Learning DSpace 7 and possibilities in the Information management world...





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About DSquare Technologies

- ✓ Registered Service Provider & Tier 1 Certified Partner for DSpace since 2014.
- ✓ 30+ deployments across Education, Judiciary, Public Sector Units, Central/State Government, Research, Healthcare, etc. verticals globally.
- ✓ Managing 98 million plus pages for the Indian Judiciary and volume incrementing at a rapid pace.
- ✓ Comprehensive technology Eco-system to manage journey starting from Data generation till conversion in the knowledge.

Our Accreditations...



GeM assessed DMS OEM



DPIIT Recognized Startup



DSpace Certified Partner

Numbers speaks about our experience & ecosystem

800 million documents managed across Judicial, PSU, Central/State Gov, Education, and Research.

7 Vertical specific solutions for PSU, Government, Education, Research, Judicial, Healthcare, & Archives.

6 Value added solutions for Content Intelligence, Semantics & Multilingualism, Capture, Content Aggregation, & Data Visualization.

Our growth Journey





Eco system of Technologies helping in Data to Knowledge Journey...

Data

Information

Space Space

Economical

DSpace hosting

Knowledge



Production Document Capture workflow



Multilingual PDF OCR



Dynamic feeds transformation





Al based Key phrase extraction



Hybrid DMS & Workflow Management on DSpace



Knowledge Hub

Collaborative Knowledge Management on DSpace



Open source Business Intelligence solution



DSquare Technologies Overview Success stories...

echn**é**logies



Technovators

Business Objectives of Digital Repository in Institutions

Preservation

- Digital Preservation of Contents
- 2. Provide Content Lifecycle Support
- Workflow for approving content submission
- 4. Defining Taxonomy
- 5. Defining Metadata
- 6. Capable of preserving multiple file types
- Scalable system for managing large volume of content

Search & Distribution

- 1. Multiple search options (parametric, full text)
- 2. Content Discovery
- 3. User experience management for easy content accessibility
- Content accessibility across multiple platforms
- 5. Support for collaborative public services

Content Security

- Role based content access
- Authorized viewing of contents
- 3. Prevention of un authorized distribution of contents
- 4. Compliance with Copyrights requirements

Compatibility

- Compatibility across multiple platforms i.e. mobile, tablet, laptop etc.
- 2. Compatibility of contents across multiple environments
- 3. Industry standard preservation for contents interoperability
- 4. Possibility of integration with other systems for seamless working

Maintenance

- Possibility of data backup and restore by business users
- Application version upgrade for staying up to the speed
- 3. Capable of avoiding single point of failure
- Lesser dependency on IT for maintenance and change request management

Miscellaneous

- Archives specific solution
- 2. Monetizing contents



Evolution in Librarian profile

CONVENTIONAL LIBRARIANS

- Cataloguing and keeping track of library materials
- Advising academics on materials for their courses
- Making sure all users can access library resources & responding to requests from stakeholders
- Promoting the library's resources
- Managing budgets and projects

INFORMATION LEADERS

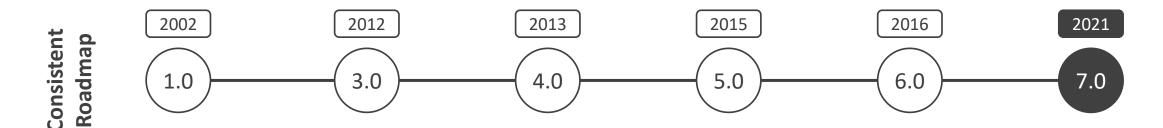
- Managing broader canvas to curate relevant content.
- Regulating information flow.
- Creating Information Architecture and intelligence around content.
- Focus shift from curating content to contextualizing information.
- Enabling content-based insights for decision making.
- Promoting both contents and policies.
- Addressing budgets and projects.



DSpace History

DSpace a fully open source information management platform developed by MIT & HP Labs in 2002. Improved since then by Community for Community to manage millions of records.

Managing entire life cycle of your information Capture – Organize – Preserve – Disseminate securely





User Base

3,000+ listed installations



Geographical Presence

~ 140 Countries



ndian User Base

~ 300 listed installations



Code Contributors

140 listed contributors

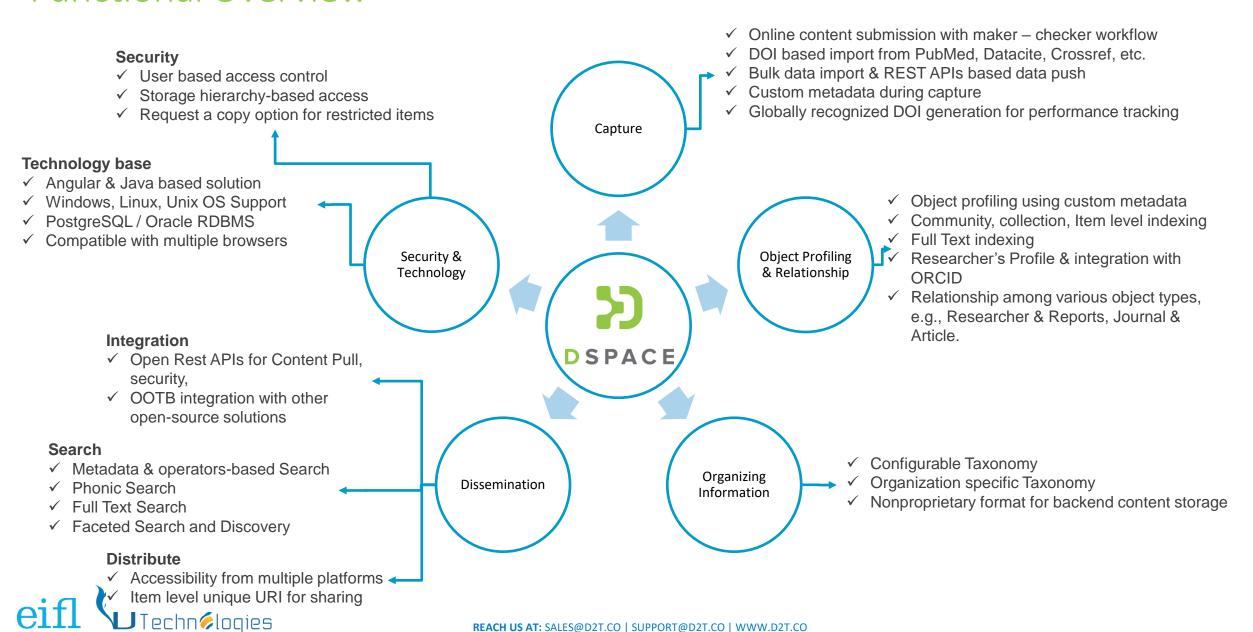


User Support

Registered Service Providers
Well established community forums



DSpace 7 Functional Overview



DSpace 7 Key Highlights...

BUSINESS USE

- ✓ Entities framework enabling profiling of different object types and contextualizing information.
- Metadata import from prominent sources like Crossref, ORCID, Web of Science, etc.
- Consent management introduction for GDPR and other PII related requirements.
- ✓ International Image Interoperability Framework (IIIF) Support added.

TECHNICAL USE

- Developed using Java Springboot and Angular.
- ✓ Independent backend and frontend applications integrated using REST APIs adding to scalability and flexibility.
- ✓ Upgraded Solr search engine version and decoupling from core DSpace for better utilization of the search engine.
- Enhanced integration with external applications.

Above is merely the tip of the iceberg, visit DSpace 7 release notes for more details

https://wiki.lyrasis.org/display/DSDOC7x/Release+Notes



Time for action.... DSpace 7 walkthrough and hands-on practice.

Betterment possibilities in DSpace 7 Few examples

- Advanced Search page with Boolean options
- "Did you mean" doesn't exist on search page
- Search Facets on all Home, Community, and Collection pages
- Search Facet customizations per Community or Collection



DSpace

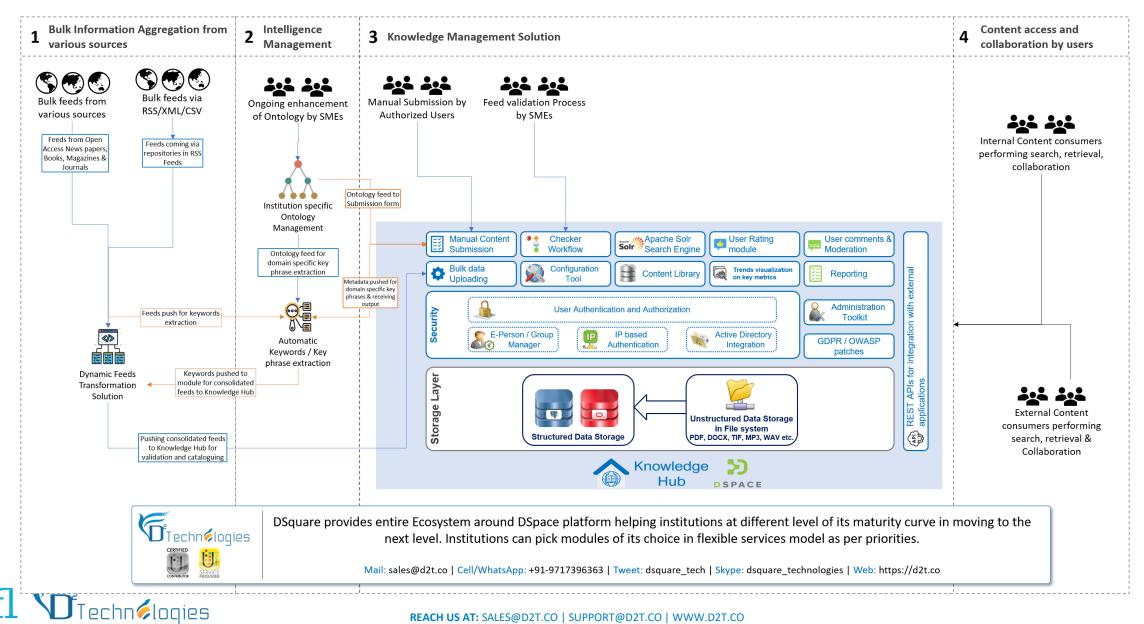
from Digital Library to the Information Management Platform...



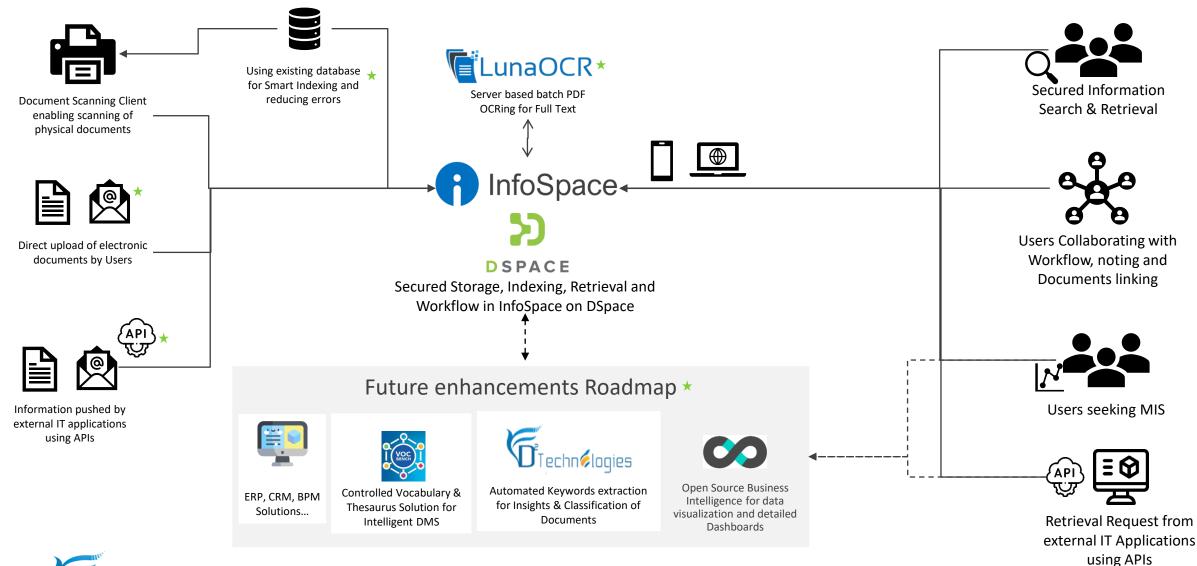


Climbing the Information Management maturity curve

Eco-system around Knowledge Management



Climbing the Information Management maturity curve Office Document Management use case



Ontology Management

Key Features & Benefits

Key Features

- 1. Configurable Keywords / Key Phrase Vocabulary by authorized users.
- Provision of defining relationships between terms
 Thesaurus / related / synonyms from other
 languages etc. for enhanced indexing/searching
- 3. Possibility of **importing external vocabularies** on standard SKOS/RDF standards
- 4. Support API based integration with multiple applications
- Access control management and auditability of actions performed
- 6. Tight integration with **AI based insights extraction** and automated indexing in the case file management

Benefits

- Central solution for managing domain specific ontologies and can be utilized across different applications and courts
- 2. Scalable model for concepts management
- Empowering subject experts to manage domain specific ontologies with lesser dependency on IT resources
- Addressing issue of semantics and managing uniform metadata creation across organization
- Enhanced analytics and conversion of data in knowledge
- 6. Base dataset for automated classification of documents or keywords/phrase extraction
- 7. Reusable dataset for future expansion in Machine learning and Artificial intelligence.



Ontology Management Prominent domains using the solution

On the Web

Vocabularies are often used in building the information architecture for websites, data repositories, information systems, thereby providing terms for indexing and retrieval of information objects.

Public health and medicine

Public health and medicine have CVs in various forms (terminologies, thesauri, ontologies) for defining categorizations and classifications for biomedical investigations, diseases, symptoms, medical errors, etc.

GLAM (Galleries/Libraries/Archives/Museums)

GLAM (Galleries/Libraries/Archives/Museums) have used CVs for a very long time to describe their objects and resources, build catalogues and information systems.

Biology & other scientific disciplines

CVs are widely used in biology for classification of living organisms (e.g. taxonomies of living organisms, classifications of cross-species anatomical entities).

International Organizations

Actively use CVs to standardize terms and translations in international affairs. The most notable examples are the United Nations terminologies translated into six main languages of the UN to eliminate ambiguity in terms used in international communication.

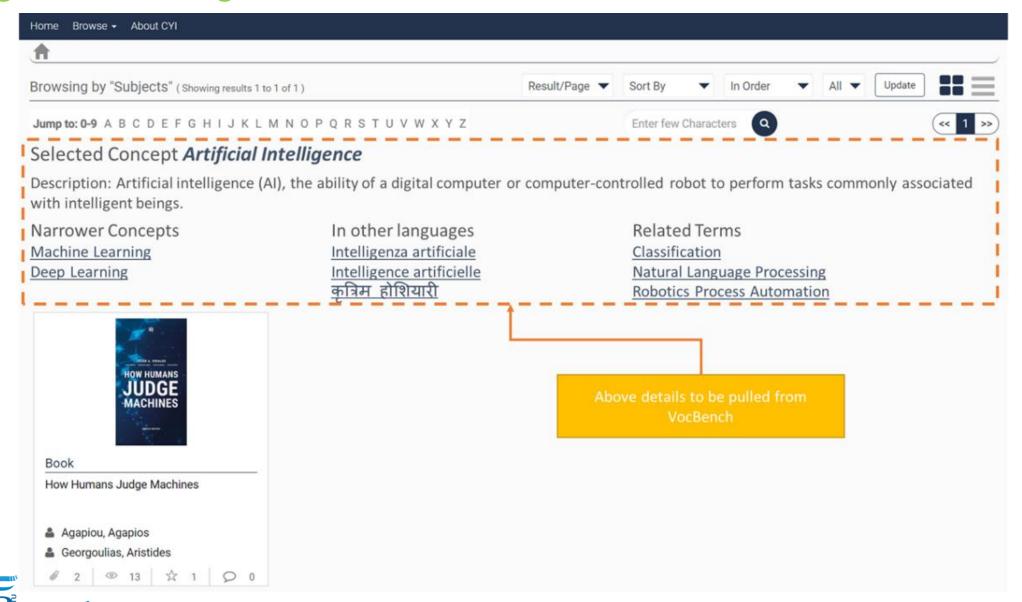
Computer science

Data mining, knowledge extraction, or conversation AI use CVs to classify entities and objects in text or speech recognition (Named Entity Recognition and Named Entity Disambiguation, e.g. CVs used to categorize intent in conversation with a robot).



Ontology Management

Making content intelligent



We are listening...

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