IAEA
International Atomic Energy Agency

Nuclear Information and Knowledge

News from the Nuclear Information Section
International Nuclear Information System (INIS) & IAEA Library
No. 12, March 2012

In this issue

To our Readers

Nothing endures but change! This wise saying came from the Greek philosopher Heraclitus over 2500 years ago. As pertinent now as it was then, it tells us that through time all things undergo change and that with every change there is an opportunity for something new to happen. Aristotle contemplated that for a change to occur, something new needs to come into being, something old needs to pass away, while something stays the same throughout. In 2011, the old INIS Online Database was replaced by the new INIS Collection Search, but our commitment to offer free online access to millions of INIS records remains the same. In 2012, a new Nuclear Information Section (NIS) was born bringing together INIS and the IAEA Library, the old INIS & NKM Section passed away, but the commitment to offer high quality information and services to our users remains the same.

This issue of the Nuclear Information and Knowledge newsletter is devoted to the topic of constant change. We start with a summary of INIS and IAEA Library activities in 2011, write about the introduction of the new INIS search system based on Google technology, and continue with the restructuring of the Department of Nuclear Energy (NE). This restructuring included the establishment of a new section to deal with synergetic aspects of information management in the form of modern library services combined with a powerful, and one of the world's largest, collections of published information on the peaceful uses of nuclear science and technology.

Articles on the International Nuclear Library Network (INLN) and INIS in the World show just some of the ways to bring NIS products and services closer to the world of scientists, researchers and students around the world, while an article on eBooks in Libraries talks about a future beyond circulating collections.

Inspirational reading!

Dobrica Savic

INIS and IAEA Library Restructuring

The Director General of the IAEA approved an overall restructuring of the Department of Nuclear Energy (NE). This included establishing a new Nuclear Information Section (NIS) comprising INIS, IAEA Library and Systems Development and Support Group.   Read more

NIS 2011 Highlights

In 2011, the **International Nuclear Information System (INIS)** continued to play an important role in managing world nuclear information, remaining a main source of nuclear information for many IAEA Member States. A total of 3,367,451 bibliographic records and 309,627 full-text documents are now available to the public.   Read more

During the last 12 months the **IAEA Library** continued providing effective information services, complementing its print collection with an increasing number of electronic resources. The focus is on tailoring customer services to meet clients' needs.   Read more

INIS Collection Search

The 1st of September 2011 will go down in the history of INIS as a date when the old INIS Online Database (IODB), was replaced by the new INIS Collection Search (ICS) web application. This represents the most important outcome achieved in 2011 and can be considered one of the major improvements of the services provided to users since the establishment of the INIS Secretariat.   Read more

International Nuclear Library Network (INLN)

Throughout 2011, members of the International Nuclear Library Network (INLN) continued to contribute to nuclear information and knowledge management on a global scale.   Read more

INIS in the World

The INIS Secretariat has established a section on its website called "INIS in the World". This area is used to publish news and information, such as special events, presentations, training, newsletters or information materials, from national INIS centres around the world. The latest contribution came from the national INIS centre of Japan.   Read more

New INIS Members

During 2011 three new Member States joined INIS: The Republic of Chad, the Islamic Republic of Mauritania, and the Gabonese Republic. This brings the total number of INIS Members to 151. We would like to welcome those new members on board. Names and contact information of the new INIS Liaison Officers is available on the INIS web site.

eBooks in Libraries

Following the influx of portable technologies and the proliferation of modern communication tools, libraries are inventing a future beyond circulating collections, and are becoming a community platform for unique reading experiences and content.   Read more

Meetings

Forward to a colleague

Know someone who might be interested in the NIS Newsletter? Why not forward it to them?

Unsubscribe

If you don't want to receive the Newsletter any more, please unsubscribe.

- 36th Consultative Meeting of INIS Liaison Officers, 4-5 October 2012, Vienna
- Meeting of International Nuclear Library Network (INLN), 5 October 2012, Vienna
- INIS training seminar, 14-16 November 2011, Vienna
- The 13th INIS/ETDE Joint Technical Committee Meeting, 20-21 October 2011, Vienna

Web statistics

January — December 2011

Site	Visits	Page-views
INIS website	29,587	79,644
Members' site	1,738	6,251

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INIS and IAEA Library Restructuring

Early January 2012, the Director General of the IAEA approved an overall restructuring of the Department of Nuclear Energy (NE). This included establishing a separate Nuclear Knowledge Management Section and creating the Nuclear Information Section (NIS).

The newly created Nuclear Information Section consists of:

- The INIS Unit
- The IAEA Library Unit
- The Systems Development and Support Group

This restructuring and the creation of the NIS provides an opportunity for further enhancing existing information products and services, and introducing new ones — all with an eye towards advancing higher organizational efficiency and effectiveness.

The Content Management Group, the Database Production and Imaging Group, and the Capacity Building and Liaison Group have all been combined to create one single, monolith INIS Unit. Ms. Taghrid Atieh is the new Head of the INIS Unit, Ms. Daw Ah Win is the Head of the IAEA Library Unit and Mr. Domenico Pistillo is the Acting Systems Development and Support Group Leader. Mr. Dobrica Savic is the Head of the Nuclear Information Section.

Dobrica Savic
Head of Nuclear Information Section

INIS in 2011

The International Nuclear Information System (INIS) was established by the IAEA, in collaboration with interested Member States and international organizations, in 1969. The main objective of INIS was to provide access to information on scientific literature on the peaceful uses of nuclear energy published worldwide. INIS operates under special membership arrangements that set specific duties and privileges. Chad, Mauritania, and Gabon joined INIS in

2011, bringing the total number of INIS members to 151 (127 countries and 24 international organizations). In 2011, 109 914 bibliographic records were added to the INIS Collection, making a total of 3 367 451 records available to the public. An additional 13 586 full-text documents were prepared and uploaded, bringing the total of full-text documents available in the Collection to 439 314, of which 309 627 are available to the public. This collection of documents on the peaceful uses of nuclear science and technology is now fully indexed and searchable online using Google-based technology. Over 50 000 searches and 3500 downloads were performed monthly.

The 13th INIS/ETDE Joint Technical Committee Meeting (JTCM) was held from 20 to 21 October 2011 in Vienna, Austria and 12 countries participated. 27 Actions and Recommendations were adopted as guidelines for cooperation and direction for the next two years.

The joint INIS/ETDE Thesaurus, Revision 2.4, was issued in April and contains 21 881 valid descriptors and 8675 forbidden terms.

The INIS Online Database was replaced by the Google-based INIS Collection Search web application, improving search performance and accuracy. By the end of 2011, the monthly average of Collection searches exceeded 40 000, and 4 000 files were downloaded. INIS production and release processes were redesigned to be based on XML format, removing one barrier for Unicode compliance. IT infrastructure used to support INIS business was consolidated and upgraded.

Training, assistance and feedback was provided to a number of INIS centres, improving all aspects of their INIS operation capabilities. In 2011, INIS also organized a well-attended regional (AFRA) training course in Morocco, and a training seminar in Vienna. Overall, 40 staff members from Member States in different regions were trained on all aspects of INIS activities and operation.

A new set of two INIS database archival DVDs was developed and made available to Member States. The distribution of INIS full-text NCL to Member States was made available on DVD instead of CD-ROM.

Assistance in promotional materials was provided to INIS Liaison Officers to promote INIS within their national boundaries. A number of presentations were delivered at IAEA in-house meetings to delegates from Members States about INIS and its activities, encouraging greater contributions from the members.

INIS was also very active in the preservation of nuclear information. In 2011, over 630 000 pages were digitized in close cooperation with Member States. A number of IAEA digitization projects and initiatives were supported.

180 computer program packages from the OECD/NEA Data Bank were provided to 21 IAEA Member States, 76 codes received from IAEA Member States were dispatched, and 19 new computer packages were received from IAEA Member States.

The commitment of INIS Members, the enthusiasm of INIS staff and a forward-looking strategy puts INIS in a position to meet the information needs of today and of future generations.

INIS Secretariat

IAEA Library in 2011

Hybrid Collection and Novel Nuclear Information Services

The IAEA Library continued providing effective information services, complementing its print collection with an increasing number of electronic resources. The focus was on tailoring customer services to meet clients' needs.

In 2011, the number of visitors increased to over 1200 per month. Over 15 000 research requests were processed, and the number of loans to users increased to more than 20 000. Modern information technology provides the Library with an opportunity to bring personalized products and services to customers; the Library service usage statistics confirm the demand for such services. 511 personalized user profiles were created and 41 379 information packages were delivered. Compared to 2010, these numbers increased by 58%, while customized training increased by 43%. More book displays were created based on customers' interest, which led to an increase of 34% in the number of loans. Innovative approaches for the Library's Communication and Outreach programmes were adopted to include tailor-made trainings and workshops, delivered in a timely manner. While digital collections serve to bring increased interest for Library resources, the increasing number of visitors and book loan statistics reaffirm the constant demand for strong print collections.

Projects undertaken

Technology has provided opportunities for the IAEA Library to move from the role of an independent repository and become a network of knowledge-sharing communities. In response to the increasing demand for digital content distribution and access, the IAEA Library implemented a project jointly with INIS to preserve and provide online access to full text IAEA out of print publications. 303 volumes of such publications were digitized and are now available through the online Library catalogue.

The digitization of the audiovisual collection has culminated in a digital repository of more than 700 items. These are now available for online streaming through the IAEA Library catalogue. Through this project, the audiovisual collection was revamped, while new and innovative uses of films are now available.

A pilot project of introducing eReaders (Kindle, iPad) has also been implemented. Electronic devices, preloaded with eBooks, were offered for loan in a testing phase; once officially introduced they will allow the Library to promote our rich and diverse collection of electronic materials, currently 37.5% of the whole collection.

The exchange of nuclear information among members of the International Nuclear Library Network (INLN), coordinated by the IAEA Library, has also increased. The INLN has developed into a community of practice, with the IAEA Library providing guidance on best practices in nuclear information management.

IAEA Library

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The INIS Collection Search replaces the INIS Online Database

The 1st of September 2011 will go down in the history of INIS as a date when the old INIS Online Database (IODB), was replaced by the new INIS Collection Search (ICS) web application. This represents the most important outcome achieved in 2011 and can be considered one of the major improvements of the services provided to users since the establishment of the INIS Secretariat.

The past

The INIS Collection is made up of two parts: 3.3 million bibliographic records of scientific literature on peaceful use of nuclear energy and more than 300 000 full-text documents of 'grey' non-conventional literature (NCL), not readily available from sources other than INIS. The INIS Online Database has been available since 1998.

The IODB was built using BASIS© proprietary database software technology to store and search the INIS Collection. In the beginning, the system was accessible only upon subscription, thus its use was restricted. This limitation was removed in April 2009, when the INIS database was opened to Internet users worldwide.

Over the last years, the INIS Online Database has been continuously improved and new features have been added. Since 2010, increased usage impacted the performance of the system, making the IODB web interface slow and frequently unavailable to users. Furthermore, too much effort and time was required to keep it operational and it was not Unicode compliant.

The present

Following the recommendation of the 35th INIS Liaison Officers meeting, the new ICS has been built on top of Google Search Appliance© technology, hence offering better performance, reliability and ease of use. Bibliographic records in the INIS Collection can be searched by metadata fields such as abstract, author, country, descriptors, language and title and users can build and manage complex queries based on these fields. Full-text search of NCL documents was included, increasing the accuracy of search results.

Results obtained from different searches can be grouped and exported in standard output formats, while respective citations can be visualized and copied for further use. The web interface is accessible in different languages and simultaneous searches can be performed in multiple idioms as well. While the ICS is open to all without any subscription or fee, registered users can access additional features, such as creating their own profiles and saving their favourite queries and settings.

By integration with the Joint INIS/ETDE Thesaurus in the ICS, INIS users can now consult over 30 000 well defined nuclear terms and fine-tune queries before they are performed. The INIS Collection Search is also Unicode compliant, thus improving the quality of search results. The introduction of the ICS therefore removed one of the last barriers to Unicode compliance of the whole INIS data processing system.

A new INIS Collection Search widget has been created and can be integrated into third-party websites. The users of third-party sites can query the INIS Collection through the widget, thus being redirected to the ICS, where search results are displayed as if the query had been launched directly from the INIS Collection Search web interface.

The future

The INIS Collection Search has been well received by INIS users. A number of suggestions for further enhancements were identified and, while the web application has been already upgraded to a newer version at the end of 2011, INIS will continue investing in improving ICS' existing functionalities as well as introducing new features.

Here are just some of the new developments planned for the following months:

- Integration of the INIS Collection Search and the INIS Multilingual Thesaurus
  The INIS Multilingual Thesaurus is a unique thesaurus in the nuclear field and is available in all six official languages of the IAEA, as well as in German. It is used for indexing and describing nuclear information and knowledge in a structured form. The descriptors in the INIS Multilingual Thesaurus will be available for the users to refine their queries before they are performed.

- Full dynamic access to the remaining INIS authorities
  The first two INIS authorities (languages and countries), have already been integrated in the INIS Collection Search. Following the same approach, the remaining three INIS authorities, namely subject categories, report prefixes and journals, will be integrated in the Advanced Search as well.
- Extension of sources for the INIS Collection Search

Besides the actual INIS Collection, plans include collecting and indexing other information resources in the ICS.

The information gathered and maintained in the INIS Collection is a result of over 40 years of collaborative effort made by INIS and its Member States. We believe in committing our efforts to further enhancing the INIS Collection Search web interface, so that this impressive accumulated knowledge will be easier to access and made more useful, helping to better promote the peaceful use of nuclear information.

Domenico Pistillo
Acting Leader
Systems Development and Support Group

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International Nuclear Library Network (INLN) — Achievements in 2011

Throughout 2011, members of the International Nuclear Library Network (INLN) continued to contribute to nuclear information and knowledge management on a global scale. At a time when digital resources are growing in great proportions, the INLN further facilitated the nuclear information exchange, providing a forum in which knowledge created through inter-organizational sharing was disseminated.

Resource sharing is a well-established practice among the 36 nuclear libraries, of which 27 countries actively participate. Requests for Information (RfIs) among members have more than doubled in 2011, an increase of 124.7% compared to 2010, largely due to the need for more information support during and after the Fukushima Daiichi incident. The Document Delivery service remains the major attraction of the INLN, representing the largest share of requests. Research support service and requests for Interlibrary Loan are also a strong offering to INLN members. Finally, a newly introduced service of providing guidance on nuclear information and knowledge management via email, telephone or Skype, already represents 7% of service requests, marking a trend for the future.
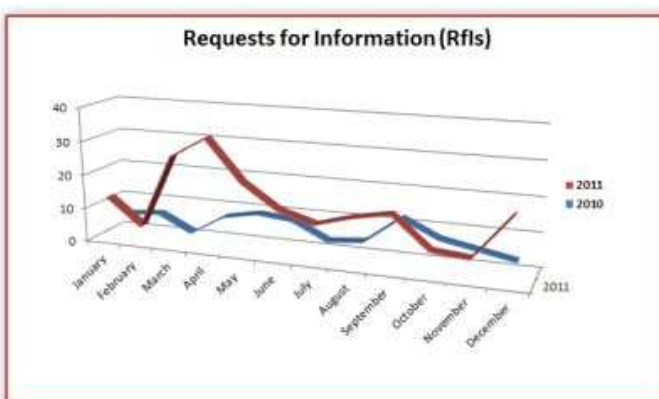
The more requests are submitted and met by INLN members, the more efficient the Network becomes. All Network stakeholders are reaping the benefits: research on nuclear energy is encouraged and assisted, the exchange of scientific and technical information is further fostered, partnerships are strengthened, a nuclear information infrastructure is laid down, and barriers to sharing are overcome. To advance the particular focus on nuclear information and knowledge management, and in order to continue to gain momentum, steps towards an all-encompassing, one point access to the INLN's pool of information resources need to be taken.
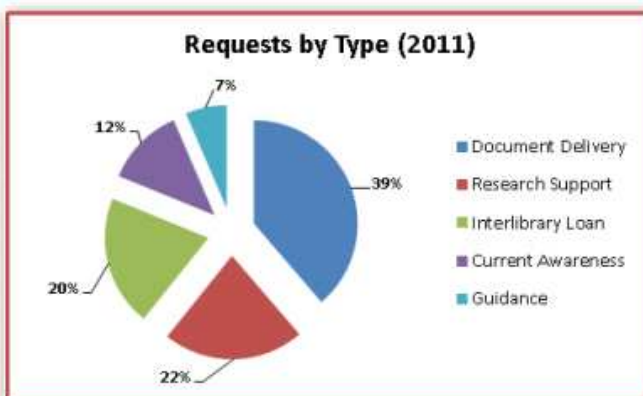
Thanos Giannakopoulos
INLN Coordinator
Librarian/Communication Specialist
IAEA Library

INIS in the world

The INIS Secretariat has established a section on its website called 'INIS in the World'. This area is used to publish news and information, such as special events, presentations, training, newsletters or information materials, from national INIS centres worldwide.

A link to this section is available from the 'In focus' part of the INIS home page.

Here is the latest item submitted, from the national INIS centre of Japan.

INIS promotion at the Global 2011 international conference: Japan National INIS Centre

The Library of the Japan Atomic Energy Agency (JAEA), which serves as the National INIS Centre of Japan, gave a presentation entitled 'INIS-based Japanese Bibliographic Tools for Human Resource Development' at the Global 2011 international conference, which was held in Japan in December 2011.

The purpose of the conference was to discuss medium and long term prospects of atomic energy and nuclear fuel cycles across nations and beyond generations after the Fukushima Daiichi Nuclear Power Station (FDNPS) accident, focusing on drawing lessons from the accident and sharing them globally.

The presenter of the JAEA Library stressed the usefulness of INIS for human resource development in the nuclear field, demonstrating the importance of collecting reliable references to help resolve the accident of FDNPS and also to remediate the environment contaminated by radioactive materials. He introduced two Japanese bibliographic tools based on INIS, i.e. the 'Transliterated Japanese journal title list' and the 'INIS Thesaurus in Japanese', elaborated to help Japanese INIS users searching for articles or documents to better match their needs.

The INIS Secretariat strongly encourages all national INIS centres to share their various promotional activities with the INIS community, by sending information on their latest activities to the INIS Secretariat.

Taghrid Atieh
Head of INIS Unit

eBooks in Libraries

Following the influx of portable technologies and the proliferation of modern communication tools, libraries are inventing a future beyond circulating collections, and are becoming a community platform for unique reading experiences and content. Different business models are being pursued and are increasing the chances of success.

When the idea of lending either eBooks or eReaders initially surfaced, it did have its sceptics. Today however, services for portable devices have already been introduced in a number of scientific and academic libraries worldwide. And even though challenges faced both by libraries and vendors remain, recent statistics suggest that eBooks or registered eReaders lending is taking off. In the USA, 67% of public libraries offer free access to eBooks for their customers according to the American Library Association. Usage of eBook devices or of eBooks lending in Europe and in Asia is also high.

The history of the Ebook dates back to the Data Discman (1990) and the Newton Apple (1993). Yet technology has come a long way in order to compensate for libraries' disassociating themselves from the codex, the original library brand, and its requirements. After the breakthrough of the E-Ink (MIT), and later of the PVI, different eReaders implementing different formats abound; the most common are the PDF, EPUB, and Mobipocket formats which allow for a varied reading experience. EPUB, an open standard based on XHTML and XML, despite allowing individually customized text presents slight problems when displaying formulae, tables and images. Tablets implementing the PDF format, on the other hand, are more precise in presentation, but offer no flash support.

Currently, a licencing model allowing for access control via the IP range is the lowest common denominator for librarians, vendors, third party services (Overdrive, Ebrary, Zinio, Onleihe) or aggregator services (NetLibrary by EBSCO, Ebrary, MyiLibrary). EReaders are registered to one person at a time, and Digital Rights Management is connected to a registered eReader. Storing eBooks on an eReader is frowned upon by publishers; at the same time, Librarians criticize the lack of an Inter-Library loan option for eBooks.

The main challenge, however, is the application of physical paradigms to digital commodities (either born or turned digital): library customers need to be onsite in order to access the eBooks and; libraries are only able to lend one copy of an eBook to one individual at any given time. As the difference between dissemination and duplication gradually fades, the concept of the 'copy' loses its value. Concurrently, the notion that libraries own the books they hold — as they do with their physical copies — also becomes blurred.

Various models have been examined and re-visited by vendor initiatives (Elsevier, Springer) that aim towards developing new technologies supporting learning on screen, and the support of emerging new standards such as EPUB3 – enhanced further by interactive elements like video and animated infographics.

As portable device technologies continue to evolve exponentially, the conversion of eReader implemented formats – EPUB to PDF and vice versa – will become less and less erratic, leading to greater interoperability among platforms of suppliers of digital content. The goal, however, of the scientific library remains: to collect, occasionally create and always preserve knowledge, regardless of format, and ensure free access to it for the community.

Thanos Giannakopoulos
Librarian/Communication Specialist

IAEA Library