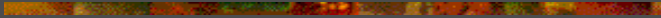# ARCHIMÈDE

Presented by Guy Teasdale
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Bibliothèque de l'Université Laval
CARL Workshop on Institutional Repositories
Halifax, October 13, 2004

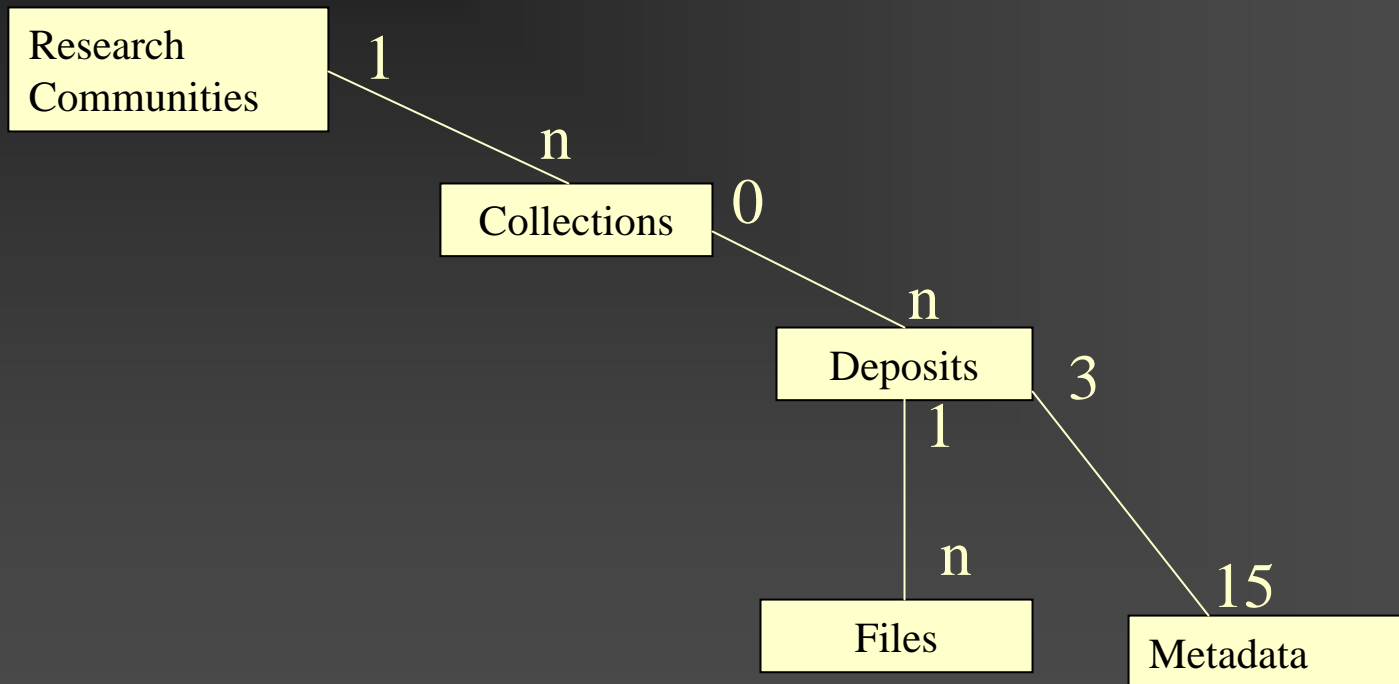# What is Archimede

- Archimede is an institutional repository system, conceived and developed at University Laval Library by Rida Benjelloun, Head of Digital Initiatives Research and Development Office and Nicolas Bélisle

- Archimede has been developed from a range of Java technologies and full Open Source applications.

- Archimede is a decentralized system arranged around auto-regulated research communities.

Documents Repository Structure

Research Communities — 1

Collections — n — 0

Deposits — n

Deposits — 1 — 3

Files — n

Metadata — 15

Archimede Components (part1)

The system can be divided into 5 modules :

- 1. A securized module based on privileges.
    - 5 user types :
        * External user
        * Registered user
        * Research community member
        * Research community administrator
        * System administrator

Archimede Components (part 2)

- 2. A securized module for uploading several documents at the same time, with forms to enter metadatas. The files are hosted in virtual folders that restrict access to authorized users only.

- 3. A navigation system and a powerful search and indexation tool that ensure dissemination of content.

Archimede Components (part 3)

- 4. The system is structured on a repository structure that is OAI compliant, using a Dublin Core metadata set. (example http://carl-abrc-oai.lib.sfu.ca)

- 5. A selective dissemination system is available to keep users informed about new uploads.

Why Develop Our Own System Instead of Using an Existing Open Source Solution?

- Difficulties for changing interface language.

  Archimede has been developed in a multilingual perspective, with i*nternationalizatio*n as a focus (i*18*n). Using the practices of the W3C i18n, the text (or content) of the interface is independent and not embedded in the code. It is then easy to develop an interface in a specific language without having to work on the code itself.

Why Develop Our Own System Instead of Using an Existing Open Source Solution?

■ Archimede is flexible and not dependent on a specific platform. The system can be installed on Linux as well as on Windows. For a library wishing to implement the solution, the system can be easily adapted to the technical infrastructure already in place, thus increasing the efficiency of the implementation process.

Why Develop Our Own System Instead of Using an Existing Open Source Solution?

- Indexation capabilities for metadata and full text.

  Indexation of different document types (XML, HTML, PDF, RTF, MS Word, MS Excel, PowerPoint, Open Office, TXT, Java Beans).

  Mixed indexation that integrates into the same occurrence XML metadatas and full text (PDF, HTML, etc.).

  This is made possible by LIUS, an indexation and search framework developed at University Laval Library.
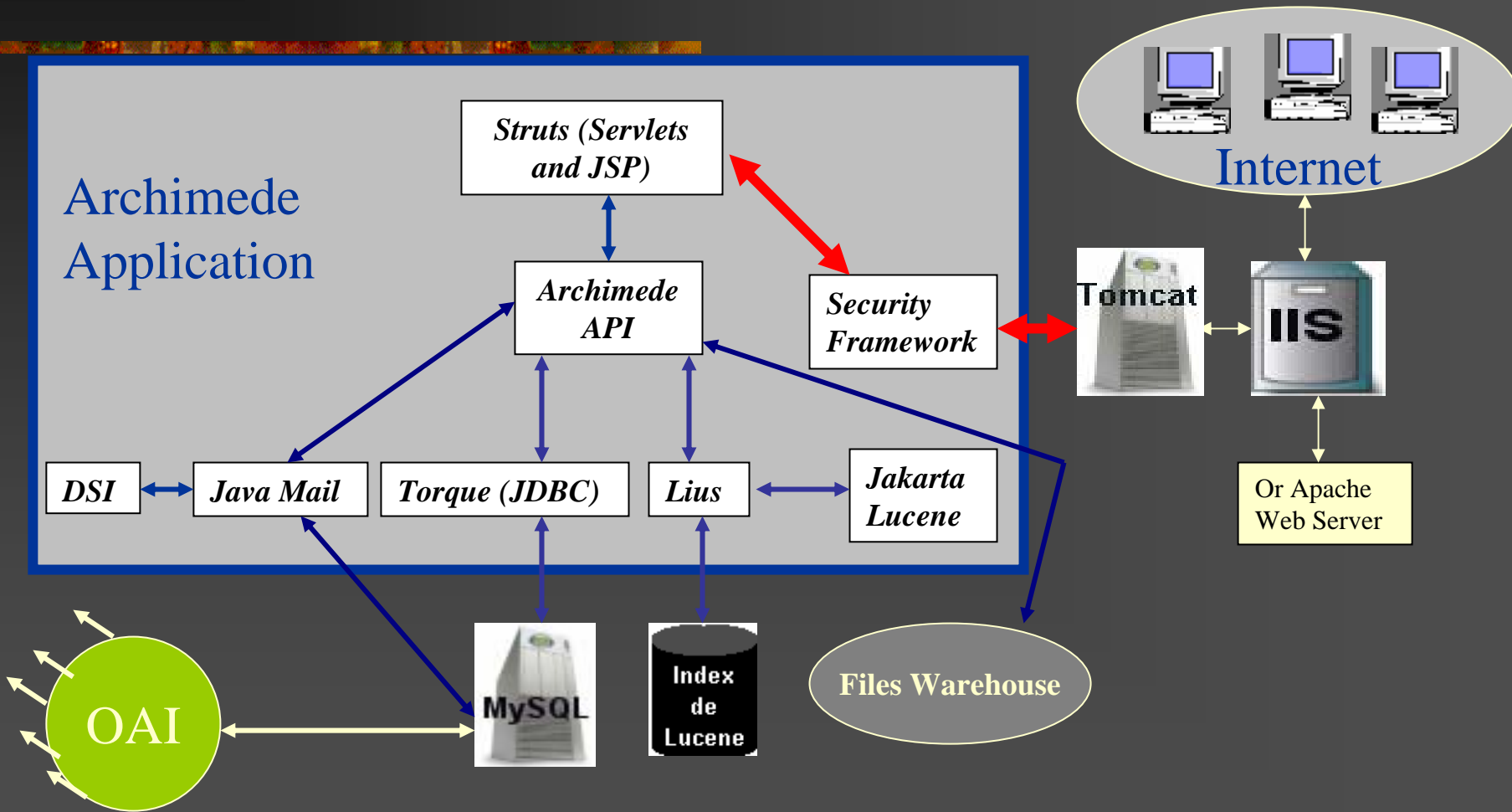
Why Develop Our Own System Instead of Using an Existing Open Source Solution?

- Multiple formats metadatas importation and exportation based on XSLT transformations.

Archimede Architecture

URLS

- Archimede university Laval implementation http://archimede.bibl.ulaval.ca/

- http://www1.bibl.ulaval.ca/archimede/

- SourceForge Open source distribution : http://sourceforge.net/projects/archimede/