

at office fibrary

François Renaville Systems & Data Unit



Session Overview

This session highlights the key features of the Discovery experience at ULiège Library—from Primo Local to Primo VE—as well as introduce the new AI-powered Primo Research Assistant and outline the next steps and challenges with Primo NDE.

- 1) From Local Primo to Primo VE: A brief history of ULiège's Discovery evolution
- 2) Introducing AI-Powered Discovery: The new Primo Research Assistant functionality
- 3) Looking Ahead: Primo NDE: Major UX changes, technical shifts, and future integration
- 4) Strategic Outlook & Key Takeaways



Current ULiège Library Portal

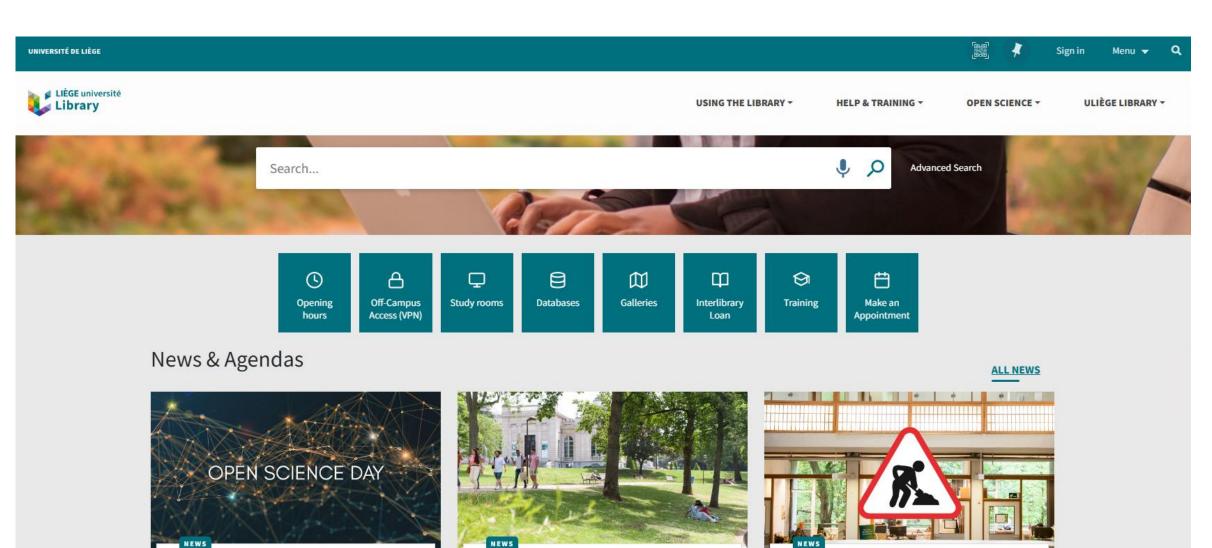
- Library website (Drupal)
- 2) Primo VE Library Catalogue
- 3) Book it (LibCal)

→ ULiège Library

https://lib.uliege.be







Jul 2, 2025

Save the date: Open Science Day 2025

ULiège is organizing their second Open Science Day on Thursday 27th November 2025. For this Jun 27, 2025

Libraries summer opening hours

The "Cramming period" policy will no longer apply from this Saturday, June 28, and some schedule adjustments are planned for this

Jun 23, 2025

Sciences Library : closure extended until September 14

The Sciences Library will have to extend its closure until September 14 due to the B6b interior



From Local Primo to Primo VE



Before Primo Local (Pre-2013)

Traditional OPAC Limitations

• Users had limited access to full-text articles or external resources through the OPAC interface.

Fragmented Access

• Catalogue, link resolver (SFX), and digital repositories were accessed separately, creating user confusion.

Need for Modernization

• ULiège Library sought a unified interface aligned with user habits influenced by tools like Google.

Interoperability Concerns

• Aleph and SFX worked independently, causing metadata duplication and misalignments.

Strategic Decision

 ULiège began planning a modern Discovery layer in 2011, comparing Primo, EDS, and Summon.





Catalogue général

MySource Fin de session Préférences d'affichage Aide

Utilisateur invité

Recherche					Liste d	e résultats	Historique	Mon panier
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Deploying Primo Local (2013)

4.67	Project Timeline	Internal go-live for librarians in Nov 2012, public launch in Feb 2013.
	Local Hosting	First version of Primo was hosted on-site with custom interface development.
	Data Sources	Included Aleph records, ORBi, and external metadata sources via Primo Central Index.
	Staff Training	Phased training ensured librarians were comfortable before public release.
	New Search Experience	Unified access to print, digital, and electronic resources through a single interface.



Lessons from Primo Local

Improved Visibility

• Discovery system significantly increased visibility of electronic and open access resources.

Metadata Challenges

 Maintaining two metadata ecosystems (Aleph and SFX) remained complex.

Customization Needs

• Local Primo required significant maintenance and customization by internal teams.

Limited UI Flexibility

• User interface updates were limited by the architecture and required workarounds.

Catalyst for Cloud Migration

 Helped prepare ULiège Library for transition to Alma and cloudbased Primo VE.





Les bibliothèques Les ressources Nos infos & Services A propos du Réseau Besoin d'aide?

fil d'ariane

RSS 🔊

Ajouter la page au panier

Élargir mes résultats

au-delà des collections ULg

N'afficher que	
Ressources en ligne	(1 418)
Peer-reviewed Journals	(334)
ORBi	(55)
ORBi Open Access	(15)
Actuellement en bibliothèque	(15)
Disponible en bibliothèque	(15)

Type de document	
Articles	(643)
Entrées de dictionnaire	(432)
Articles de journaux	(146)
Critiques	(118)
Livres	(67)
Plus d'options ✓	

Auteur	
Famerie, E	(45)
Bauden, F	(14)
Famerie, É	(12)
Watkins , Douglas	(6)
Rocha, Cristianne Famer	(6)
Plus d'options ✓	

Sujet	
Introduction	(90)

famerie

Rechercher Recherche avancée

J'aime < 0

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J'aime < 0

Voir bX Hot Articles v

Trié par : Pertinence v 1 433 résultats

◆ Précédent 11-20 Suivant →

Mon compte S'identifier

Livre

Harangue Famerie, Etienne [critical editor]; Stasse, Bauduin [critical editor]; Bauden, Frédéric [collaborator]

In F., Bauden (Ed.), R., Waller (Ed.), M., Asolati (Other coll.), A., Chraïbi (Other coll.), & E., Famerie (Other coll.), Le Journal d'Antoine Galland (1646-1715). La période parisienne. Volume I (1708-1709) (Liège, pp. 128-163). Louvain; Paris; Walpole (MA), Belgique: Peeters (2011). 2011

Accès en liane

Ressource en ligne + d'infos 65-F-X ULg.





Bibliographie critique de l'enseignement des langues anciennes aux grands débutants Famerie, Etienne # Fonds de la Recherche Fondamentale Collective d'Initiative des Chercheurs - FRFC [sponsor]

In C., Aziza, M., Dubuisson, & E., Famerie (Eds.), L'enseignement des langues anciennes aux grands débutants: problèmes, méthodes, finalités (pp. 317-353). Liège, Belgium: Centre Informatique de Philosophie et Lettres (1986).

1986

Accès en ligne

Ressource en ligne + d'infos 65-F-XULg





Les mesures de protection des régimes politiques dans l'Athènes archaïque et classique. Tome II. Notes et index Étienne Famerie

Thèse de master

Actuellement disponible en bibliothèque

Où trouver le document? Réserver + d'infos





Transition to Primo VE (2019)

Cloud-Based Solution

• Primo VE integrated directly with Alma, simplifying system architecture.

Unified Management

• Single administrative backend reduced duplication and improved data consistency.

Regular Updates

• SaaS model ensured regular updates for Primo and Alma, reducing technical debt.

Migration Timeline

• Six-month project completed in early 2019, including user testing and training.

Improved Interoperability

• Enabled tighter integration with repositories like ORBi, MatheO, and DONum.



Primo VE: Key Features at ULiège

Data Sources

• Includes Alma, ORBi, MatheO, DONum, and selected external repositories from Belgian universities.

Advanced Dedup/FRBR

• Enhanced deduplication and FRBRization group records for clarity.

Collection Discovery

• Improved visibility for heritage and digitized collections through thematic entry points.

Linked Data Integration

• <u>Test</u> integration with IdRef authority files using Person entity configuration.

Persistent UX Improvements

 Regular updates and community feedback cycles enhanced stability and performance.



Primo VE: Local Data Scope

Comprehensive Integration

• Includes Alma records (print, electronic, digitized), ORBi, MatheO, DONum, and others.

Fine Metadata Control

 ULiège controls indexing, metadata normalization, and display for local sources.

OAI-PMH Harvesting

 Harvests external Belgian institutional repositories, e.g., DIAL, DI-Fusion, ORBi-UMONS.

Statistics (Feb 2025)

• Over 2.5 million local records, including 1.86 million from Alma.

Fusion of Sources:

 All local sources undergo deduplication and FRBRization for clarity.

```
rule "Copy creator etc."
when
true
then
copy "//*[local-name()='creator']/." to "dc"."creator"
copy "//* [local-name() = 'title']/." to "dc". "title"
copy "//*[local-name()='publisher']/." to "dc"."publisher"
copy "//*[local-name()='subject']/." to "dc". "subject"
copy "//* [local-name() = 'language']/." to "dc"."language"
end
rule "Copy date"
when
exist "//*[local-name()='date'][not(contains(text(),'1000'))
and not (contains (text(), 'in press')) and
not(contains(text(), '9999')) and
not(contains(text(), 'undated')) and
not(contains(text(),'0001'))]"
then
copy "substring(//*[local-name()='date']/text(),1,4)" to "dc".
"date"
end
rule "Copy date in press"
```



Primo VE: External Data via CDI

Central Discovery Index (CDI)

• Access to over 5 billion metadata records from thousands of providers.

ULiège Subscriptions + resources in Open Access

• Includes Springer, Elsevier, Cairn, DOAJ, JSTOR, OpenEdition, Wiley, etc.

Access Control

• Only content accessible to ULiège users is shown by default.

Merging of CDI records

• CDI records are deduplicated using identifiers like DOI, PMID, ISBN.

Multiple Versions

• A single article might be indexed in Scopus, PubMed, and WoS – Primo merges them.



Collection Discovery: Purpose & Objectives

Highlight Heritage

• Showcase rare books, manuscripts, archives, and digitized student theses.

Avoid New Systems

• Use Alma/Primo VE's native features without adding separate interfaces.

Increase Visibility

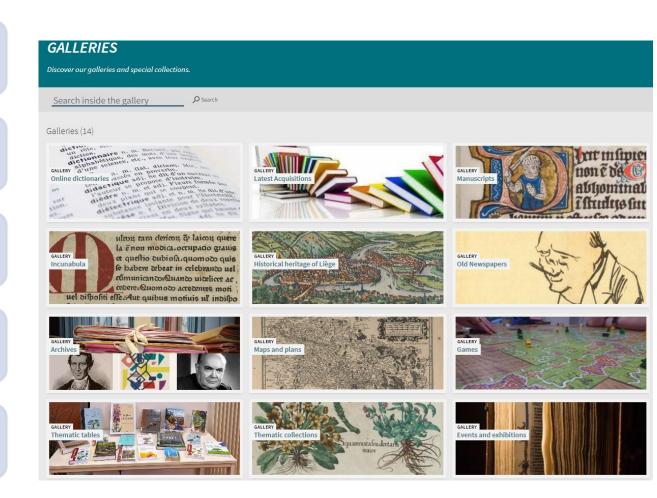
 Make patrimonial and thematic collections more visible to users.

Support Exhibits

• Enable virtual exhibits and curated thematic entry points for users.

Align with Catalogue

 Ensure that digital/specific collections are indexed and discoverable alongside print holdings and electronic materials.





Collection Discovery: Technical Setup

Alma Collections

• Used to group records and trigger visibility in Primo VE interface.

Digital Representations

• External objects (e.g. DONum) added as remote representations in Alma.

Thematic Entry Points

• Top-level themes include Manuscripts, Archives, Incunabula, etc.

No Auto-Matching

• Manual associations required due to metadata discrepancies between systems.

Indexing Challenges

Some issues with deduplication and FRBR due to format differences.



Collection Discovery: Benefits & Challenges

User-Friendly Access

• Facilitates user exploration without needing advanced search skills.

Simple Setup

• Utilizes existing Alma features; no new system administration required.

Manual Workload

• Requires manual linking and metadata verification.

No Full Interoperability

• No automatic FRBR matching between Alma and harvested records.

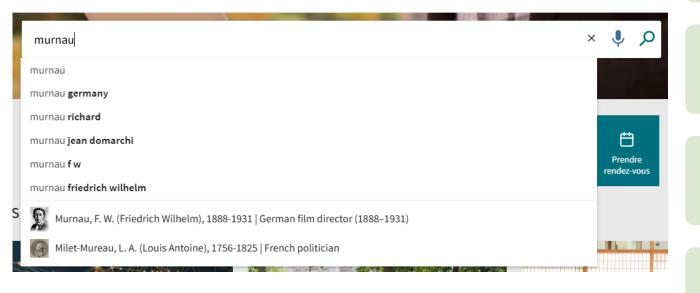
Potential Extensions

 Future improvements could include better metadata alignment or UI customization (planned in Primo NDE)



Linked Data in Primo VE

(Ongoing at ULiège)





Linked Data Support

Supports Person Entity linking via LCNAF and IdRef authority records.



Autocomplete & Info Cards

Entity-based search enhancements available via UI components.



ULiège Testing

Tested configurations for the heritage collection view (Legito); mixed results with contributor page behaviour.



Search Examples

Enables disambiguation between homonyms and connects with authority URIs.



Challenge

Limited to entities with matching metadata in Alma; no local rebounding links in many cases.





DISSERTATION

F. W. Murnau: "Le dernier des hommes"

Painblanc, Marie-Thérèse, auteur ; Université de Liège ; Université de Liège, organisme de soutenance 1981

Ø Available Online →

Top

View It

Send to

Details

Tags

Links

View It

TÉLÉCHARGER / DOWNLOAD

- POUR DES RAISONS DE DROITS D'AUTEUR, L'ACCÈS PEUT ÉVENTUELLEMENT ÊTRE RESTREINT. ULiège Library accorde beaucoup d'importance au respect du droit d'auteur. Si vous êtes un ayant-droit de cette œuvre numérisée et estimez que son accessibilité contrevient à vos droits ou, au contraire, si vous souhaitez que l'accès à cette œuvre soit élargi, vous pouvez vous adresser à Library-Systems@lists.uliege.be
- Texte

Send to

























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Details

Title F. W. Murnau: "Le dernier des hommes"

By Marie-Thérèse Painblanc.

Author Painblanc, Marie-Thérèse, auteur >

Université de Liège >

Contributor Université de Liège, organisme de soutenance >

Creation Date 1981

Related Persons



Murnau, F. W. (Friedrich Wilhelm), 1888-1931

German film director (1888-1931)

Born 1888-12-28, Bielefeld

(Germany)

Died 1931-03-11, Santa Barbara

(Calif.)

Field Of Work Motion pictures--Production

and direction

Occupation Motion picture director,

Motion picture producers and

directors

Source Library of Congress Name

Authority and Wikidata

Show less ^



Introducing Al-Powered Discovery



Primo Research Assistant: Overview

Activated at ULiège in June 2025

Al-Powered Discovery

• Uses OpenAI GPT (currently GPT-40 mini) to process research questions in natural language.

Integrated in Primo VE

 Accessible via widget or main menu in the UI; enabled at the view level.

Multilingual Support

• Answers are returned in the language of the question when possible.

Available to All

• Enabled by default since September 2024 for all Primo VE customers.

No Personal Data

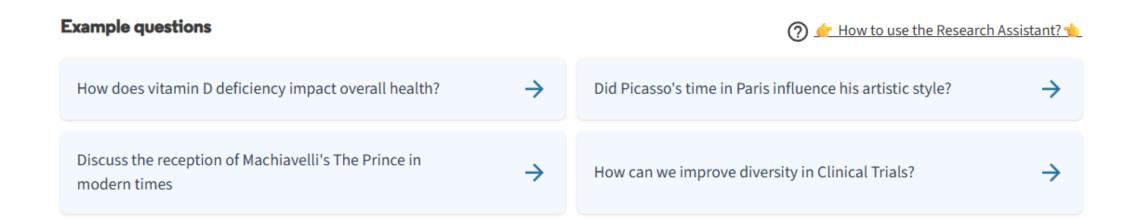
• Fully anonymized; no personal data is transmitted to Clarivate.



Research Assistant

Ask research questions. Explore relevant research. Discover new connections.





https://explore.lib.uliege.be/discovery/researchAssistant?vid=32ULG_INST:ULIEGE



Primo Research Assistant: Architecture

Natural Language Input

• User asks a question in natural language.

Boolean Translation

• LLM transforms it into multiple Boolean queries in various languages.

Query to CDI

• CDI returns up to 30 top results based on metadata and abstracts.

Semantic Ranking

• Results are re-ranked using vector-based similarity (embeddings).

Generated Answer

• Top 5 results used to produce a structured answer with inline citations.

What were the main causes of the decline of the Austro-Hungarian Empire?

Sources



Was the Austro-Hungarian Monarchy One of the True Great Powers?

Nagy, Mihály Miklós et al. 2013



CZECH POLITICS AND DECAY OF THE AUSTRO-HUNGARY (1917-1918)

Desyatnychuk, Ihor 2021



International origins of Austria-Hungary Medved, Mladen 2023



Austro-Hungarian War Aims in the Balkans during World War I

Fried, M 2014



Postwar Continuity and New Challenges in Central Europe, 1918-1923

Pudlocki, Tomasz et al. 2021



Overview of sources

The decline of the Austro-Hungarian Empire can be attributed to a combination of internal and external factors that culminated during the final stages of World War I. One significant aspect was the rise of nationalist movements within the empire, particularly the Czech national movement, which gained momentum as anti-war and anti-Austrian sentiments grew among the population. This shift in public opinion weakened the traditional political structures and the monarchy's role as an arbiter in interethnic relations, leading to increased political radicalism and fragmentation within the empire.

Additionally, the empire faced challenges related to its geopolitical positioning and the pressures of modernization. The article discussing the international origins of Austria-Hungary highlights how the empire's political weaknesses, rather than mere economic backwardness, played a crucial role in its decline. The inability to establish a hegemonic bloc and stabilize its political landscape contributed to its vulnerability against external pressures, particularly from the industrializing powers of Europe.

The Austro-Hungarian leadership's aggressive war aims in the Balkans during World War I also reflected a desperate attempt to maintain its status as a great power. However, these ambitions ultimately exacerbated the empire's internal divisions and led to significant losses, both militarily and in terms of public support. The combination of these factors, including the impact of foreign policy changes and the aspirations for self-determination among various ethnic groups, created an environment ripe for the empire's dissolution.

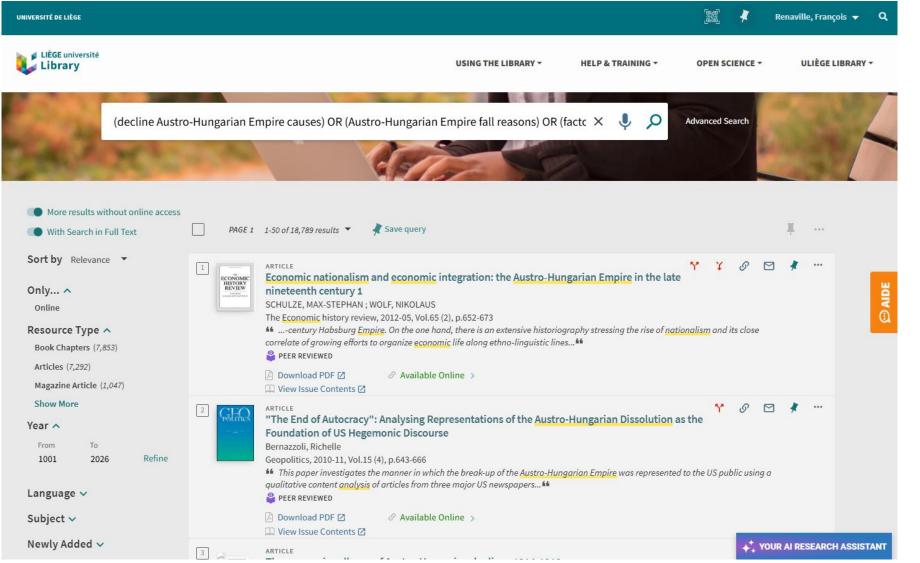
In conclusion, the decline of the Austro-Hungarian Empire was driven by a complex interplay of nationalist movements, political fragmentation, geopolitical challenges, and the consequences of its wartime strategies, all of which contributed to its eventual collapse in 1918.



Related research questions

- ? What were the economic factors contributing to the decline of the Austro-Hungarian Empire?
- ? How did nationalism impact the stability of the Austro-Hungarian Empire?

- ? What role did World War I play in the dissolution of the Austro-Hungarian Empire?
- ?



(decline Austro-Hungarian Empire causes) **OR** (Austro-Hungarian Empire fall reasons) **OR** (factors leading to Austro-Hungarian decline) **OR** (Austro-Hungarian Empire disintegration analysis) **OR** (political economic social causes Austro-Hungarian decline) **OR** (factors leading to the fall of the Austro-Hungarian Empire) **OR** (reasons for the decline of the Austro-Hungarian monarchy) **OR** (historical causes of the dissolution of the Austro-Hungarian Empire) **OR** (impact of nationalism on the Austro-Hungarian Empire's decline) **OR** (economic and political challenges faced by the Austro-Hungarian Empire before its collapse) **OR** (What were the main causes of the decline of the Austro-Hungarian Empire?)



What Users Receive from Primo RA

Mhat were the main causes of the decline of the Austro-Hungarian Empire?



ARTICLE

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Nagy, Mihály Miklós et al. 2013 Desyatnychuk, Ihor 2021

2 ARTICLE

CZECH POLITICS AND DECAY OF THE AUSTRO-HUNGARY (1917-1918)

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Related research questions

What were the economic factors contributing to the decline of the Austro-Hungarian Empire?

How did nationalism impact the stability of the Austro-Hungarian Empire?

What role did World War I play in the dissolution of the Austro-Hungarian Empire?

What were the political challenges faced by the Austro-Hungarian Empire in the early 20th century?

Structured Answer

 Summarizes insights from 5 selected CDI sources with references.

Follow-up Questions

• Suggests related questions to refine or expand the search.

Direct Links

 Each source is linked to its full record in Primo VE.

Evaluation Features

 Users can rate the relevance and accuracy of the answers.

Non-Chatbot Interaction

• Primo RA is a single-turn interaction not a conversational agent.



Primo RA: Use Cases in Information Literacy

Intro to Topics

• Helpful for unfamiliar or broad topics with no prior knowledge.

Refining Research

• Supports question formulation and advanced Boolean logic.

Multilingual Research

• Useful for students working in non-native languages.

Workshop Integration

• Should be integrated into ULiège's information literacy workshops.

Critical Use Encouraged

• Students are advised to evaluate Primo RA outputs critically.



Primo RA: Key Limitations

No Local Data

• Currently excludes ULiège's Alma, ORBi, DONum, MatheO content.

Source Bias

• Excludes content from Elsevier, JSTOR, APA, DataCite, etc.

Abstract-Only

• Answers are based on abstracts, not full texts.

Coverage Gaps

• Results depend heavily on CDI's indexed metadata.

Reproducibility Issues

• Same query may produce different answers at different times.



Primo RA: Challenges and Perspectives

Local Data Integration

• Maybe in 2026, enabling queries over Alma and harvested content.

Transparency

• Improving citation traceability and control over sources

Environmental impact (sustainability)

Critical Literacy

• Ensuring students understand AI limits and validate responses.

Are documentary search trainers convinced?

Multilingual Quality

• Maintaining answer quality across multiple languages.

Alignment with Pedagogy

- Supporting responsible use aligned with institutional policies.
- <u>ULiège Charter for the use of generative artificial intelligence in</u> academic work



Looking Ahead: Primo NDE



Primo NDE: What Is It?

Next Discovery Experience

 Major redesign of Primo VE interface focused on UX, accessibility, and modern architecture.

Community Co-Design

 Built with feedback from institutions like Harvard, Basel, York, Haifa, SLSP, etc.

New Angular Framework

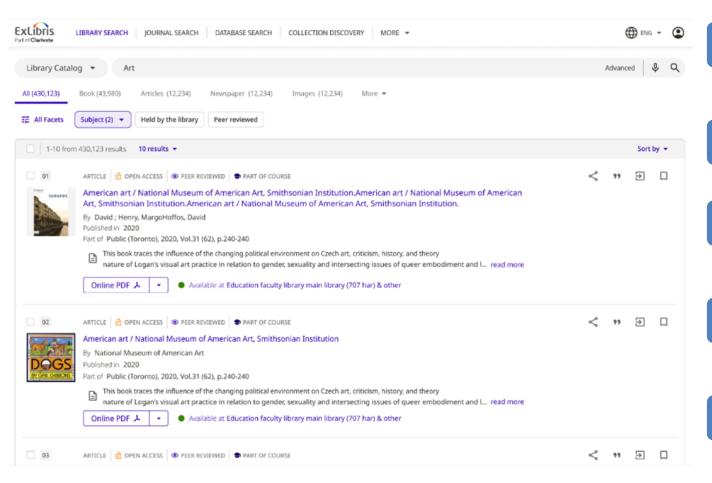
 Upgrades frontend technology for performance and flexibility.

Accessibility by Design

 Built in compliance with WCAG 2.2 (AA).



NDE: Key UI Improvements



Simplified Layout

• Clean design with fewer visual distractions and streamlined interactions.

Search Box Always Visible

• Persistent top-bar search improves usability.

Facets at the Top

 Quick filters for fast narrowing of results; facets collapsed by default.

Action Menus

• Grouped record actions (e.g., export, cite, save) for better navigation.

Enhanced User Area

 Unified dashboard for loans, favourites, saved searches and settings.



NDE: Record & Collection Enhancements

Full Record Display

 Sections are configurable: open/collapsed by default based on user needs.

Dedicated Request Section

• Streamlined workflows for hold requests and digitization.

Embedded Viewers

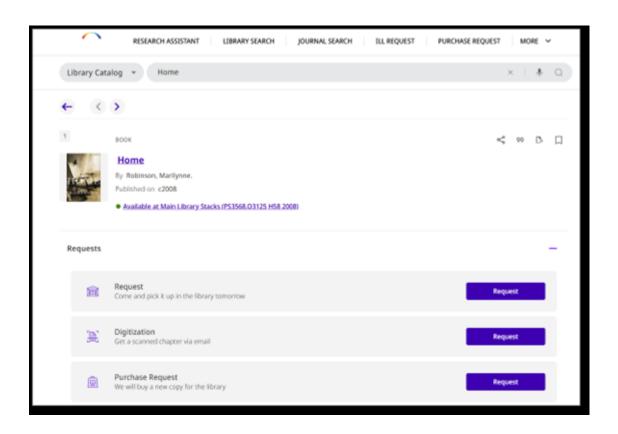
• Digital content can be viewed directly from the record page.

Improved Collection Discovery

• Facets, list view, and better navigation of curated collections.

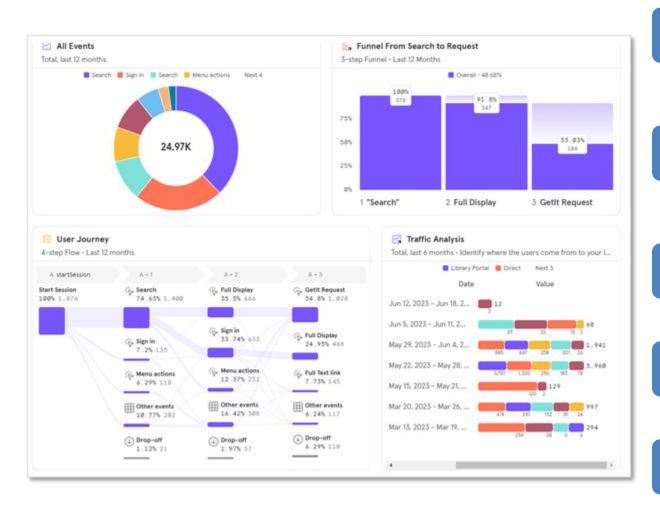
Support for Virtual Exhibits

- Improved experience for showcasing thematic content.
- Specto?





NDE: User Engagement Analytics



Goodbye to Old Reports

• Replaces legacy analytics with Mixpanel, a robust analytics platform.

User Behavior Insights

• Track feature usage, engagement patterns, click-throughs, etc.

Informed Decision-Making

Data helps refine UI/UX and training materials.

Privacy Respect

Complies with privacy rules; no personal identifiers.

Useful for Rollout Monitoring

• Evaluate impact of NDE changes during and after launch.



NDE: Possible Transition Timeline



2025

May 2025: Managed General Release for early adopters.



2026

Spring 2026: ULiège starts testing and customization in sandbox views.



2026

September 2026:

- ULiège goes live with Primo NDE in production.
- + new website on JCMS
- + new layout for LibCal

General Release – self-switch available to all institutions.



Summer 2026: Staff training, user feedback collection, and final tuning.



2026



Strategic Outlook & Key Takeaways



Strategic Outlook: ULiège Library



Stay at the Forefront

Early adopter of innovations like PRA and NDE.



Staff Empowerment

Training and internal expertise are key to successful implementation.



Balanced Innovation

Adopt technologies that truly serve researchers and students.



Collaborative Development

Work with Clarivate | Ex Libris and peer libraries.



Ongoing Evaluation

Iteratively assess tools, usage, and user satisfaction.



Key Takeaways



Discovery Is Evolving

From OPAC to local Primo, to VE, to NDE and Al assistance.



Primo Research Assistant Adds Value

Enables students to ask, explore, and learn with Al support.



Primo NDE Modernizes Access

New UI designed for accessibility, clarity, and engagement.



Linked Data Still Emerging

ULiège is exploring its potential in authority control and discovery.



Staff & Users Are Central

Tools must empower people, not replace their expertise.



