

## From 10 Digits to 13: Why the Longer ISBN?

**Shauna Kanel**

Since 1 January 2007, ISBNs (International Standard Book Numbers) have had a new look. Book enthusiasts may have noticed 13-digit ISBNs with 978- prefixes accompanying traditional 10-digit ISBNs. The new system has been in the works for quite some time and has a number of essential functions in the book industry, greatly increasing the number of ISBNs available and rendering them congruent with other identification numbers used today.

Publishers, librarians, and booksellers need a way to track books and other printed and electronic materials from their inception until they are out of print. Since 1970, the ISBN system has tracked not only individual book titles, but also pamphlets, CD-ROMs, audio books, and new digital media. However, because of the enormous number of materials created—the United States alone produces more than 50,000 new titles each year—the system has required expansion.

“When the 10-digit system was adopted, people never thought [ISBNs] would be used in 166 countries in e-books, online materials, individual chapters, and so on” says Brian Green, executive director of the International ISBN Agency. ISBN-10s identified books by computer-readable numbers that could be read by software that automatically checked for accuracy. Those ISBNs have been converted into new 13-digit barcode IDs by adding a 978- prefix and recalculating the check digit.

The prefix allows for expansion of the system in being open to change as the volume of printed material demands. When ISBNs with 978- prefixes are exhausted, a new prefix will be generated and numbering can begin anew. Currently, publishers can use an online converter to change ISBNs to 978- numbers. When those numbers run out, ISBNs with 979- prefixes will be generated, and so on.

SHAUNA KANEL, *now communications coordinator at the Stanford Center for Biomedical Informatics Research, prepared this article while a Science Editor intern.*

A three-digit prefix offers more to the book industry than just a resilient numbering system. ISBN-13s also conform with the European Article Number (EAN) barcode format found on most commercial merchandise; its counterpart is the 12-digit Universal Product Code (UPC) used in North America. “We had to find some way to increase capacity, and the 978- prefix was already available as a barcode with 13 digits,” Green says. The prefix serves a dual purpose, expanding the numbering system while allowing all items identified by ISBNs to be represented in the same barcode format as other commercial products.

### Example

ISBN-13s consist of five parts separated by spaces or hyphens, each with a specific meaning. The number is preceded by the letters ISBN so it is easily identifiable.

A typical ISBN-13 looks like this: 978-0-313-33040-7.

- The 978- prefix is the EAN product code indicating a unique title, edition, digital publication, or other item. It will change as the number of publications increases.
- The second part is the group or country identifier. It tells where the publication was produced; 0 is for the United States. It is one to three digits long, to accommodate the hundreds of countries now using the ISBN system.
- The third part is the publisher identifier. Its length depends on the number of titles that the publisher intends to print.
- The fourth group, the title identifier, is assigned by the individual publisher to each of its titles. Publishers must purchase blocks of 10, 100, or 1000 numbers from their national ISBN agencies. The lengths of the publisher and title identifiers depend on the size of the block purchased. The publisher identifier and the title identifier must total eight digits. A publisher with a large number of printed materials will have a short publisher identifier to allow for a large block of title identifiers. A small publisher will have a long identifier and a small block for titles.

- The final digit is the check digit. Obtained through a mathematical formula based on all previous digits in the ISBN, the check digit indicates whether the ISBN is correct. “It exists because it’s very easy to make an error in rekeying ISBNs,” Green said. The formula is built into all software that handles ISBNs, so the codes are automatically checked on entry to detect number transpositions or other typographic errors.

### History

Developed in the middle 1960s by W H Smith, a prominent British book retailer, while he was computerizing management processes, the standard book-numbering system was introduced in the United Kingdom in 1967 and in the United States in 1968; it allowed the UK and US book industries to keep track of all their titles. The UK ISBN system was put before a working group of the International Organization for Standardization (ISO) to investigate its potential as an international bibliographic tracking system. In 1970, ISO approved the ISBN as ISO Standard 2108, a standard that, with revisions, is still in use today.

The standard now stipulates the use of 13-digit numbers. That update was effected in 2005 with the requirement that all ISBNs be converted by 1 January 2007. “Publishers had ample time to change their systems,” Green says. During 2007, publishers were encouraged to use both forms of their ISBNs to ease the transition process.

The change may have been anticipated, but it was not easy for some publishers. According to the Blackwell Publishing Web site ([www.blackwellpublishing.com/static/isbn13.asp](http://www.blackwellpublishing.com/static/isbn13.asp)), “all processes, systems, reports and interfaces using ISBNs need to be adapted to operate and communicate using ISBN-13.”

For more information on the revision and its effects on the book industry, see the International ISBN Web site, at [www.isbn-international.org/en/revision.html](http://www.isbn-international.org/en/revision.html). 