International ISBN Agency's guidelines, updatable databases, web pages, games or music cannot be assigned an ISBN. Other standard identifiers, like the ISSN (International Standard Serial Number) or the ISMN (International Standard Music Number), may be applicable to such content. 13-digit GTINs can also be used for this purpose. See the "Definitions" section of this document for more information about 13-digit GTINs. For more on the ISSN, see http://www.issn.org/2-22638-ISSN-and-electronic-publications.php. Please see http://www.ismn-international.org for more on the ISMN.

USAGE CONSTRAINTS

Digital books with different usage constraints may be assigned different identifiers.

If a digital book is made available with different usage constraints (for example, adjusting the usage settings so that printing is allowed in the version going to the education market, but not in the version going to the retail market), each version may be assigned a different identifier.

It is not always necessary that each identifier be an ISBN. A trading partner-assigned

proprietary identifier can work just as well, as long as reporting for proprietary identifiers rolls up to a publisher-assigned ISBN.

EXAMPLE 6: PURCHASE VS. RENT

A publisher grants a retailer permission to both sell and rent its digital book. The publisher decides whether to provide different ISBNs for the purchase and rental versions of the same digital book.

If the publisher supplies only one ISBN, the trading partner should apply the publisher's ISBN to the purchase version of the digital book and may assign their own Identifier to the rental version.

Under sales agreements that permit retailers to offer both a purchase and a rental version of the digital book, the retailer sometimes also offers an option for a consumer to upgrade a rental to a purchase version for the difference in price between the two versions. In this case, a different identifier should be assigned to the upgrade version.

EXAMPLE 7: PRINT VS. CAN'T PRINT

A publisher assigns a unique ISBN to a digital book in EPUB format. The publisher sends the EPUB file to multiple trading partners that will make the digital book available to consumers. The usage constraints supplied in the metadata sent by the publisher to the trading partners indicate that the EPUB is not printable.

Scenario 1. A trading partner serving the general trade market prepares the EPUB file according to the publisher's guidelines and sells it to the consumer so that printing of any part of the content by the consumer is forbidden. In this case, the publisher-assigned ISBN should be used.

Scenario 2. With permission of the publisher, a trading partner serving the academic market modifies the usage constraints of the publisher's EPUB file so that printing content by a consumer is possible but restricted to a certain percentage, or section, of the digital book.

In this case, these manipulations of rights significantly change the supply chain metadata describing usage constraints of the digital book to consumers. Two distinct products have been created, each requiring a different identifier. The publisher should assign a separate ISBN.

EXAMPLE 8: CONSUMER PURCHASING VS. PATRON BORROWING

A publisher assigns a unique ISBN to a digital book in EPUB format. The publisher intends to send the EPUB file to multiple trading partners, some of which will make the book available for sale to consumers and some of which will make the book available to libraries which will in turn make it available for loan to library patrons.

Appendix B addresses "Usage Constraints Expressed in ONIX 3.0". Since April 2016 (ONIX revision 3.0.3), a single ONIX record can be used to describe opposite usage constraints

against a single identifier—for example, a set that includes "perpetual license" and a set that includes "time-limited to one month" (that is, a rental).

Scenario 1. The publisher sends the EPUB file to a retail partner who applies DRM software, such as Adobe Digital Editions or FairPlay, as part of the transaction with the consumer. The set of metadata used to describe the product indicates that the EPUB file is sold under a "perpetual license." The retail partner applies DRM software, such as Adobe Digital Editions or FairPlay, which enables the digital book to be used by the consumer under perpetual license. In this case, the publisher-assigned ISBN should be used.

Scenario 2. The publisher also sends the EPUB file to a third-party digital fulfillment company serving the library market (for example, OverDrive). The publisher uses the same ISBN as in Scenario 1 with the same metadata except that the usage constraints section is changed from "perpetual license" to a specific number of loans to consumers.[1] The fulfillment company applies constraints that enable the digital book to be loaned to a library patron for an agreed-upon amount of time and a certain number of loans. In this case, the publisher-assigned ISBN should be used.

NOTE: In some cases, the publisher may elect to assign a different ISBN to the product that will be loaned by a library. Whether to assign a different ISBN in this case will depend on the publisher's internal processes. A third-party should not change the ISBN the publisher supplies just because the digital book is licensed to be lent as opposed to sold.

[1]The case described here is a bit simplified. Many publishers would probably handle this through a vendor agreement unless they were using different ISBNs for library editions. It is most likely that the fulfillment company would put the usage rights in the ONIX file going to the library, since they are the vendor for the library.

EXAMPLE 9: DEVICE-DEPENDENT USAGE CONSTRAINTS

A digital book is sold to a consumer through one retail channel platform that supports the publisher selected option that allows the consumer to "lend to a friend, once, for up to one week." The same digital book is sold through a separate retail channel platform that is not yet capable of supporting the publisher-selected option to lend.

In both cases, the publisher-assigned ISBN should be used. As long as usage rights as regulated by device capabilities are clear to consumers (and as long as the retailer controls the experience through its own platform), different ISBNs are not necessary. In other words, just because one retailer's platform doesn't yet support lending doesn't mean they have created a unique digital book.

For more information on describing usage constraints in ONIX, see Appendix B.

APPENDIX A: DEFINING THE DOI AND ITS USE IN IDENTIFYING DIGITAL PRODUCTS

A DOI is a unique, persistent digital identifier of an object—digital or physical. The DOI System enables resolution services on the Internet for DOIs. Simply put, the DOI System provides a persistent link (most commonly a URL) to share where an object can be found, typically including standard metadata for that object. A DOI consists of a string of characters with a prefix, which is assigned to a particular organization, and a suffix, which is unique within that prefix.

Like the ISBN, the DOI is an ISO standard (ISO 26324:2025). Like ISBNs, DOIs are assigned by registration agencies. Different DOI registration agencies provide different services for different communities. These services can include search, discovery, maintenance, multiple resolution, linking metrics, and usage data, to name a few.

DOIs and ISBNs do not compete as digital identifiers; they are complementary. The DOI is an entirely different kind of identifier from the ISBN. In other words, the two identifiers do not have an either/or binary relationship. In the past, the Association of American Publishers (AAP), which was instrumental in creating the DOI, recommended that DOIs for books incorporate ISBNs into the suffix string (*ie* an ISBN-A), though current DOI best practices encourage publishers to create DOIs that are as short as possible.

A well-known application of the DOI System is reference linking in scholarly publications, run by CrossRef. Although CrossRef is best known for providing DOIs that publishers assign to journal articles, millions of its DOIs identify book content. DOIs also identify datasets, conference papers, dissertations, and other scholarly documents. Some publishers assign DOIs to individual components of a document. So, when an element is significant and there is a reason to reference it on its own, there can be a different DOI for a book series, another for a book within that series, and individual DOIs for each chapter in that book, for each table, and each figure.

Other DOI registration agencies work in different domains. Bowker has explored using DOIs to make actionable ISBN-As to standard supply chain metadata. More information is available at https://www.doi.org/the-identifier/resources/factsheets/doi-system-and-the-isbn-system.

The DOI System provides both a technical and social infrastructure for the use of persistent, actionable identifiers. DOIs are not just about strings of characters and redirecting links to current URLs through servers on the Web; they are also about communities agreeing to the rules about how they will be used.

APPENDIX B: USAGE CONSTRAINTS EXPRESSED IN ONIX 3

ONIX 3 enables the description of usage constraints associated with a product.

In ONIX 3, the publisher can specify (*inter alia*) limitations on printing of the content, sharing of the product across multiple devices, and lending of the product to another device or device owner, and any limitation on the term or period of the license. In addition, the publisher can state whether these limitations are enforced by any technical protection measures (DRM). As an example, a particular product may have the following constraints:

- Time-limited to one month (i.e., it's a rental rather than a perpetual license)
- Not printable
- 10% copy and paste per month
- Sharable across up to three devices
- Lendable to a friend once, for up to a week

The element <EpubTechnicalProtection> and the repeatable <EpubUsageConstraint> composite can be used to describe this case. The above set of constraints would require five repeats of the composite. The ONIX code list for the element is really the effective limit on the number of repeatable elements that can be included in a single record.

APPENDIX C: ORGANIZATIONS CONTRIBUTING TO THE 2011 WORKING GROUP

1. Penguin Group
2. Apex CoVantage
3. Baker & Taylor
4. Book Industry Communication (BIC)
5. BookNet Canada
6. Cambridge University Press
7. Cengage Learning
8. CrossRef
9. Dial-A-Book
10. EDItEUR
11. Firebrand Technologies
12. Hachette Book Group
13. HarperCollins Publishers
14. Harvard University Press
15. Houghton Mifflin
16. Independent Publishers Group
17. Ingram Content Group
18. International ISBN Agency
19. Kobo
20. Lightspeed LLC
21. Macmillan
22. McGraw-Hill
23. Nielsen
24. NISO
25. Oxford University Press
26. Pearson
27. Perseus Books Group
28. Quad/Graphics
29. Random House
30. RoyaltyShare
31. RR Bowker
32. RR Donnelley
33. Simon & Schuster
34. Sourcebooks
35. Taylor & Francis
36. United Methodist Publishing House
37. University of California Press
38. U.S. ISBN Agency
39. Wolters Kluwer Health Medical Research
40. Yale University Press
41. YBP Library Services