

8th Conference on Grey Literature and Repositories

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INIS: Nuclear Grey Literature Repository

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Presentation at a glance

- Challenges and solution
- IAEA nuclear information goals
- International Nuclear Information System (INIS)
- INIS collection
- Search engine
- ICS simple and advanced search
- Main features of the INIS Collection Search (ICS)
- Advantages and disadvantages
- Lessons learned

Challenges and solution

Challenge

How to increase use, accessibility, usability, and expandability of an on-line repository with 3.8 million bibliographic records and over a million full-text nuclear related documents

Solution

- Make it open and freely accessible to the public
- Replace a legacy database search with a top-of-the-line one
- Simplify the basic search interface and improve the advanced search
- Incorporate rich features but make them as discrete as possible
- Incorporate with Google.com, Google Scholar and other search engines



inis.iaea.org/search

International Atomic Energy Agency (IAEA)

■ International Atomic Energy Agency (IAEA)

- The world's leading Agency for cooperation in the nuclear field
- Created in 1957 as part of the United Nations family
- The IAEA works with its 165 (as of September 2015) Member States and multiple partners worldwide to promote safe, secure and peaceful uses of nuclear technologies
- The IAEA Secretariat is based in Vienna, Austria, with 2300
- Multi-disciplinary professional and support staff from more than 100 countries



■ IAEA nuclear information goals

- Foster the exchange of scientific and technical information on the peaceful use of nuclear science and technology (collect, process, preserve and disseminate)
- Increase awareness in Member States of the importance of maintaining efficient and effective systems for managing nuclear information resources
- Assist with capacity building and training
- Provide information services and support to Member States

International Nuclear Information System (INIS)

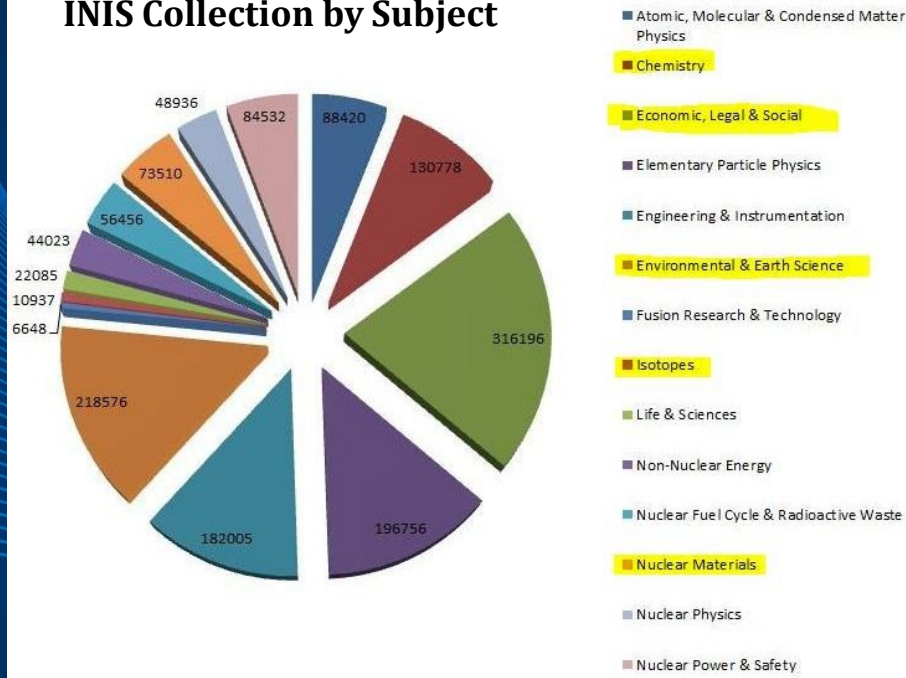
- One of the world's largest custodians of non-conventional published literature in the field of nuclear science and technology
- Established as part of the IAEA in 1970
- 130 states and 24 international organizations are INIS Members
- The role:
 - to collect and process bibliographic metadata and full-texts of nuclear literature published in IAEA Member States
 - to electronically preserve non-conventional or 'grey' literature, such as IAEA documents, policy reports and other full-text publications from Member States
 - to make the INIS Collection of publications freely accessible to all Internet users around the world

Free, open and unrestricted web access
to the INIS Collection since April 2009

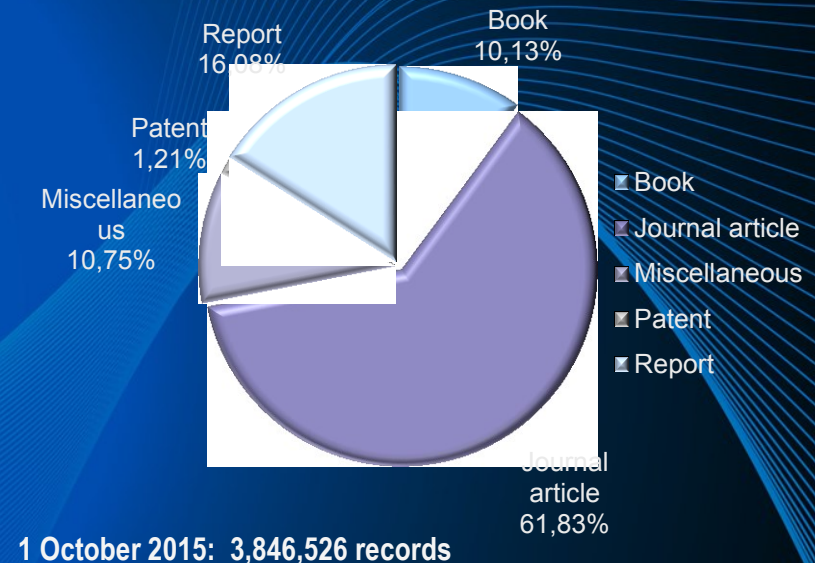
INIS collection

- Average annual input 120,000+ bibliographic records
- Collection status on 1 September 2015
 - over 3.8 million bibliographic records
 - 1,070,000 full-text documents (NCL), 750,000 INIS & 320,00 other sources

INIS Collection by Subject



Bibliographic Records by Type

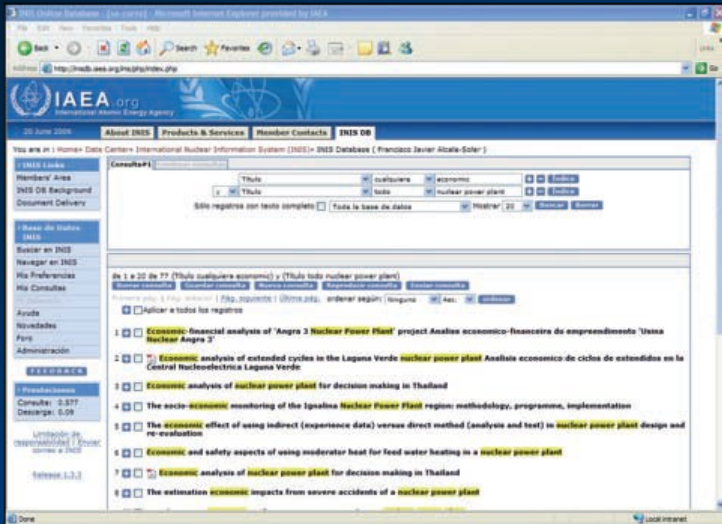


Search engine

Old Search 1970-2011

BASIS RDBMS

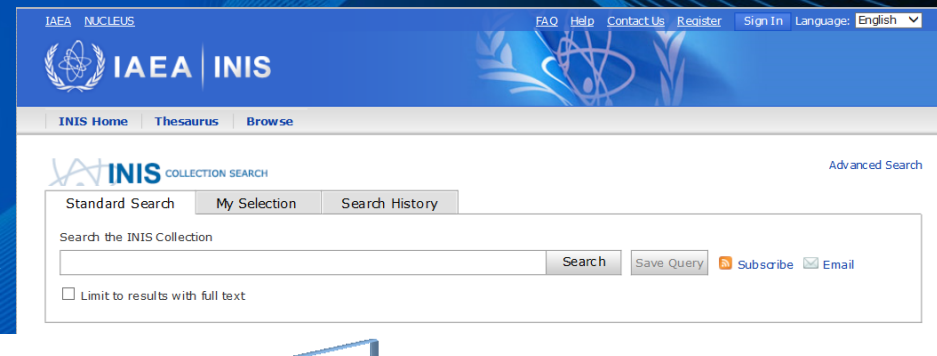
- Ownership and support (OpenText)
- Speed
- Cluttered interface made for librarians
- Only advanced search
- Full-text indexing not implemented
- Multilingual interface/search support
- Support for use of thesaurus and authorities



New Search 2011

Google Search Appliance (GSA)

- Great speed and scalability
- Uncluttered, easy to use start-up interface
- Advanced options to broaden or tighten search
- Full-text indexing
- More relevant results
- Faceted/filtered search



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INIS COLLECTION SEARCH

Advanced Search

Help - All words

All the terms entered in this textbox will be searched EVERYWHERE in the search results. All the terms will appear in the results, but not necessarily together.

Example: if you enter the terms *nuclear safety aspects*, all the search results will contain all of the words "nuclear", "safety" and "aspects".

Search INIS Collection for documents that...

Include:

All words

But do not include:

Anywhere

Clear All

Add Another

Add Another

Search

Also Search:

- ☐ 中文
- ☐ English
- ☐ Français
- ☐ Deutsch
- ☐ 日本語
- ☐ Русский
- ☐ Español

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Advanced Search

Search INIS Collection for documents that...

Include:

All words

But do not include:

Anywhere

Abstract
Author
Country/Org.
Descriptors
DEC
DEI
INIS Issue
INIS Volume
Journal
Language
Library Subject
Record Type
Ref. Number
Rel. Record
Report Number
Source
Subject Category
Title
Publ. Year

Help - All words

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Standard Search

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Clear All

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But do **not** include:
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Clear All

Add Another

Add Another

Search

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INIS Collection Search Highlights

Main features of the INIS Collection Search (ICS)

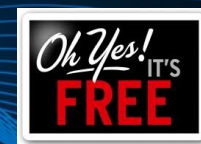
■ Platform

- Google Search Appliance© technology - renowned, simple, fast, flexible
- Project started in 2010. Current interface version 4.4, May 2014
- Virtual servers within the IAEA
- 24/7 availability



■ Accessibility

- Free and open web-based application. Nothing to install
- Mobile Apps for iPad, iPhone, Android
- Widget for searches from other websites with or without filter

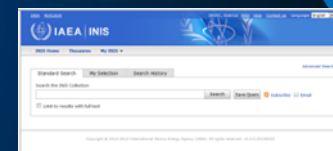


■ Ease of use

- Intuitive, self-explanatory initial screen
- No previous INIS Collection knowledge required
- A single search box communicates confidence to users that our search tools can meet their information needs from a single point of entry

■ Advanced Search

- Offers more precise search
- Metadata and Boolean search
- Query builder with syntax generator
- Search for all words & exact phrase; include/exclude metadata; select languages; range queries (2007..2009) ; dropdown menus



Main features (cont.)

- **Faceted search**

- Dynamic navigation through country, language, publication year, INIS Volume and subject

- **Expandability**

- To new collections, databases, repositories
- To new formats/types of documents



- **Multilingualism**

- ICS interface available in 8 languages
- INIS Thesaurus also available in 8 languages (cross-language search)
- Automatic Google translation into 8 languages



- **Authority Files**

- Journal titles; CODEN; ISSN; Subject category; Descriptor; Country/Organization; Author; Report number

Main features (cont.)

■ Usability

- Print/export results in different formats (PDF, HTML, Excel, XML)
- Download of citations in plain text, RIS format, RefWorks, EndNote
- Creation of RSS feeds
- E-mail search results as a link
- Stop words for languages other than English
- Translation of bibliographic records into other languages using Google Translator
- Browse subject categories, top searches, Thesaurus



■ User profiling

- User registration (Single Sign-On)
- Set up interface language; number of displayed results per page; save queries; search updates; email query results
- Workspace concept (save documents found; translate into other languages)



■ Help

- FAQ (on INIS and on ICS)
- On-line help file
- Pop-up hints: examples on how to build a query using metadata
- E-training course



Advantages and disadvantages

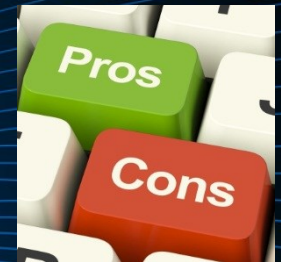
Impact of using GSA

PROS

- Users' familiarity with a Google-type interface
- Many features available out of the box with little configuration
- Possibility to include many features in foreground or background
- Quick and relevant response to searches
- Easy to customize the UI by editing the XSLT
- Scalability

CONS

- Cost: license for records, development, daily running and maintenance
- GSA index and/or database is not in administrator's control, no direct access to it
- GSA is a search tool. It is not a collection management tool, not a reporting tool, and not a statistical tool
- Branding and long-term indirect impact



Impact of opening access to Google.com and Google Scholar

- 2013: 50,000 searches and 3,000 downloads a month
- 2015: 200,000 searches and 160,000 downloads a month
(95% of downloads are through Google)

Lessons learned

To increase use

- Make the repository open and freely accessible to the public
- Replace a legacy database search with a top-of-the-line one
- Provide full-text of documents

To improve usability (meet user needs)

- Simplify the basic search interface and improve the advanced search
- Incorporate rich features but make them as discrete as possible

To enable expandability (scalability)

- Get a top performance technical solution
- Provide for different record formats

To increase accessibility

- Incorporate it with Google.com, Google Scholar and other search engines
- Invest in promotion

Age si quid agis!

If you do something, do it well!

Thank you!