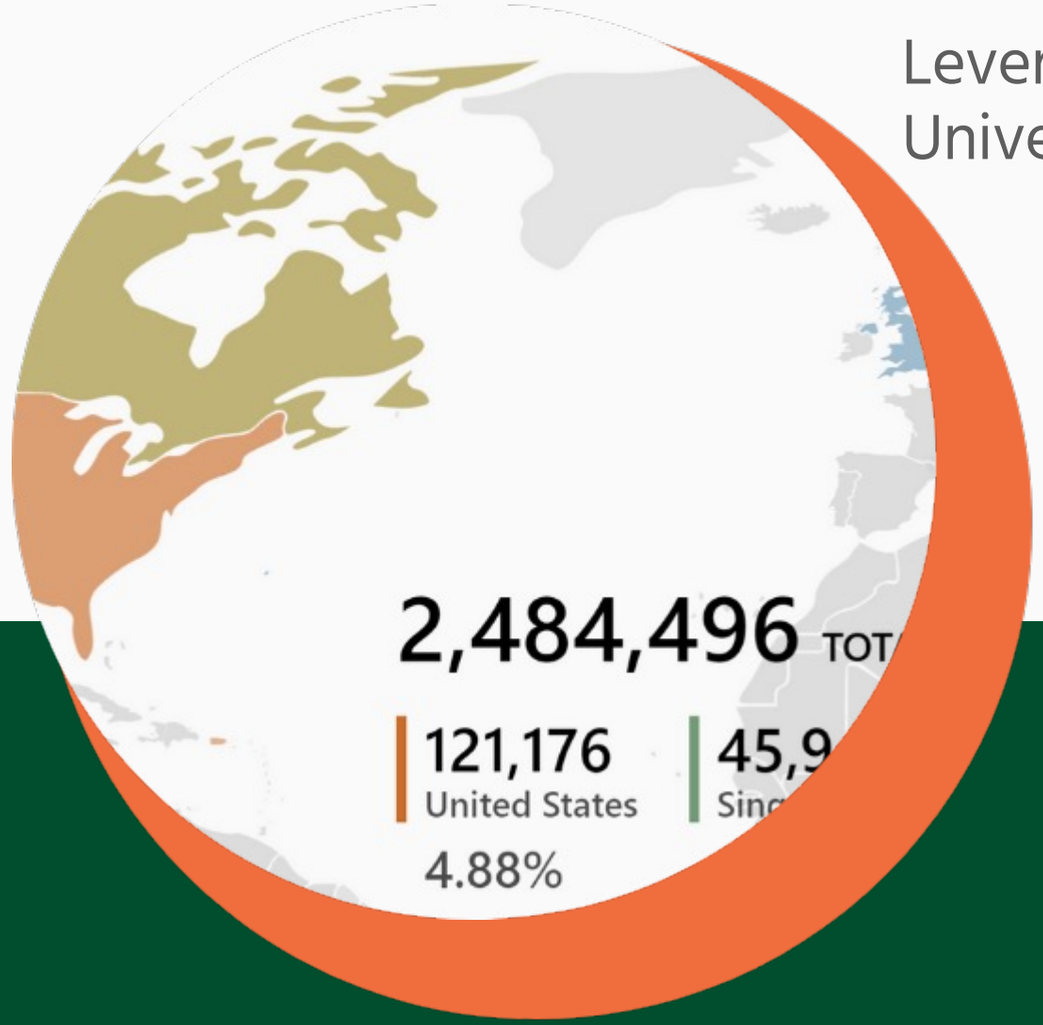
From Scratch to Launch

March 2023

Leveraging UM Libraries' RIM System to Cultivate University-wide Partnerships & Support Faculty Research



Kineret Ben-Knaan, Angela Clark-Hughes & Elizabeth Gushee

IATUL 2023

MIAMI LIBRARIES | Transforming lives OPENING WORLDS

University of Miami | Fast Facts

MIAMI LIBRARIES

$375M
FY21 Research Expenditures

3.4K
Faculty, including 73 librarians

12K Undergrads

7K Graduates

4 Campuses

12 Schools & Colleges

- Source of Truth
- Source for Discovery
- Source for Expertise
- Reduction of Tools

MIAMI LIBRARIES

UM Research Information Landscape | 2017-18

Scholarship@Miami Timeline (2017-2022)

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2017
Campus stakeholders convene for research services platform

2017
Early development partnership with Ex Libris - Esploro

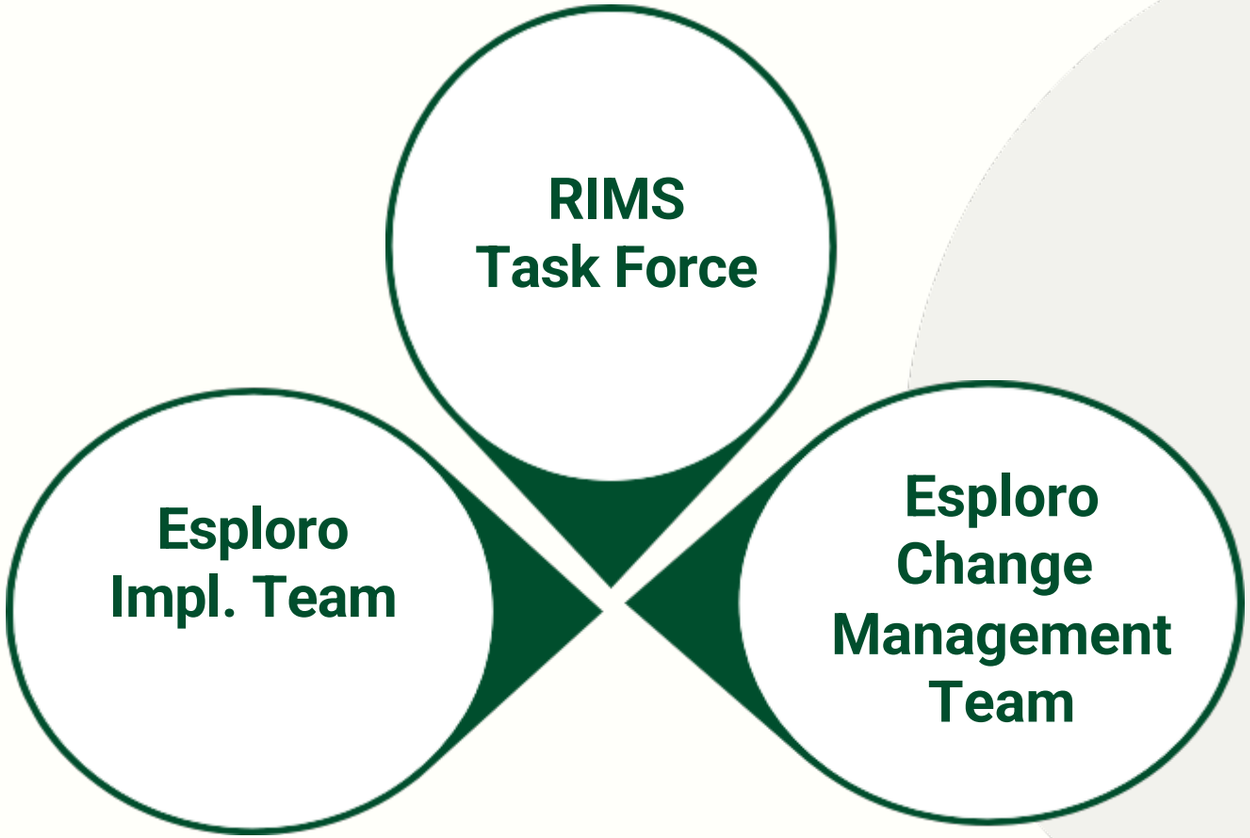
2018
Esploro adoption / UM Leadership meetings ongoing

2019
Campus RIMS group / Libraries Esploro team established

2020
Scholarship@Miami institutional repository goes live

2020-22
Pandemic, Leadership Shifts, Cont. Esploro Researcher Pilots

2022
Launch Pending: Scholarship@Miami Researcher Profiles



Research Information Management Systems Task Force (2019-)

- Assess UM RIMS Environment
- Make recommendations about current needs & investments
- Create long-terms RIMS strategy (systems, people, $$$)

Esploro Implementation Working Group (2019-)

- Inform Esploro development
- Migrate from legacy system
- Launch Repository
- Populate & Launch Researcher Profiles (Utilizing AI)

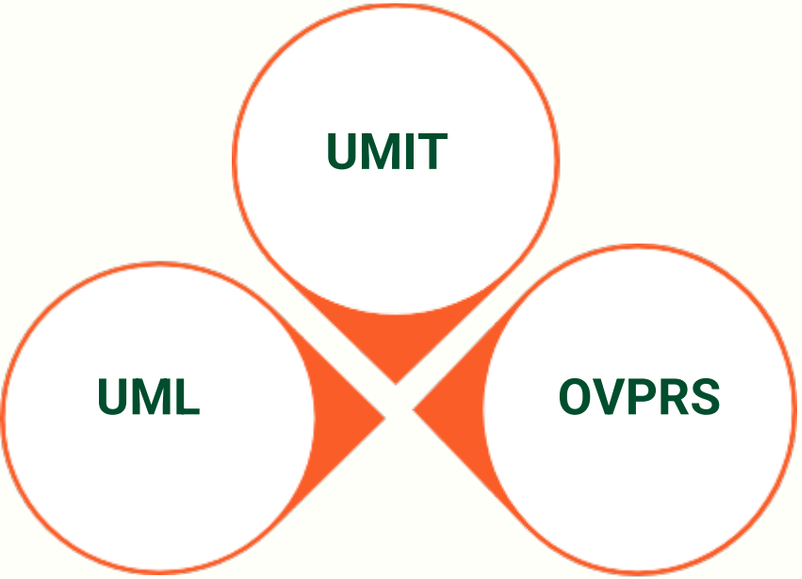
Esploro Change Management Working Group (2021-)

- Prepare University for shift to single platform
- Pilots for Researcher Profiles

Strategic Groups | Strategic Relationships - Miami

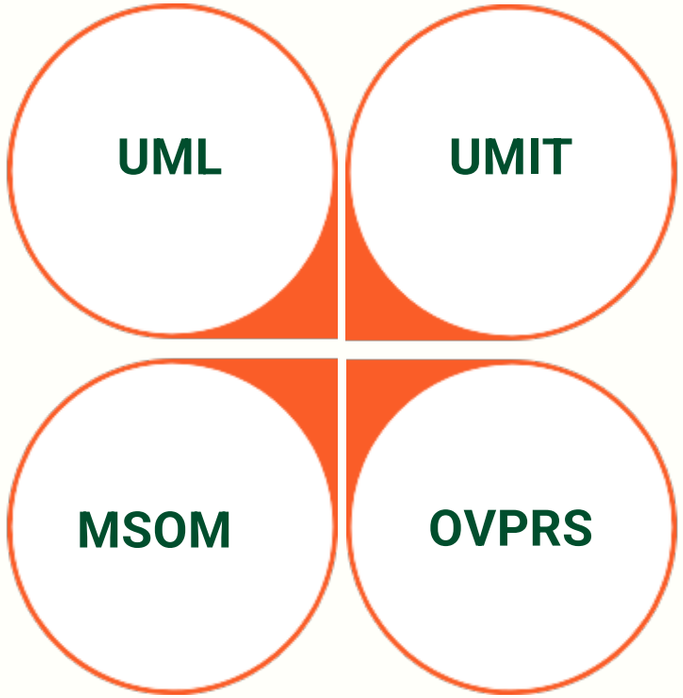
Strategic Relationships | Shifting Partnerships

- 2019 New CIO
- 2020 New Vice Provost for Research & Scholarship
- 2022 New CIO



- 2022 Miller School of Medicine (MSOM) Faculty Directory

- Esploro / Faculty Directory
- Franken-Project



Leading from Behind — The Future is Bright

STEPS FOR RECOVERY

- Team airing of grievances
- Collectively, identify next step and wins
- Supportive dean who sees the future

CURRENT REALITY

- Library removed from front- line politics & pressure
- Research output = invaluable institutional asset
- Fulfilling unmet data needs
- Broadening expertise

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Implementing Esploro at UM

MIGRATE FROM LEGACY SYSTEMS

bepress (institutional repository) & Elsevier Pure (RIMS/CRIS)

HR SYSTEM INTEGRATION

Streaming information about UM researchers from the University HR system

CITATION DATABASES & ANALYTICS

Utilizing Esploro Analytics, Ex Libris's CDI and APIs connections to multiple citation databases to identify UM researchers' outputs.

AUTHOR MATCHING ALGORITHM MECHANISMS

Leverage Esploro's Artificial intelligence and Machine Learning features to train the system to automatically capture and fetch relevant scholarly outputs produced by researchers affiliated with UM.

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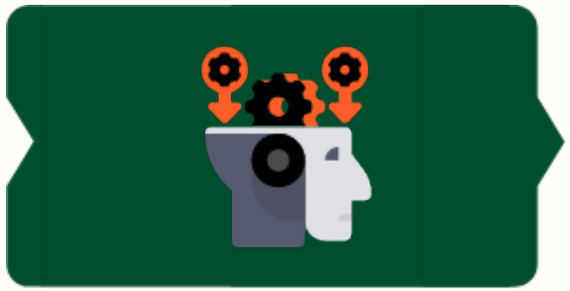
Esploro's Machine Learning Algorithm

HOW ESPLORO AI WORKS?

Esploro's Author Matching Algorithm learns how to match scholars to their research outputs by considering various identifying data points from the researcher's record and their previously known assets, against records covered in Ex Libris's CDI.

WHAT PROBLEM IS AI TRYING TO SOLVE?

Esploro's Author Matching Algorithm learns how to match scholars to their research outputs by considering various identifying data points from the researcher's record and their previously known assets, against records covered in Ex Libris's CDI.



WHAT AI ALGORITHMS CAN'T DO?

AI can't be self-taught from scratch. It requires humans in the loop and lots of trained data.

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CITATION DATABASES

Microsoft Academic; The Lens; Scopus; Dimensions; Academic Analytics; Pivot; Web of Science; ORCiD data

DATA TOOLS & ANALYTICS

Microsoft Power Bi & Power Query have been used to march between UM internal researcher ids and external ids recorded in the above citation databases

ESPLORO'S AUTHOR MATCHING AI FEATURES

- Smart Expansion via CDI
- Controlled smart harvesting
- Analytics reports and dashboards

Data Curation to train Esploro's AI

Pivot from Researcher Profiling to Metadata Reuse

Source of Truth | accurate, trustworthy, and sufficiently complete

Data curation | well-curated, granular, usable

Integration | Accessible, sharable, and automated data flow

Functionality | support an array of business needs & satisfy diverse purposes

Bryant, Rebecca, Jan Fransen, Pablo de Castro. Brenna Helmstutler, and David Scherer. 2021. *Research Information Management in the United States: Part 1—Findings and Recommendations*. Dublin, OH: OCLC Research. https://doi.org/10.25333/8hgy-s428

Functionality

Support an array of business needs & satisfy diverse purposes.

- **Scholarship@Miami's** (Esploro) **corpus of curated research data supports several university initiatives**: metadata on publications, managed by the Library, is integrated with several university discovery portals.

- **Solving challenges:** metadata on **grants** awarded by external funding agencies and linked to UM principal investigators are now collected via **Scholarship@Miami** and shared with several university discovery portals.

- **Customize reports** are shared regularly with external university entities. This includes productivity reports, publications analysis reports by discipline, research topics, or type of publication (example: Open Access Publications at UM).

- **Decision support via publications and grants analysis**: Internally, librarians have utilized and analyzed Scholarship@Miami's data to support decision-making related to transformative and open-access agreements offered by publishers.

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From Implementation to Management

MIGRATE FROM LEGACY SYSTEMS

HR SYSTEM INTEGRATION

CITATION DATABASES & ANALYTICS

AUTHOR MATCHING ALGORITHM MECHANISMS

MAINTENANCE & WORKFLOWS

Manage day-to-day operations and development.

This includes:

- Ensuring data accuracy & completion,
- Approving "Smart Harvesting" tasks of new publications and grants and,
- Maintaining & expanding various data integrations to support external projects,
- Leading the Library RIMS Service Model vision

TRAINING THE TRAINERS

Expanding the network through a series of training the trainer events.

ESTABLISHING NEW WORKFLOWS

Consistently reviewing the harvested and expanded content for accuracy.

CONTINUED DEVELOPMENT

Exploring the impact of system changes on information seeking and sharing.

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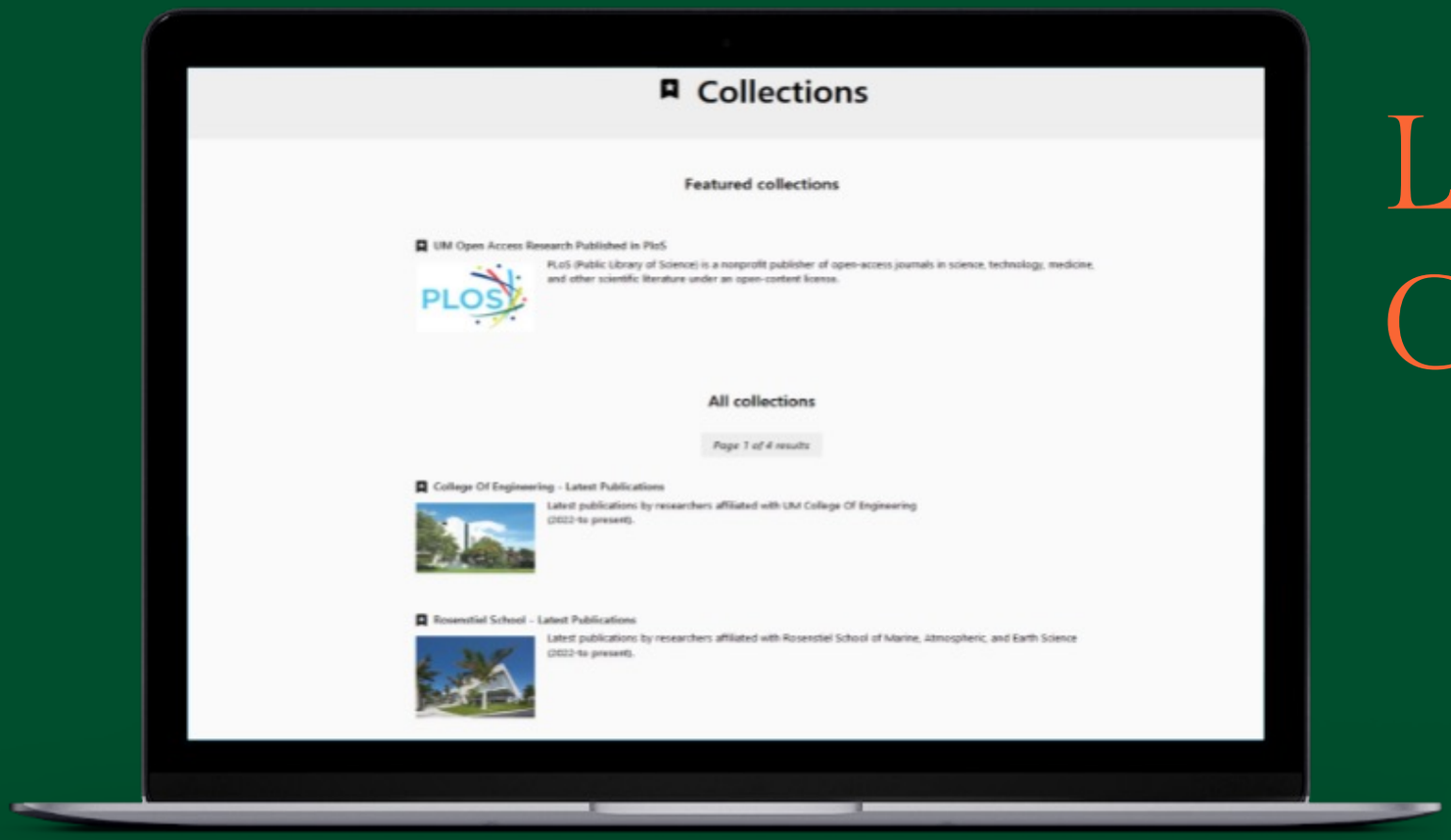

Live Research Collections

MIAMI LIBRARIES

NEW DEPARTMENT

RESEARCH ANALYTICS
& IMPACT SERVICES

COMMUNICATION &
PARTNERSHIPS

The Future

Learn More!

Gushee, E., Clark Hughes, A., Ben-Knaan, K. (2023, May). *Leveraging Esploro to Advance Campus Initiatives at University of Miami*. [Conference session]. Ex Libris Users of North America (ELUNA) 2023 Annual Meeting, Los Angeles, California., **Forthcoming**, In-person.

Kautzman, A., Gushee, E., Clemons, J., Branch, S. (2022, March). *Research Information Management: Library Roles & Opportunities* [Video]. Association of College and Research Libraries (ACRL) Choice webinar, 2022, Online. https://www.youtube.com/watch?v=AF8lEE0AiOo&t=107s

Gushee, E., Clark Hughes, A., Ben-Knaan, K. (2021, December). *University of Miami's Esploro Journey: Leveraging Human Eco-systems & Intelligence to Train AI Models* [Conference session]. Coalition for Networked Information (CNI), Fall 2021, In-person. https://www.cni.org/topics/scholarly-communication/university-of-miamis-esploro-journey-leveraging-human-eco-systems-intelligence-to-train-ai-models

Bryant, Rebecca, Jan Fransen, Pablo de Castro. Brenna Helmstutler, and David Scherer. 2021. *Research Information Management in the United States: Part 2—Case Studies*. Dublin, OH: OCLC Research. https://doi.org/10.25333/qv1f-9e57.

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Questions?

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Thank you!