Revising the ISSN Standard: The Challenge of Change

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ABSTRACT

The International Standard Serial Number (ISSN) has been the standard, eight-digit code used to identify newspapers, journals, magazines, and periodicals on all kinds of media—print and electronic—for the past 40 years. Periodically, the standard must be revised to allow it to accommodate new formats, changes in the publishing industry and information supply chain, and other developments in the information field. Regina Romano Reynolds, director of the U.S. ISSN Center at the Library of Congress, describes the issues that the ISSN International Centre perceives as necessitating a revision of the standard and the likely next steps in the International Organization for Standardization standards revision process.

KEYWORDS

Cataloging; continuing resources; International Standard Serial Number; ISSN; ISSN Network; library standards; serials

For over 40 years, the International Standard Serial Number (ISSN) has been the standard, eight-digit code used to identify newspapers, journals, magazines, and periodicals of all kinds and on all media—print and electronic.1 Since revision of the ISSN standard (ISO 3297) in 2007, ISSNs have also been assigned to selected integrating resources, including databases, websites, and continually updated online directories. As a standard that has survived 40 years, the ISSN has had to adapt to the changes in the information environment while remaining true to its nature as a standard. Karen Coyle said of standards, “Standards have everything to do with change. They hold change in check by fixing certain parts of a technology. They also allow innovation to happen in a controlled way by creating an area of certainty around which change can happen.”2 The ISSN has provided this certainty in helping to identify serials in the changing information environment. Yet when the accumulation of changes reaches a certain threshold, the time for a standard to be modified arrives. For the ISSN, that threshold has been met.

At the 2016 annual NASIG conference, Regina Reynolds, Director of the U.S. ISSN Center and head of the ISSN Section at the Library of Congress, spoke on developments surrounding the revision process and shared a vision for revising the ISSN Standard. The evolving electronic environment with its proliferation of resource versions, editions, and formats makes it important that the ISSN interoperate with linked data, ONline Information eXchange (ONIX), and new types of identifiers. Other challenges for the revision include how to revise a standard that is in wide use and how to get the community of ISSN users—publishers, suppliers, librarians, and other information specialists—to come together in agreement on any changes.

A brief history of ISSN

What is now the international ISSN standard first began as a U.S. standard. In 1971, the American National Standard Identification Number for Serial Publications (ANSI Z39.9, dubbed the SSN) was first published. The international ISSN standard, ISO 3297, was subsequently drafted that same year and published for the first time in 1975. It has been revised on a regular basis since that date. The standard contains the definition of ISSN and the related rules of application. In 1974 an agreement was signed by France and United Nations Educational, Scientific and Cultural Organization (UNESCO) for the
creation of the ISSN International Centre located in Paris, France. In 1978 the United States agreed to follow ISSN statutes. In 1988, the U.S. ISSN Center assigned the first ISSN to an online resource.

One of the more significant revisions of the ISSN standard took place in 2007. This most recent revision expanded the scope of ISSN to include all continuing resources, including databases, websites, and other integrating resources. At that time the granularity of the ISSN also came under discussion. Interested parties were divided in what they wanted from the ISSN. Some wanted a better, more specific, product identifier—one that would be different for each format. Others wanted an improved bibliographic identifier, one that would identify content rather than format. The deadlock was resolved with a compromise creating the linking ISSN (ISSN-L), which allows for title-level identification regardless of format. In 2011, ANSI administratively withdrew Z39.9 in favor of the revised international ISSN standard.

ISSN today

Today there are 89 national ISSN centers coordinated by the ISSN International Centre (ISSN IC) in Paris, collectively referred to as the ISSN Network. The ISSN IC assigns ISSNs for countries that are not part of the Network and is responsible for all documentation, policies, and practices, as well as the ISSN Register and related products such as the ISSN Portal. Russia is the newest member of the Network, joining in 2016. There are over 1.9 million titles in the ISSN Register and over 70,000 new ISSN and corresponding metadata records are issued each year. ISSNs are used by libraries, publishers, rights management agencies, postal services, archiving agencies, discovery knowledge bases, serial supply chain participants, and many others. The ISSN is positioned to be a key identifier in the linked data environment.

The revision landscape

As in the past when it was apparent that revisions to the ISSN standard were necessary, the ISSN Network will seek broad representation on the International Organization for Standardization (ISO) working group that will be appointed to revise the standard. Working group members and ISSN centers will solicit input from the community in how to update and improve the standard. As is always possible with a systematic revision of an ISO standard, all aspects of the standard are up for discussion, including what is working for a constituent group and thus should not be changed, as well as input on what is not working in a particular sector or sectors. A number of key players and environmental factors are prominent in the revision landscape. They include the ISSN Review Group, ISSN interfacing with other standards, new business models, linked data, ISSN uses and users, and potential revision issues.

ISSN Review Group

The ISSN Review Group was formalized in 2016. Among other work, the group is tasked with modifying the ISSN Manual and with helping to interface with other standards. For example, at a meeting in April 2016 held in conjunction with the biennial ISSN General Assembly meeting, the Review Group worked on portions of the Manual. They clarified the ISSN’s scope, added some new optional elements to the Manual to accommodate ISSN centers following RDA, wrote instructions about when one ISSN can cover more than one format, and updated the table of ISSN elements. The Review Group will provide updates and seek input on revision issues at annual meetings of ISSN directors and at biennial meetings of the ISSN General Assembly while the revision is in progress.

ISSN and other standards

The Review Group will continue to discuss interfacing with other standards, including ones that ISSN has not had a relationship with before. For example, while the ISSN did not adopt Resource Description and
Access (RDA), staying with the International Federation of Library Associations and Institutions (IFLA) standard for description (ISBD), many accommodations have been made to make ISSN descriptions compatible with RDA. As the Functional Requirements for Bibliographic Records (FRBR) model and RDA continue to be revised, the ISSN Review Group must address concerns with these standards' revisions relating to continuing resources and serials and possibly take them into account for the revision of the standard.

The Review Group has also provided comments on the FRBR Library Reference Model (LRM) draft which states in part that “… any serials work can be said to have only one expression and only one manifestation.” The ISSN Review Group found this revision problematic and unrealistic. Reynolds expressed her opinion that perhaps rather than focusing on defining serial works, we might look at serial relationships and how they can serve to draw the borders of additional entities such as the paper edition of a journal and its edition on the web; or all linguistic editions of a journal that is published as separate language editions; or all local editions of a journal. She wondered if different on-the-fly groupings of related resources might best suit the varying needs for relating continuing resources. The FRBR LRM draft repudiated the classic example that was cited in the original FRBR document: the Wall Street Journal with its various geographic editions. Limiting a serial work to one expression does not solve the problems of cataloging multiple formats and editions, it simply pushes the problem down the road for someone else to resolve.

Another issue that the Review Group dealt with is the question of the basis of description, a situation where German rules differ from U.S. practice and ISSN practice. Current U.S. practice is to describe a resource from the first issue within a major change. Complications arise with this practice when there is a significant change to a title, but that significant change is nonetheless considered a minor change within the constraint of current cataloging rules. A good example of this situation is the minor change from Businessweek to Bloomberg Businessweek. The addition of “Bloomberg” to the long-existing title “Businessweek” was considered a minor change and the resource’s title proper continues to be Businessweek, although the issue’s covers clearly present the title Bloomberg Businessweek. Current German practice is to describe from the most recent issue within a major change. In the case of Bloomberg Businessweek, this practice allows for the recording of the new form of the title as the title proper, rather than recording it as a variant title. The ISSN Review Group is considering a proposal to the MARC Advisory Committee to make the 245 repeatable with indicators, if possible; comparable to the 264 field, or to expand use of field 247 for these situations. This would allow a library to display either the earliest or the current title within major changes of title. This change might allow members of the ISSN Network to describe from either the first or the most recent issue.

The Review Group will also be examining how PRESSoo, an ontology derived from Functional Requirements for Bibliographic Records—Object Oriented (FRBRoo) and expressly designed to represent bibliographic information relating to serials and continuing resources should work with the ISSN. The Group will examine the future revision of ISO 8, which will incorporate Recommended Practices for the Presentation and Identification of E-Journals (PIE-J), in this context as well. The current ISSN standard has appendices illustrating interoperability with other standards, such as Digital Object Identifier (DOI), International Standard Book Number (ISBN), and Uniform Resource Name (URN). An example of this is instructions and examples showing how an ISSN can be embedded into a DOI at a title or article level. A standard that ISSN is looking to interface with is the International Standard Name Identifier (ISNI), a name identification system for persons or corporate bodies involved in the creation, production, management, and content distribution of chains of media. ISSN is looking into how to incorporate ISNI into its database. Although in databases such as OCLC WorldCat, ISNI are located in the authority record, some ISSN centers are adding ISNI to the MARC 710 field. The ISSN Network’s creation or use of name authorities for corporate bodies remains a yet-to-be explored question.

New business models and broader sharing of ISSN data

ISSN has a wealth of data that can help make information discoverable for users. Many in the ISSN network would like these data to be freely accessible. However, ISSN data have been behind a paywall as
subscription and fee-based products for many years. In an effort to open at least some ISSN data, the ISSN IC is working on a plan to expose part of the ISSN Register as Linked Open Data (LOD) under a Creative Commons CC-BY-NC license. Discussions are ongoing as to what data will be exposed. While some, such as the LD4L group in discussions with Regina Reynolds, have indicated they would like to see the links of earlier and later titles exposed in order to facilitate linking, this data can also be seen to have significant monetary value.

On the other hand, freely exposing even the most basic ISSN data would likely greatly enhance the accuracy of ISSN data now present in catalogs and databases. Currently, many ISSN users are not getting their ISSN from the ISSN network, but through intermediaries or publishers who have incorrect data. The intermediaries inadvertently can and do send out incorrect ISSNs or garbled ISSNs. The problematic ISSNs can get passed through several systems. Thus end users who are trying to use the ISSNs to match records do not get matches. If everyone could get ISSNs from a single authoritative source and locate them in the correct places in their systems, then the correct matches would be made.

The ISSN International Centre incurs substantial costs in administering a network of 89 centers, costs that may not be met if some ISSN data are to be made freely available in future, so a balance of freeing ISSN data and recovering ISSN costs will be key. There also has been an increase in the demand for ISSNs and a corresponding increase in the workloads of the ISSN International Centre and ISSN centers worldwide. Some companies want thousands of ISSNs for backfiles. The Italian government is requiring that Italian agencies only subscribe to databases that have ISSNs. Supplying this demand might be too great a burden for some ISSN centers to handle. The ISSN IC has decided to allow centers to charge for ISSN on the condition that the charges are approved by the host institution and the ISSN Governing Board.

Once an appropriate administrative system is implemented, the ISSN International Center will begin charging when it assigns ISSN for publications from those countries that do not have their own ISSN center and for projects requiring bulk assignment of ISSN. The IC is also designing packages of services to offer to major publishers and organizations. The Library of Congress is not authorized by the U.S. Congress to charge for ISSN services and wishes to continue to provide ISSN as a public service so ISSN will remain free in the United States.

**Potential revision issues**

A number of issues are likely to be addressed by this revision. The continuing tension as to whether the ISSN is primarily a bibliographic identifier or a product identifier might again be examined. Although the introduction of the ISSN-L in the 2007 revision broke the deadlock at that time, it has not fully resolved this issue. The question of adding a medium suffix to a base ISSN might again surface. An important facet to this issue is that so many systems have allocated a fixed number of characters for the ISSN. If more characters are added to allow for differentiation of content or format, system providers will have to spend time and money to update and accommodate this change.

Another question addresses setting the level of granularity that ISSNs should record. To illustrate this issue, Reynolds displayed a photo of a now-ceased short story magazine that was issued printed on a t-shirt. The magazine could be purchased as a small, medium, or large t-shirt. At the time, the question was asked, only partly in jest: should each size receive its own ISSN? In this age of multiple formats, this question is more applicable than ever. Resources come in Portable Document File (PDFs), Hyper Text Markup Language (HTML), Epub, Android, and many more formats. ISBNs are required for each monographic format. Should ISSN do the same for serials and continuing resources?

A desire for ISSN to be assigned to serial “families” has also been expressed. How would this desire be met? Families can include serials that have combined, split apart, and/or derived into multiple formats. To accommodate this desire, determinations would have to be made on how to draw the borders around the families and which groupings would get the “family ISSN.” Reynolds compared this challenge to drawing up a wedding invitation list for a large extended family: how to define which family members to include!
Another question might concern how ISSN can align its required metadata better with ONIX mandatory metadata. An example of this is the numbering (enumeration and/or chronology) in the two systems. For the ISSN standard, including these numbers is optional but they are mandatory for some ONIX messages. In order for ISSN to be used in the chain of trade, ISSN metadata might need to sync better with ONIX data.

Although the topic of major/minor title change rules is not explicitly listed in current documentation of what might be discussed, and even though these rules are not part of the ISSN standard, it is hard to imagine this will not be discussed if all the players in the serials/continuing resources production and supply chain get together. The aforementioned change of Businessweek to Bloomberg Businessweek constitutes a prime example of confusion and irritation with title changes. Currently, the application of the major/minor title change rules can often be murky. Clarification and possible simplification of these rules would benefit everyone involved in the serials supply chain. Harmonization among multiple communities, last achieved among the Anglo-American Cataloguing Rules, Second Edition, ISBD, and ISSN in 2002, would have to be kept in mind. Discussions would have to include many parties, including the Resource Description and Access community, IFLA’s ISBD group, and users of ISSN and cataloging data.

Finally, consideration should be given to how to update the ISSN standard to facilitate ISSN’s identification role in the linked data environment. The potential for ISSN to be a key data point within linked data systems is great, but the community will need to identify what might be missing in the standard to equip the ISSN better for this future.

Reynolds concluded the session by explaining the ISO standards development stages. It is a rigorous and highly prescribed process that could take two to three years to complete. As the process unfolds, the ISO working group will issue drafts and will seek input on these drafts via national standards bodies. Reynolds encouraged the session attendees to participate. The ISSN Network and the broader serials community are looking to improve the standard, ensuring its reliability and flexibility for another 40 years or more.7

Notes

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