

# ISBN: A HISTORY

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*While this may be the last printed edition of ISQ, ironically, printed books have been enjoying something of a resurgence over the last year. Reports in early 2016 in the UK stated that sales of print books had increased for the first time in four years while, at the same time, e-book sales suffered their first drop in seven. Before getting too carried away, it should be pointed out that the increase was 0.4 percent and the fall 1.6 percent, so these are hardly runaway trends. And yet, is it a sign that the market is maturing and still more proof that print and digital will continue to co-exist for the foreseeable future?*



While smartphones, tablets, and e-readers are fixtures of our lives today, November 2007 will surely be seen as one of the pivotal moments in the history of digital books. Early types of e-reading devices had launched as early as 1992 with the Sony Data Discman. There were other releases too, from Palm, Rocket eBook, Softbook, and Cybook (to name just a few) throughout the 1990s and early 2000s, yet sales remained small, with the market remaining niche at best and practically invisible to the commercial mainstream.

Along with the diversity of early e-reading devices, there was also an ever-growing number of e-book formats. It was a time of experimentation; innovation was followed almost invariably by failure as many early pioneers closed or scaled back their digital operations, unable to generate sufficient sales to compensate them for their investment and allow them the space to continue developing new products. With costly failures and no clear winners, it seemed a triumph of hope over experience that new entrants continued to believe the market held real promise. The arrival of the first Kindle in 2007 achieved something different though—the device essentially democratized digital reading. The e-reader went from being a gadget attractive mainly to techno geeks to suddenly selling in (comparatively) spectacular numbers. Not only sales of devices, but also of e-books themselves, were starting to grow at a quite exponential rate.

Standards that support and encourage the free flow of trade can never be immutable. They must remain clearly intelligible, serve a defined purpose, and be rooted in reality, yet not be so unbending that they lose ground. Standards that don't respond to, and change with, external developments risk becoming unused and forgotten. ISBN (International Standard Book Number) is an international standard first published under the auspices of ISO (the International Organization for Standardization) in 1972. Right from the introduction of the very earliest audiobooks, microforms, and CD-ROMs, ISBN has not been a standard only for printed materials, though of course, print will always be important.

ISBN has remained abreast of developments in publishing and technology and each subsequent revision has moved the Standard along. Thanks to an agreement among ISBN, GS1 (at the time called EAN International), and the Uniform Code Council (UCC) that allowed ISBN to be encoded into an EAN-13 bar code, ISBN has facilitated EPoS (electronic point-of-sale) systems since the 1990s. In 2005, the structure of ISBN was expanded to from ten to thirteen digits, which increased the capacity of the system and also made it numerically identical with its bar-code representation. ISBN is a core data element in the compilation of book-product databases and the importance of collecting at least the minimum metadata fields has been firmly embedded in the ISBN standard for more than ten years.

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In the early 2000s, there was considerable debate about whether digital publications in the supply chain should use a numbering system completely different from ISBNs. After investigating some options, this was felt to be complex and restrictive, as well as unnecessary, since the scope of ISBN encompasses books in any possible format. Rules for assignment of ISBN to digital publications have been present in each of the last two editions of the International Users' Manual (2005 and 2012) as well as the current edition of the Standard, which was published in 2005 (ISO, 2005). As well as adapting to change, ISBN must also be supportive in times of turbulence; as publishers and other producers continue to explore new boundaries in search of success, ISBN offers reliability and a common language of transaction.

Perhaps another key reason why ISBN has remained germane in a changing world is that the standard has never actually sought to define “a book.” Readers of the standard will not find a minimum number of pages or a prescribed list of formats. Instead, they will see a scope that's defined as non-serial publications that are available to the public for sale or gratis. The standard includes examples of qualifying and non-qualifying products, but the lists are intended to be indicative rather than exhaustive. Defining things more tightly might have the unintended effect that the standard could be out of date almost as soon as it is published—for example, a product that was hitherto unimagined yet clearly appropriate for ISBN could be newly offered on the market but not specifically listed in the standard's text.

ISBN was the first globally unique product identifier of its kind. Today, 150 national or regional registration agencies have assigned ISBNs to over 1.5 million publishers in more than 200 countries. The essential concept is rather simple—each edition of a book produced by a particular publisher can be identified by a unique numerical string. The string remains associated with that specific book for all time, and can be used reliably to order it in any country. On a printed book, such as a paperback, the numbers of the ISBN are usually clearly visible on the bottom right of the back cover, either rendered simply

as numbers or converted to bar-code form for easy and quick processing of sales. Such visibility enabled ISBN to become a widely known and instantly recognisable standard.

How did the book trade cope before ISBN? Quite simply, things were much more laborious and even chaotic—manual, labour-intensive order forms, upon which full details of title, author, publisher, etc. had to be faithfully reproduced, were the norm. The original ISBN was ten characters long, including a final check character to validate the rest of the number. With this, ISBN offered a basic identifier with a common structure that could be used easily by all participants of the book trade and replace the detailed and lengthy order entries. Computerization was in its infancy at that time yet ISBN, because it was a short “code” that could be verified and processed easily by machines, quickly became an essential building block in the automated systems then being introduced by retailers, libraries, and publishers.

For the supply chain, ISBN has helped to facilitate Electronic Data Interchange transactions as well as to capture and collate sales data. Also, when the participants in the supply chain need to distinguish between particular editions of a publication, (for example, if a particular edition is being withdrawn to be replaced by a version with small, but significant changes), then assigning distinct ISBNs to each of the editions will help to make that process smoother and more efficient. Unique identifiers aid in discovery and disambiguation; they can also contribute to the marketing process by highlighting specific qualities in a publication, for example differentiating between product form details (e.g., whether a book is in PDF or EPUB formats), or between the accessibility options available for those with reading or print impairment.

A working group comprised of 41 experts from 14 countries is currently working on the revised fifth edition of the ISBN standard, which is due to be completed by the end of 2016. The standard has been going through successive drafts and each major draft is voted upon by the national member bodies that form ISO/TC46/SC9 (the sub-committee within ISO that is responsible for ISBN).

One of the most critical areas of contention that the working group has had to grapple with has centred on what constitutes a product. In the digital world this issue is often complicated and clouded by the extra capabilities that new technologies may offer to publishers, such as security options and usage constraints (the ability to control, for example, whether a user can lend a book to someone else). If the versions of the book are available separately with different usage constraints—one with the capacity to lend and one without that capacity—are these two unique products that should be uniquely identified? The working group revising the ISBN Standard thinks so, and believes that the metadata

for each of the products also needs to be differently described. On the other hand, what if the usage constraints are always the same but the Digital Rights Management software (DRM) that the publisher uses to enforce these restrictions on the publication varies? Is that change of DRM software enough to constitute a different product? It may not necessarily be so; it depends on whether the difference would be noticeable to the user of that publication.

Ultimately, the pinch point going forward is not about whether or not an ISBN is capable of identifying products at sufficient granularity—it is absolutely true that a unique ISBN can be assigned if there is some distinguishing fact that makes one product different from another identically titled publication. The real issue may be whether it is appropriate to assign a unique ISBN—is the degree of differentiation helpful to the user who wants to find and buy the book? Is assigning a new ISBN useful to the supply chain or really just “clutter”? Given ISBN’s primacy as a supply-chain identifier, the needs of the trade are likely to remain key determinants.

The revised standard is also likely to include information about how to make ISBN resolvable. Doing so will not be mandatory, yet it will serve as a timely reminder about these opportunities, which are not new but remain a little under-exploited. Although it is an identifier created in an analogue world, ISBN can, if incorporated into persistent-identifier strings such as Digital Object Identifier (DOI) or Uniform Resource Names (URN), be made resolvable on digital networks. Depending on the particular service and resolution method, clicking the resolvable ISBN may then take the user to metadata about the publication, related transactional services, or even a digital copy of the resource. As our search and discovery tools move ever more to the cloud, standards such as ISBN can still add value without contradicting credentials or betraying core principles. The unwavering requirement is to identify books irrespective of whether those books are digital or printed versions. The words of H. G. Wells may never have seemed so apt: “Adapt or perish, now as ever, is nature’s inexorable imperative”.

## REFERENCES

ISO. ISO 2108:2005(en).

<https://www.iso.org/obp/ui/#iso:std:iso:2108:ed-4:v1:en>