

# The ISSN: Critical Questions that Scientists Should be Asking

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## ABSTRACT

An ISSN (International Standard Serial Number) will most often be associated with an academic journal. In years gone by, the ISSN was observed as one measure of quality of a journal, although the logic behind that rationale was never queried. Other than its actual existence, few scientists know little else about the ISSN. Now, with an explosion of predatory, fraudulent and fake journals, mainly open access, the easy assignment of an ISSN to a journal should be a questionable parameter of quality. Most importantly, if the ISSN Center in France and its global affiliates take credit for being associated with so many academic journals which use an ISSN number on the covers of their journals and on their web-sites, then surely the same ISSN Centers have a share in the responsibility associated with the quality of those journals. This implies that any journal that has been assigned an ISSN and that in any way behaves unethically or fraudulently deserves to have its ISSN number retracted by the ISSN Center. The fact that this policy currently does not exist and that ISSN numbers are being assigned to journals, sometimes in batches of dozens or even hundreds, indicates that there is a serious problem with the policies at the ISSN, at least those related to the ISSN's responsibilities towards the academic community. This paper lists 67 key questions that the scientific community should be asking about the ISSN and that the ISSN has a responsibility to respond to since these aspects affect all scientists and ultimately one aspect of the integrity of science. Naturally, after this paper has been published, a follow-up paper will be published with the ISSN's responses to these questions. This paper establishes a simple system to ensure that the process of ISSN assignment and retraction are open and transparent processes.

“Any company, institute, society, or other establishment (such as publishers) that takes advantage of an intellectual base of scientists to make profit or to fortify their own profile also has to show responsibility towards that base.” Jaime A. Teixeira da Silva

**Keywords:** ISBN, ISO, ISSN, open vs veiled processes, responsibility, transparency

**Abbreviations:** ISSN, International Standard Serial Number

## 67 QUESTIONS FOR THE ISSN

A link between the scientific community and the ISSN is clearly established. The objective of this set of questions is to promote more transparency and greater understanding to the assignment of a number that is currently not sufficiently transparent, with clear inefficiencies and abuses by third parties, and for which answers to the scientific public are not being provided. The ISSN (International Standard Serial Number) is generally perceived to be one measure of quality of a paper or journal and thus, by association, the integrity of a publisher. An assessment of all data sets published as open access PDF files on the ISSN web-page as well as the June 2012 *ISSN Manual* indicate increasing trends for almost all aspects, in some cases exponential increases, indicating the strongly dependent nature of the scientific community, particularly publishers of journals, on the ISSN. However, although it is obvious that ISSN numbers are being assigned at an unprecedented level, the retraction of ISSN numbers is a less discussed topic, possibly because such a policy does not exist. Since such information is poorly transparent to the scientific community, and since the level of fraud and irregularities in journals and by publishers is increasing, focus should also be directed to the ISSN as being partly responsible for the out-of-control state of this fraud by unregulated assignment of ISSN numbers and by unregulated follow-ups of journals and publishers to whom ISSN numbers were assigned.

Although not covered in this paper, the ISBN (International Standard Book Number) is owned by the International Organization for Standardization (ISO), but unlike the ISSN, ISBN numbers have a charge. The questions that

the ISBN should be answering will be covered in a separate paper elsewhere.

67 key questions follow that I feel the ISSN has the responsibility of responding to in a structured format because it is intimately intertwined with the scientific community. Also, the ISSN web-site does not provide detailed responses to such queries. Hereafter, the word public refers to any member of public, including the scientific community.

- 1) The ISSN does not charge any entity for assigning an ISSN number to a journal, i.e., the number is assigned freely. How then does the ISSN Center make profits? Is it a publically traded company?
- 2) Is access to the ISSN Register open to the public? If yes, please provide the access point online. If no, then why not?
- 3) When do new values get added to the ISSN Register? For example, when will 2012 data be visible on the ISSN web-site in 2013?
- 4) How do MARC 21 and UNIMARC affect the assignment of an ISSN and how is the applicant affected by or linked to these two ISSN types?
- 5) If the ISSN benefits from marketing and promotion of the company's system (the ISSN) by direct advertising on journal covers, then why are royalties not paid to scientists on whom the journals are fundamentally based?
- 6) What concrete benefits does a journal or publisher gain by having an ISSN number?
- 7) Why does the ISSN Center allow an ISSN number to be assigned to a journal title that already exists, even if in different countries? Please explain the logic of this decision. Hypothetically, could 100 ISSN numbers be

- assigned to 100 different individuals or publishers who are proposing the exact same title?
- 8) What is ISSN's public stance/position regarding publishing ethics? Why are a publisher's or a journal's ethical policies not part of the selection criteria for obtaining an ISSN number? So, for example, if a journal does not have ethical policies, then should it be awarded an ISSN number?
  - 9) In February, 2011, when I first contacted the ISSN about this issue, the second criterion for selection of a journal for attribution of an ISSN number is that the publisher/producer must show its name and at least the country. If a journal's publisher whose journals have ISSN numbers does not reveal their identity to the public on their web-site, or refuses to identify themselves upon request by members of the scientific public, what will the ISSN Center do?
  - 10) Please provide the full and complete list of those countries for which the ISSN is mandatory, explaining clearly for what purposes. These restrictions are unclear but are essential for publishers. The ISSN web-site says: "Is the ISSN mandatory? In certain countries, all serial publications covered by legal deposit must have an ISSN." This is definitely not enough information and the issue has not resolved in my 2011 queries and now again in 2013.
  - 11) Your web-site says: "Is the title of a publication copyrighted if it has been assigned an ISSN? No, several serial publications can have similar or identical titles. However, ISSN numbers are used by reproducing rights agencies in several countries for the management of their systems of copyright fees and royalties levied for the photocopying or electrocopying of articles published in serial publications." Please provide a comprehensive list of these countries.
  - 12) Online, your web-site responds, to the following question "Does ISSN guarantee the quality of serials and other continuing resources?" as follows: "When a publication (print or electronic, scholarly or non scholarly) is assigned an ISSN, it means that it is a continuing resource according to the ISSN criteria (a serial, a web-site etc). ISSN does not provide any guarantee as to the content of that resource, or any evaluation of its content, and does not provide evidence of its validity. Please also note that ISSN may be assigned prior to the publication (or issuing) of a resource (see above)". In other words, the ISSN does not assume any responsibility for a publication other than assigning it a number. Is this assumption correct? If yes, please explain, in as much detail as possible, the logic of this posture by the ISSN Center. In particular, why is it that on one hand it claims to be (or is claimed to be) a measure of quality, but then does not assume any responsibility for the content (i.e., running, use and management of the journal)?
  - 13) What exact parameters are used to assess whether an ISSN number will be assigned, or not? Please indicate clearly exact variables assessed and what weighting each variable is given.
  - 14) Is there a limit to the number of ISSN numbers that can be applied for (total) by a single applicant?
  - 15) Is there a limit to the number of ISSN numbers that can be applied for (in a single application)?
  - 16) Can individuals apply for an ISSN for their journal? If yes, what criteria are used to assess whether that individual is academically suitably qualified to receive an ISSN, especially considering that regular magazines, and non-academic magazines are also assigned an ISSN?
  - 17) Why are the selection panels that select a journal for assignment of an ISSN number not open to the public? A peer-reviewed journal involves an editorial board whose members are open to the public for critique and scrutiny, but ISSN selection panels stay anonymous behind closed doors. Why is that?
  - 18) Have the parameters and processes used to select journals for assignment of an ISBN changed over time? Please explain how, specifically in the period from 2000-2013.
  - 19) Does the ISSN Center re-evaluate journals to which it assigned an ISSN number regularly, including older journals to which an ISSN was assigned years ago?
  - 20) Does the ISSN get paid in any way by publishers or companies such as Thomson Reuters? If yes, please provide details and explain for what purpose.
  - 21) Is there any link or association between the ISSN and the Impact Factor? In particular, there is a clear link between the IF and the frequency of publication, especially considering that there are a lot of interesting trends in your chart on quantification of "frequency of publication"?
  - 22) Does the ISSN Center pay any official university staff, librarian, institute or ministry in any country around the world to promote the ISSN? If yes, please provide details.
  - 23) Does the ISSN in any way fund any laboratory, institute or government agency anywhere around the world for promoting the ISSN or for any ISSN-related services?
  - 24) After how many years must a journal be published before an ISSN can be assigned?
  - 25) Please explain the logic of assigning an ISSN number to a journal before it has even started to be published.
  - 26) The ISSN has 4 ISO (International Standards Organization) numbers: 4, 46, 2709, 3297. However, the ISSN disassociates itself from the quality of the publications that carry an ISSN number. Can you please explain this clear disconnect between these two clearly related aspects? What is the true meaning and purpose of having these 4 ISO numbers?
  - 27) What is the commercial link between the ISSN and the ISO (and/or the ISBN)?
  - 28) What is the exact link between the ISSN and Reed Elsevier's LexisNexis?
  - 29) Does the ISSN own and commercialize EAN 13 and SISAC numbers?
  - 30) If a journal that has an ISSN publishes plagiarized manuscripts, will the ISSN consider withdrawing the journal's ISSN number and banning that journal and publisher from applying for a new one in the future? Please indicate clear public policies and rules for such cases and how such issues are resolved.
  - 31) Related to Q30, if a journal has any of the following problems, how does the ISSN Center consider them? Will the ISSN consider withdrawing the journal's ISSN number and banning that journal and publisher from applying for a new one in the future? Please indicate clear public policies and rules for such cases and how such issues are resolved. Possible problems are: a) plagiarised or self-plagiarised text; b) false members of an editor board; c) a journal's editorial board is in any way unethical or fraudulent (*sensu lato*), or that journal's publisher is in any way unethical or fraudulent; d) false peer review or lack of peer review; e) false information listed about a journal or a journal's editorial board; f) false information about a publisher; g) if a journal's or publisher's ethics regulations are contradictory, i.e., invalid; h) if the copyright is invalid.
  - 32) Many journals consider themselves to be "international" and often use this self-characterization to gain a good reputation or to validate their quality. Can the ISSN please indicate what parameters it considers for a journal to be "international"? Please quantify all parameters.
  - 33) Is the number of issues or the speed with which a journal is published important when considering the assignment of an ISSN number?
  - 34) Does the ISSN Center equate itself with scientific quality? If so, how? Alternatively, and more broadly, does the ISSN Center equate itself with quality? If so, how?

- 35) Is it easier for an open access journal to be assigned an ISSN number than a print journal?
- 36) Does a print journal that has been assigned an ISSN number have to deposit a hard-copy in an ISSN center? If yes, then what policies apply for online journals?
- 37) How does the ISSN monitor and/or control whether the published content on-line remains unchanged after its publication? How does such a control measure differ with respect to print journals and online journals (open access or password-protected) that have an ISSN, especially considering that most online journals require a PDF file that can easily be edited and replaced without notice?
- 38) Is there any direct link between the ISSN and DOAJ?
- 39) Are DOI or CrossRef important factors for considering the assignment of an ISSN?
- 40) Is the ISSN linked in any way to the NIH, Elsevier, Springer, or other main-stream publishers other than the assignment of an ISSN number to their journals?
- 41) Do main-stream publishers get preferential treatment over other smaller, less voluminous applicants? This includes speed of processing or ease of application. Can concrete data about application processing be requested by the public?
- 42) How do regional ISSN Centers process local applications? Please provide extremely fine-scale details. So, for example, would applications in Bangladesh take place in exactly the same manner as those in France? If not, then please provide country-by-country details.
- 43) Can anyone other than an ISSN Center assign an ISSN number? In other words, does the ISSN Center partner with independent companies or organizations around the world, or on a country-by-country basis, to assign ISSN numbers? If yes, please provide country-by-country details.
- 44) Do you agree that the ISSN can or should be used as an official method by different Ministries of Education, Universities, Companies and employers around the world to differentiate “valid” from “invalid” journals?
- 45) Large, commercial abstracting companies such as EBSCO have, as a pre-requisite for inclusion, the need for a journal to have an ISSN number. What does the ISSN think about this and what link, if any, does the ISSN have with such commercial data-base and abstracting/indexing companies?
- 46) What is the link, if any, between the ISSN and Google, Yahoo and/or Amazon?
- 47) What is the link, if any, between the ISSN and several “ethics” societies: CSE, COPE, WAME, ICMJE, or others?
- 48) The ISSN has openly declared agreements with many large commercial publishers that would appear to gain preferential treatment by the ISSN, preferential treatment in the allocation of an ISSN number, or market advantage (see **ISSN doc 1**, web-sites). Please explain any possible conflicts of interest in detail. Also please explain the contractual terms behind these “agreements”, if they involve costs and payments and what exact terms are involved that give these publishers on this list preferential treatment.
- 49) Your web-site lists about half a dozen services which are supposedly the bread-line for the ISSN, including the ISSN Portal, Z39.50 access, OAI-PMH, and LTWA. In addition to these products, what are the other revenue streams of the ISSN? These are not clear on the ISSN web-site.
- 50) Is the ISSN a publically traded company? It is listed and described on the web as a non-government agency but does not necessarily state that it is an NGO, or non-profit company. If so, on which stock exchanges is the ISSN represented? The web-site provides no such information.
- 51) Please provide a full disclosure on the position that the ISSN has on the following laws, by-laws, motions, etc. that passed (or not) through the US senate and congress: SOPA, PIPA, ACTA, RWA, NDAA, CISPA, FISA and any other bills that threaten the privacy and security of the wider society, including scientists. Please comment on the position of each separately.
- 52) Does the ISSN fund US Government political candidates, either directly or through PACs, Super-PACs, campaign contributions, or other? If yes, please explain in detail. Similarly, does the ISSN in any way fund foreign governments? Please provide detailed information, if applicable. Please also indicate what the position of different regional ISSN Centers is with respect to local Governments and Government interaction, contributions or involvement.
- 53) What is the link between the ISSN and the US’s NIH, if any?
- 54) Recently, on the 20<sup>th</sup> November, 2012, the ISSN publicized a new collaboration with Italy. More specifically, “a new project for the identification in bulk of Italian serials, in cooperation with the Consiglio Nazionale della Ricerche (Rome), host of the Italian ISSN National Centre, and the Universita di Bologna, Area Sistemi Dipartimentali e Documentali, which runs the ACNP union catalogue. This project will result in a very important increase of the number of Italian serials in the ISSN international register”. Can you please indicate if such a project is voluntary, or if the Italian parties have to pay fees? If yes, please provide details because these are tax-payer funded institutes.
- 55) Similarly, for other “collaborations” and “projects”, are such initiatives done freely, or do “participants” have to pay? If it is a paid service, please provide country-by-country details.
- 56) Fraudulent and predatory open access publishing is increasing exponentially. See, for example, [www.scholarlyoa.com](http://www.scholarlyoa.com) for some background. Does ISSN consider predatory publishing to be a problem and what does it think about and how does it define this issue within the context of assigning an ISSN? Incidentally, the ISSN lists the Jeff Beall web-site on its own web-site, and ironically, the ISSN’s responsibility are questioned in an early January blog entry.
- 57) If a journal or publisher are considered by the scientific community to be predatory, can the public request that the ISSN of that journal be retracted? If yes, please explain the exact procedure that should be followed, including the issuance of a complaint, the procedure followed by the ISSN in retracting an ISSN and the time span for each step.
- 58) Some countries are registering ISSN numbers exponentially (using 2010 vs 2011 data), particularly Iran, Egypt, Philippines, India, Romania, Spain, Sri Lanka, Slovenia, and the UK. In some cases, the year-on-year increase is as much as 30% increase, and in the case of India, this corresponds to several thousand ISSN numbers. Can the ISSN Center provide any explanation for these trends and these numbers and indicate if the process is easier in some countries than in others.
- 59) Can you provide any explanation why countries such as Kyrgyzstan more than doubled the number of ISSN numbers from 111 in 2010 to 292 in 2011? Also how is it that the Dominical Republic had absolutely zero ISSN numbers until 2009, and then suddenly had 198 in 2010. Similarly, and even more surprisingly, Israel had zero ISSN numbers until 2009, but then suddenly 3276 ISSN numbers emerged in 2010. What possible explanations can the ISSN provide for such a sudden explosion of ISSN assignments?
- 60) Why do countries such as Bangladesh (high population) or South Africa (strong infra-structure) not have a national ISSN Center even though the number of ISSN numbers they apply for is quite high?
- 61) In 2011, there were 602949 “dead” category records. Can you please provide publically the reasons for these “deaths”?
- 62) Of some concern is a category of “unknown status”

with 37658 records. Can you explain what these are and why this number is so high?

- 63) The 2006-2012 ISSN Strategic Plan has now expired. When will the next Strategic Plan be publically available and for how many years will it be? In particular, how does the ISSN envisage to deal with the queries of this paper (67 questions), taking into consideration the words of the last mission “To fulfil [spelling mistake] its mission in an era of continuous changes, ISSN has fundamental strengths, which have to be developed and fully exploited. It also has to resolutely move forward, to anticipate changes in its environment, and to evolve so as to accommodate those changes”?
- 64) What concrete measures that would benefit the wider scientific community were decided in the 2012 Director’s meeting in Lisbon’s National Library of Portugal? The minutes of this and previous Director’s meetings are not available. Everyone who has a journal with an ISSN is directly related to the ISSN, its policies and thus the decisions made by the Director.
- 65) Please provide more details about the Edina Keepers Service. How do individual journals or small publishers participate? The web-site (see **ISSN doc 2**, web-sites) provides excessively skeletal information about this initiative.
- 66) More broadly, does the ISSN Center consider complaints about journals, or not? If yes, describe the scope of complaints that the ISSN Center accommodates. If not, then please explain why not.
- 67) To whom can queries by the public regarding the ISSN be directed? Please provide a contact person, title and e-mail contact, preferably of more than one individual with a sufficiently high enough position to respond to the academic community’s queries.

For all questions, please provide the maximum amount of detail possible and wherever available, a publically visible site with the information requested and responses to the queries made. The scientific community relies heavily on the ISSN for the validation of journals, supposedly as a measure of “quality”. Some pertinent facts and information have been listed from the ISSN web-site in **Appendix 1**. Thus, when such a high honour is bestowed upon an organization, then it has the highest level of responsibility to explain that measure and any other queries that the public or scientific community may have about that company or its policies.

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## WEB-SITES

**ISSN web-site:** <http://www.issn.org/>

**ISSN doc 1:**

<http://www.issn.org/files/issn/Documentation/List-by-Publishers-december2012.pdf>

**ISSN doc 2:** <http://www.issn.org/2-24096-Projects.php>

**ISSN Manual:**

<http://www.issn.org/files/issn/Documentation/Manuels/ISSNManual2012-EN.pdf>

## Appendix 1 (Excerpts of interest and relevance from the ISSN web-site)

From: <http://www.issn.org/2-22638-ISSN-and-electronic-publications.php>, *verbatim* but redacted for redundant information.

In January 2011, around 100 000 electronic publications (88 000 online) are identified with an ISSN number in the ISSN Register. This database, constantly updated in the framework of the network, has an annual growth of between 40,000 and 60,000 ISSN (corresponding to an equal number of records and identified publications); around 80,000 amendments and modifications are made each year. The statistics of the ISSN Register give important data concerning its coverage, growth etc.

### Criteria for the assignment of ISSN to electronic serials (online, CD-ROM, DVD...)

According to the basic ISSN rules, all the publications which comply with the definition of a serial (i.e. “continuing resource issued in a succession of discrete issues or parts, usually bearing numbering, that has no predetermined conclusion” [iii]) are eligible for ISSN assignment whatever their physical medium.

### Criteria for the assignment of ISSN to websites, databases, wikis and other ongoing integrating resources

The resources which comply with the definition of an ongoing integrating resource (i.e. “continuing resource that are added to or changed by means of updates that do not remain discrete and are integrated into the whole, and has no predetermined conclusion” [iv]) are eligible for an ISSN if they fulfill all the criteria hereafter (meeting only one of the criteria is not sufficient to make a resource eligible for an ISSN).

The form of the resource is not relevant. These criteria apply to databases, websites, wikis, print loose-leaf services and other ongoing integrating resources. Although blogs are considered to be serials, these same criteria should be applied to blogs.

**Note:** if a part of an ongoing integrating resource (website for instance) is deemed to be eligible for ISSN assignment, this does not mean that the whole website is eligible – the website in itself is not necessarily eligible.

### Inclusion criteria

1. there is an editorial content (i.e. the resource mostly consists of written, textual content, and there is an evidence of editorial or journalistic treatment) [v],
2. there is an identified editorial responsibility (i.e. a statement indicating the name of the publisher / producer, and at least the country of publication. Generally, editorial responsibility will consist of more than one individual),
3. there is a consistent title (i.e. a title which remains consistent when the resource is updated) and the title is easily findable in the resource,
4. there is a valid URL (i.e. an URL leading to the actual resource),
5. the resource has a subject-related content or has an identified subject-related audience.

### Exclusion criteria

1. personal resources (personal web sites and web pages, online diaries),
2. resources focusing on a company, a product, an institution or organization (advertising and promotional web sites, commercial web sites, product information web sites, company and institutional web sites, web sites of organizations),
3. ephemeral resources (i.e. resources known to be ephemeral),
4. continuing resources of purely local interest may be excluded from systematic registration.

## ISSN and ISO standards

### What is ISO?

The International Organization for Standardization (ISO) is a worldwide federation of national standards bodies from more than 140 countries, one from each country. ISO is a non-governmental organization established in 1947. The mission of ISO is to promote the development of standardization and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity. ISO's work results in international agreements which are published as International Standards.

### What is TC 46?

TC 46 is the name of the ISO Technical Committee working on standardization of practices relating to libraries, documentation and information centres, indexing and abstracting services, archives, information science and publishing.

### What is the ISO 3297 standard?

In 1971, an ISO standard for the creation of an International Standard Serial Number (ISSN) was drafted. The ISO 3297 standard defining the ISSN was finally published in 1975. It contains the ISSN definition and standardized application rules. This has allowed from the origin the ISSN to be a tool internationally used in the most diverse frameworks in a coherent and compatible way. The ISSN International Centre is the registration institution officially designated by ISO for the ISSN.

### What is the ISO 4 standard?

The ISO 4 standard defines the rules for the abbreviation of title words and titles of publications. The words of the List of Title Word Abbreviations are abbreviated in accordance with this standard, for which the ISSN International Centre is the maintenance agency since 1974. In conformity with the field of application of this standard, the abbreviations can also be used for the abbreviations of titles of non serial publications.

### What is the ISO 2709 standard?

The ISO 2709 computer format is the universal standard which is used in the library world for bibliographic records. If you do not work with an integrated library system, you may nevertheless use ISO 2709 based records with tools such as MARC RTP, MARC.pm or those proposed by the Library of Congress.

### Other standards

In addition, the ISSN, as an international identifier, uses various standards, defining the rules for transliteration and the character sets, or determining language and country codes.