Building the future together:

AtoM3, Governance, and the Sustainability of Open Source Projects

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AtoM'S DEVELOPMENT

ICA/CDS OSARIS report v1

ICA/CIT report: Market Survey of Commercially Available Off-the-Shelf Archival Management Software (January 2003)

UNESCO Grant to ICA: Online Guide to Archival Sources Related to Human Rights Violations

Technical analysis begins

WORLD BANK GROUP

Center for Documentation & Research

Archief school

Direction des Archives de France

2002

2008

2001

ICA/CDS, ICA/CIT, UNESCO discuss how to advance OSARIS project

2003

2004

ICA/CIT: OSARIS Functional Requirements report

2005

Peter Van Garderen (Artefactual) hired to build open source application

2006

0.1-ALPHA

2007

0.2-ALPHA

ICAAtoM
open source archival description software

Non-backwards compatible changes in dependencies...

Symfony

- PHP Framework
- Version used in AtoM: 1.4 (deprecated in 2012)
- Current Symfony version: 4.1

elasticsearch

- Search index
- Version used in AtoM: 5.2 (deprecated in Jan 2017)
- Current ES version: 6.2.4

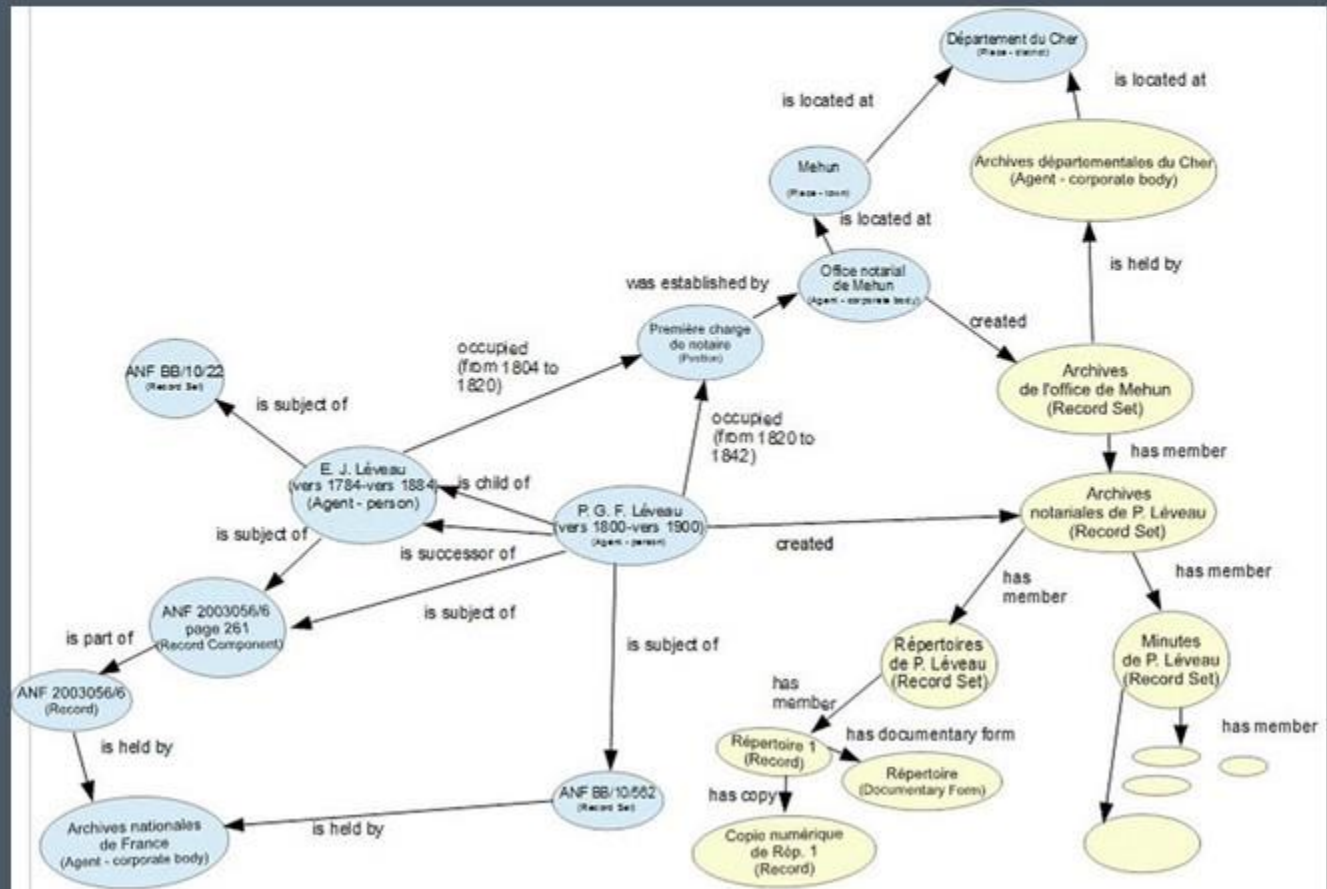# And Major Changes Coming in our International Standards...

Provide an opportunity

for AtoM's evolution
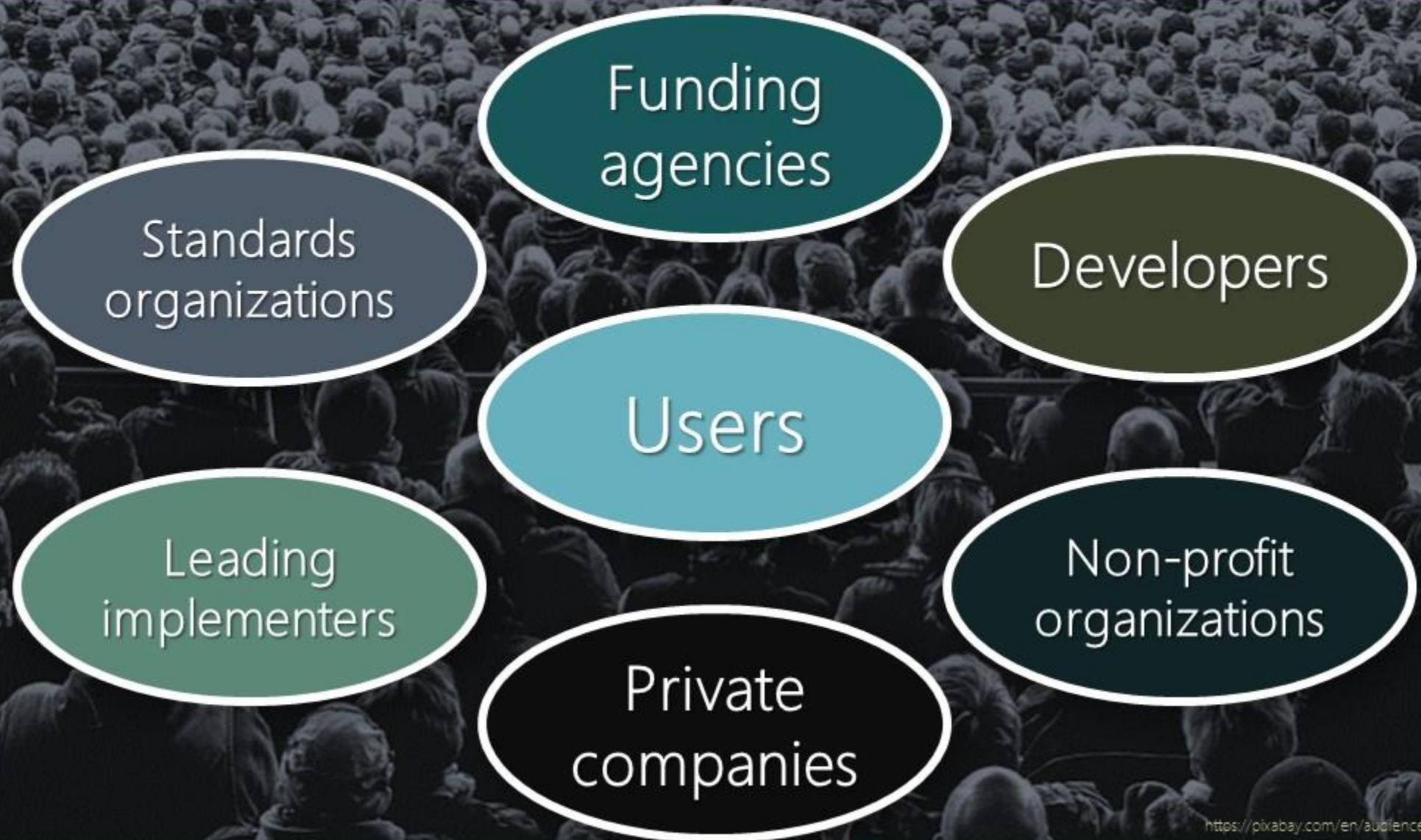
The Open Source Ecosystem

Standards organizations

How does the creation or modification of standards relate to the development of open-source tools? Should standards be created with software development in mind?

Funding Agencies

Funding agencies play a key role in open-source software development, but what is their role once the tools have been developed?

The Open Source Ecosystem

Developers

Leading implementers

Users

Developers work for non-profit organizations or private companies. They may also work for leading implementers, or simply be technically-minded users.

Leading implementers are institutions that provide community support, funding and/or development. These tend to be universities and research institutions.

Having a large pool of users is a sign of software maturity and stability.

The Open Source Ecosystem

Non-profit organizations

Private companies

These organizations provide sustainability for mature open-source software tools by offering software development and release management, hosting, tech support, data migration, training, consulting, documentation, user forums and other critical services. However, finding a viable business model can be a challenge.

Open-source Business Models

When grant funding ends or doesn't cover all costs, there are different ways of making open-source software viable and self-sustaining. Here are three common models:

- Membership model

- Bounty development model

- Services model

Membership Model

The software is free and open-source but purchase of a membership allows users to gain access to certain privileges or services. Some membership models mean that only members get access to certain types of documentation, training materials, issue reporting systems and/or member-only user forums. Other membership models provide privileges such as a role in governance, discounts on training and meeting events, but don't restrict documentation etc. Examples:

- Lyrasis (ArchivesSpace, CollectionSpace)
- BitCurator Consortium
- DuraSpace (DSpace, Archivematica, DuraCloud, Fedora)
- Islandora Foundation
- Open Preservation Foundation (JHOVE, Jpylyzer, FIDO, xcorrSound)

The money raised is used to support continued development and software release management.

Bounty Development Model

The software is free and open-source but development of new features and enhancements depends on one or more institutions providing funding. The new features and enhancements are added to subsequent public releases of the software. Sometimes called "Professional Open Source." Examples:

- Artefactual Systems (Archivematica, AtoM)

- Data Curation Experts (Hydra, Blacklight, Fedora)

- DiscoveryGarden (Islandora)

- Hudson Molonglo (ArchivesSpace)

Services Model

The software is free and open-source, but there are organizations that provide related services such as hosting, technical support, data migration, consulting, training and customization. These organizations may or may not be the lead developers of the tools. Examples:

- Artefactual Systems (Archivematica, AtoM)
- DuraSpace (DSpace, Archivematica, DuraCloud, Fedora)
- DiscoveryGarden (Islandora)
- Cottage Labs (Hydra, Fedora)
- AVPreserve (Archival Management System, Exactly, Fixity + other tools)
- KEEP Solutions (RODA, DSpace + other tools)

Other Open-source models

Franchising model:

The software is free and open-source, but the name and logo(s) are proprietary and can only be used with permission. The owners of the name and logo(s) sell the rights to organizations to provide technical support, hosting and customization services.

Proprietary add-on / "freemium" model:

The software is free and open-source, but organizations develop proprietary add-ons or plugins or have "enterprise" or "professional" versions that add more functionality or scalability.

Open Source Governance

How does the project decide:

- What's included in the core application?

- What's included in each release?

- What bugs and features get prioritized?

- What direction should the project take in the future?

- Who gets to commit code to the project?

- Who defines the license of the project? What license should be used?

- Who maintains the documentation? What about other resources? Forums, webinars, etc.?

- Where funding will come from?

- How community involvement and investment will be maintained and grown over time?

- How will conflicts between community members be managed? What about between maintainers/founders?
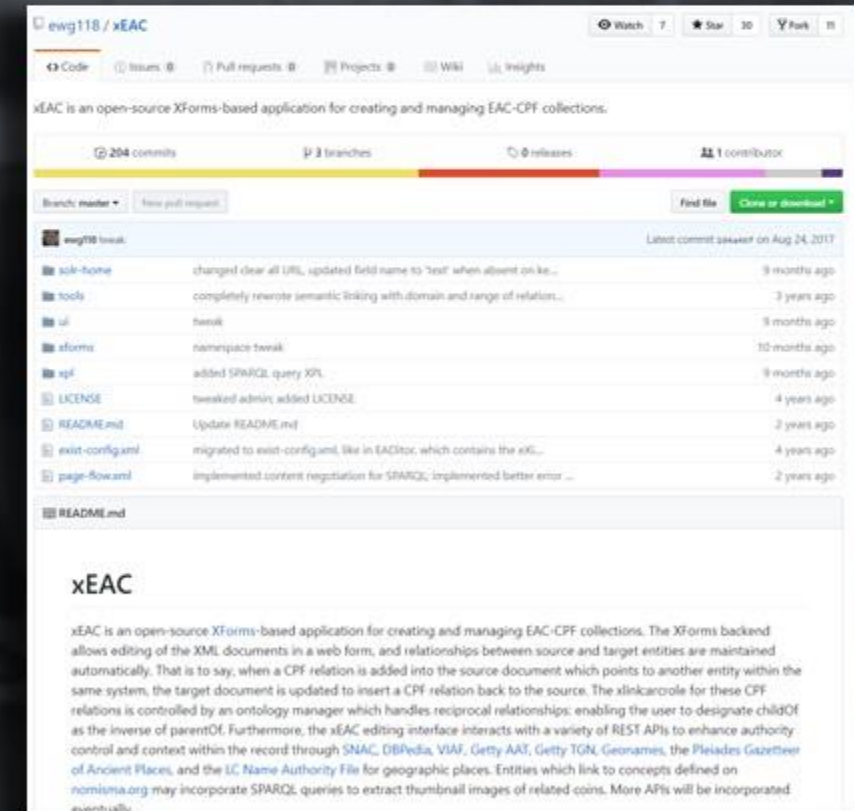
Open Source Governance

Benevolent Dictators

- Project leadership by one person or a small, closed core (often the original author[s] of the project) who make all final decisions

Broader software development examples:

- Linux (Linus Torvalds)
- Python (Guido van Rossum)

Cultural heritage examples:

- EADitor and xEAC (Ethan Gruber)
- ...AtoM and Archivematica? (Artefactual) 😬
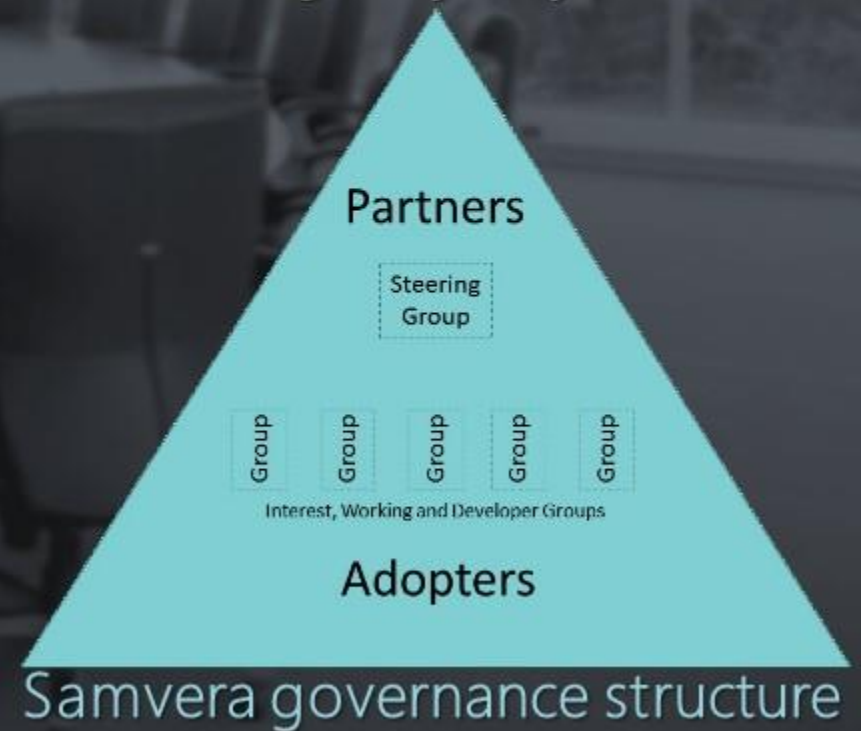
Open Source Governance

Meritocracies

- Active project contributors are given a formal decision making role. Decisions are often made based on pure voting consensus, or else strong majority basis

Broader software development examples:

- Apache Software Foundation

Cultural heritage examples:

- Samvera

Partners

Steering Group

Group Group Group Group Group

Interest, Working and Developer Groups

Adopters

Samvera governance structure

Open Source, Foundations, and Non-Profits

- Provides structure and distance from project creators
- Enables governance to be formalized
- Ensures power doesn't become too concentrated – leadership neutrality
- Can provide liability/risk management via ownership of license and IP
- Ensures no one company or developer pool is favored
- Can employ a membership-driven business model w/o conflicts of interest
- Can apply for grants, etc.
- Can be the organizational home for 1 or many projects

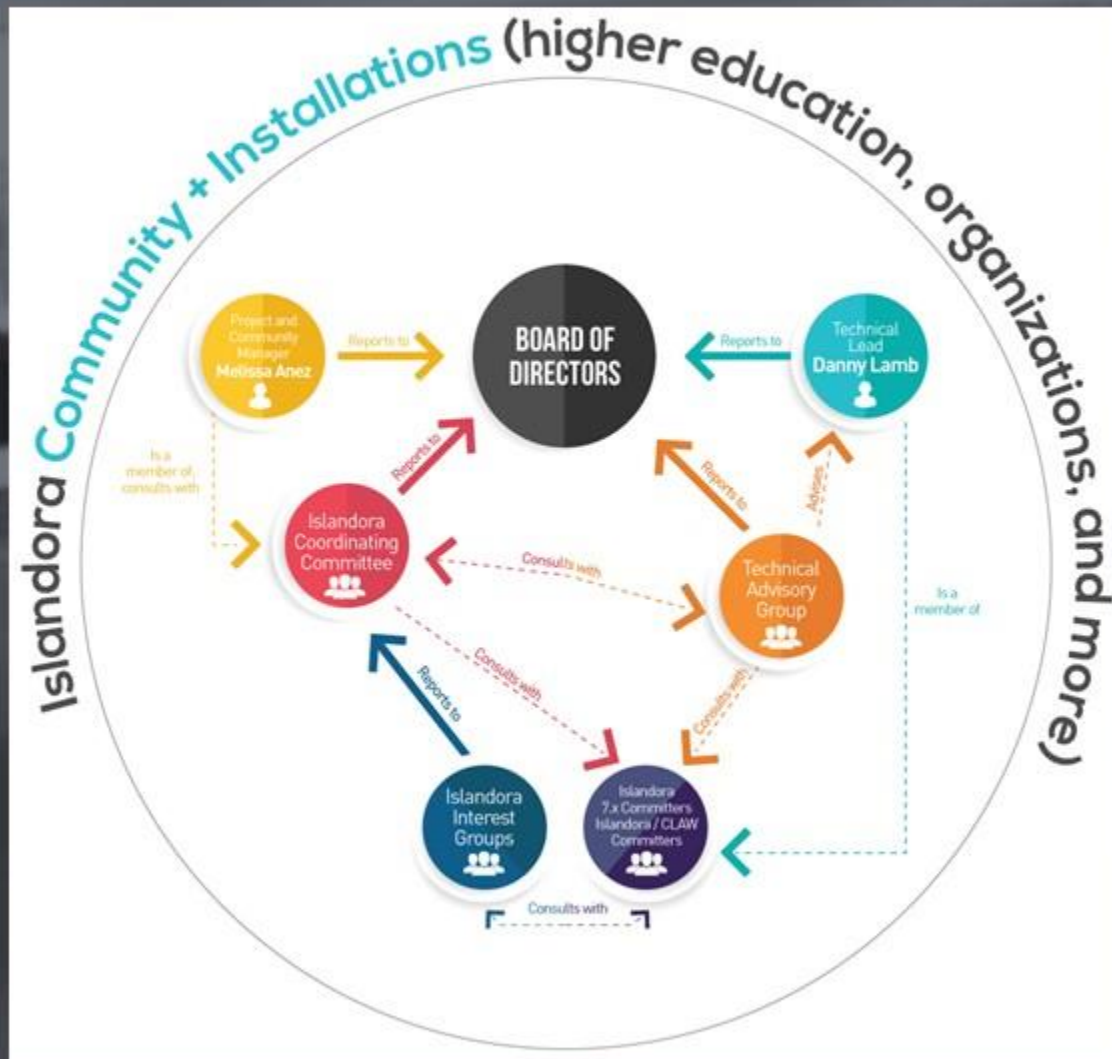**Broader software development examples:**

- Apache Software Foundation
- Linux Foundation
- Free Software Foundation
- Document Foundation
- Eclipse Foundation

Open Source, Foundations, and Non-Profits

Cultural heritage examples:

- Lyrasis
  - ArchivesSpace
- DuraSpace
  - DSpace, Fedora
- Islandora Foundation
  - Islandora
- OPF (Open Preservation Foundation)
  - JHOVE, fido

Islandora Foundation governance structure

https://islandora.ca/if/

There are many more variations...

Almost as many as there are projects

So how will the AtoM project move forward?

??????

Access to Memory (AtoM) Foundation / Fondation Access to Memory (AtoM)

Governance

Inaugural Board of Directors

- Creighton Barrett, Dalhousie University
- Heather Gordon, City of Vancouver Archives
- Paul Hebbard, Simon Fraser University
- Jeremy Heil, Queen's University
- Tim Hutchinson, University of Saskatchewan
- Lara Wilson, University of Victoria

https://accesstomemoryfoundation.org