

## The ISSN International Centre and its Network: A brief Introduction

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### Abstract

*The article recalls the rationale behind the creation of the ISSN international center placed under the dual auspices of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Organisation for Standardisation (ISO). It describes the recent progress achieved by the ISSN International Centre, particularly regarding the openness and quality of ISSN data. The objectives of the Centre's current strategic plan are detailed.*

**Keywords:** *International Standard Serial Number; PID, Digital preservation, MARC 21, Uniform Resource Name, International Standard Name Identifier.*

### 1. Historical background:

In the early 1970s, UNESCO partnered with the International Council of Scientific Unions (ICSU) to complete a feasibility study to create a world science information system called UNISIST. In the report submitted in 1971, UNESCO and ICSU recommended notably that: “An international registry of scientific periodicals [...] be established as a basis of a system for the normalization of the citations of the journal literature of science and technology; the scope, functions, and organization of the system should be in general agreement with the recommendations of the UNISIST/ ICSU-AB Working Group on Bibliographic Descriptions after endorsement by UNISIST adherents.”<sup>1</sup> This recommendation was validated by the UNISIST central committee which supported the creation of an “international registry of scientific periodicals”<sup>2</sup>. During the intergovernmental conference that took place in 1971, delegates “noted with satisfaction that the French Government, in co-operation with UNESCO, will establish an International Centre for the International Serials Data System.”<sup>3</sup> Meanwhile, ISO

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Technical Committee 46 – Information and Documentation had developed a standard to create a code to identify serials, the International Standard Serial Number (ISSN), which was combined with the key title, a method to transcribe serial titles in order to make each of them unique. ISO Standard 3297 - ISSN was first published in 1971.

In July 1972, UNESCO and the Government of the French Republic signed a provisional agreement establishing the International Centre for the Registration of Serial Publications in Paris. The final agreement between UNESCO and the Government of the French Republic creating the ISDS International Centre was eventually signed in November 1974. The ISDS International Centre<sup>4</sup> finally came into existence in January 1976 after the ratification of its Statutes by the French Parliament in December 1975.

At the General Assembly meeting of April 8, 1992, the ISDS International Centre management presented the findings of a market survey which showed that the initials *ISDS* and the name *International Serials Data System* were not well known in the information industry. The majority of professionals interviewed did not make the connection between ISDS and the ISSN standard. The study therefore recommended that ISSN be included in the name of the international center and network, which was effective in 1994.

### **2. Current challenges:**

Since 1994, the ISSN International Centre<sup>5</sup> has been the nexus of an international network of Registration Agencies for ISO 3297-ISSN standard. As of 2023, 93 National Centres operate on all continents to serve publishers and identify their journals and all types of continuing publications such as newspapers, magazines, repositories, websites.

In June 2014, the Board of Directors validated the 2015 strategic plan which reaffirmed the importance of sharing ISSN data with the community of producers and users of scientific and technical information. This implied rethinking the organizational model of the ISSN Network and finding a middle ground between data openness and economic viability. The ISSN Portal<sup>6</sup> was launched in January 2018. It ensures the exposure of a basic ISSN dataset via Linked Open Data. Free ISSN data can now be linked to and retrieved. For professionals, the complete ISSN data is available on subscription with specific OAI-PMH and API services. This Freemium model has proved to be successful.

The enhancement of the ISSN Portal's data in cooperation with National Centres is a recurrent task. The ISSN International Centre strives to provide value added services based on its data treasure trove. To support this goal, the production tool managed by the ISSN International Centre, called ISSN+, was launched in June 2022. It is an up-to-date system based on Elasticsearch, Python and VueJS that allows for a better monitoring of data quality by the implementation of corrections to data spotted in its error dashboard.

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The ISSN International Centre 2024 Strategic Plan<sup>7</sup> was approved by the ISSN IC Governing Board and the ISSN Network member countries in April-May 2020. The first objective is to develop the global interoperability of the ISSN Portal by improving the management of ISNIs. The ISSN data should be interconnected with other identifiers and thus be part of the web-based identification ecosystem. The ISSN International Centre has been a member of the ISNI-IA since 2015 and has access to the ISNI professional and curated database<sup>8</sup>. The ISSN International Centre also works with ISSN National Centres that already use ISNIs (ISO 27727: 2012) as identifiers for individuals and legal entities in their own local databases. These ISNIs are retrieved by the ISSN International Centre when records are imported into the ISSN Portal. The ISSN International Centre wants to use ISNI to create standardized access points for publishers and organizations in the ISSN Portal to enhance search query results. The ISSN International Centre will also request the creation of ISNIs for those entities that do not yet have one.

The second objective is to encourage the creation of new ISSN National Centres to extend the ISSN network worldwide. It is important to ensure that all countries have a centre where it appears viable, and to encourage low-performing centres to meet standards and good practice. To succeed, it will be necessary to strengthen initial and in-service training and to carry out awareness-raising activities. Our aim is to open at least five new National Centres between 2020 and 2024.

The third objective is to implement the sixth version of the ISSN standard by creating the family ISSN and other cluster ISSN. Tracking the changes that a serial publication undergoes over time is a long-standing challenge and the relationship between old and current titles is recorded in the MARC bibliographic formats in specific fields. For several years, ISSN-L has been used to collate the different versions of a continuing resource across multiple media. However, it is only with the sixth version of the ISO 3297 standard, which was released in October 2020, that it became possible to create other cluster ISSN. A survey of our user community in 2019 revealed an interest in what could be called an ISSN-H grouping together titles identified by ISSN and being interrelated. Discussions within the ISSN International Centre determined that an ISSN-H could be embodied as a URI providing access to a visual representation of a publication's history.

The fourth objective is also related to the sixth version of ISO3297 - ISSN and aims at assigning ISSN to various types of continuing resources. A proposal was passed by the MARC Advisory Committee in January 2021 to include additional types of continuing resources defined for the control field (tag 008 position 21) to reflect the full scope of continuing resources covered by ISO 3297:2020. Three code definitions were revised, and six new codes were added. Additional information can be found on the Library of Congress website<sup>9</sup>.

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The fifth goal is to develop the interoperability of the ISSN Portal through the management of persistent identifiers and URLs of digital continuing resources. The ISSN International Centre manages metadata of digital serial publications in the ISSN Portal. It is mandatory to include the URLs of electronic publications in field 856 in the MARC 21 record. On the ISSN Portal, the URLs in the 856 tags are used to link to the resource itself. Like all bibliographic databases managing URLs of documentary resources hosted on external servers, the ISSN Portal is confronted with URL obsolescence. The ISSN International Centre has set up a URN:ISSN resolver<sup>10</sup> which integrates the URLs available in field 856. This resolver will be used as the linchpin for the redirection process linking to current and archival URLs when online publications cease to be updated, disappear or change hosting server. Fields 856 and 857 in MARC21 have recently been upgraded to accommodate reference to distinct URLs and PIDs.

Last but not least, the sixth objective aims at developing Keepers Registry<sup>11</sup> to associate new agencies and increase the number of identified archived resources. Keepers Registry is a free service that aims to inform the library and publishing community about the actions taken by archiving organizations to preserve titles of digitized and digital serial publications identified with ISSNs in order to promote long-term access to these resources and to stabilize scientific references for the research sector. As of March 2023, 81,958 titles are ingested & archived by 17 partner archiving agencies and 21,164 titles are being 'kept safe' by 3 or more agencies. Keepers Registry is also a partner of DOAJ, CLOCKSS, Internet Archive and Public Knowledge Project in the JASPER project<sup>12</sup>. Phase One of Project JASPER is a scoping exercise aiming to find a solution that will reduce the number of unarchived open access journals. Starting with a list of diamond open access (i.e. non-APC charging) journals from DOAJ, the five partners have been working together to produce a technical process to archive journals. The project<sup>13</sup> is now actively looking for funding while ingesting more journals. Keepers agencies will be solicited at a later stage to join the scheme once funding has been secured.

#### **International cooperation is key!**

The ISSN International Centre relies on the input of the 93 ISSN National Centres, including ISSN Nepal. Cooperation with our international partners is key to the success of our common agenda. It is crucial to have all voices heard when it comes to the dissemination and the preservation of the cultural and scientific heritage.

Endnotes

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