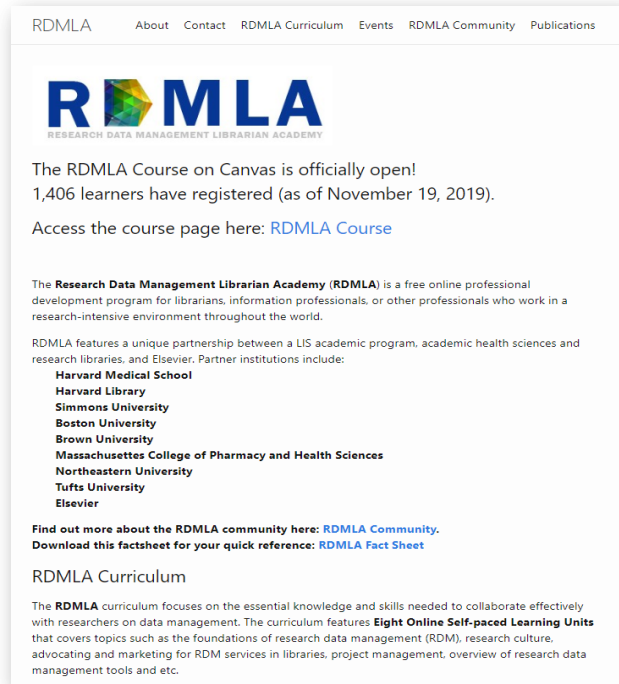# Research Data Management
LIBRARIAN ACADEMY

Elaine Martin, Rong Tang, and Jean P. Shipman
2019 Research Data Management Symposium
December 5, 2019

Agenda

- What is RDMLA?

- Why was RDMLA created?

- What content is available from RDMLA?

- Who can take and/or benefit from RDMLA and how does one access it?

- Who developed RDMLA?

- What future plans are there for expanding and updating RDMLA?

- Why is RDMLA valuable to research leaders? Future librarian employers?

- Success metrics to date and the future

- Questions and Answers

What is RDMLA & Why is it Unique?

- An online education program offering individuals an opportunity to learn about research data management practices.

- Developed in partnership with industry, a team of librarians and LIS faculty who have expertise with RDM.

- Filling in a gap in RDM training

- Website: **rdmla.github.io**

RDMLA Course on Canvas
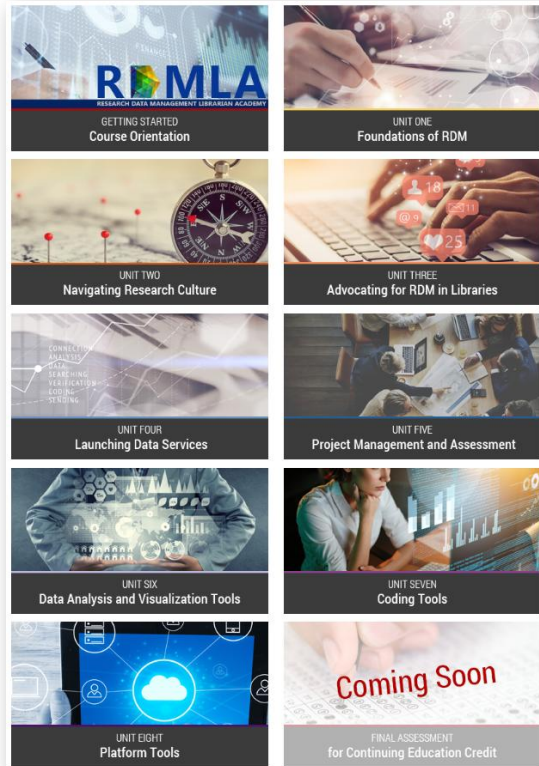
- The Academy offers **eight** units, which can be taken in sequence or out of order.

- All units are hosted online via the Canvas Network platform under **CC-BY-NC-SA** licensing.

- Website: **rdmla.github.io**

Partner Institutions

Harvard University

Harvard Medical School

Simmons University

Boston University

Tufts University

Northeastern University

Massachusetts College of Pharmacy and Health Sciences

Brown University

ELSEVIER

Elsevier
(financially supports program also)

The Role of Librarians in RDM

- **Service** Bucket

- **Best Practices for Data Management** Bucket

- **Literacy** Bucket

- **Archives/Preservation** Bucket

- **Policy** Bucket

- **Community of Librarians**

User-Centric Data Management Framework for Librarians
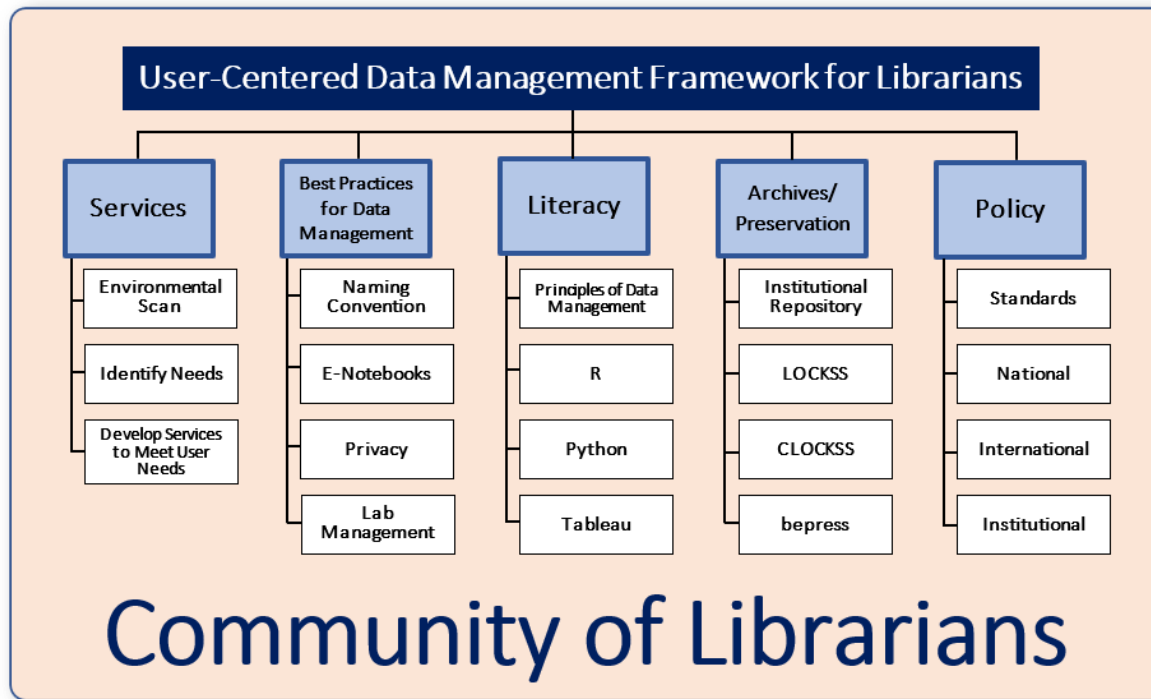
Challenges Librarians Face

Challenges Libraries Face in RDM Service Provision(N=54)

Challenge	Value
Capacity/Bandwidth; Limited Staffing	51 (80.95%)
Data Sharing & Dissemination	49 (77.78%)
Data Discovery & Access	42 (66.67%)
Data Preservation	41 (65.08%)
Metadata	41 (65.08%)
Data Organization & Curation	37 (58.73%)
Data Visualization	37 (58.73%)
Protocol Documentation	20 (31.75%)
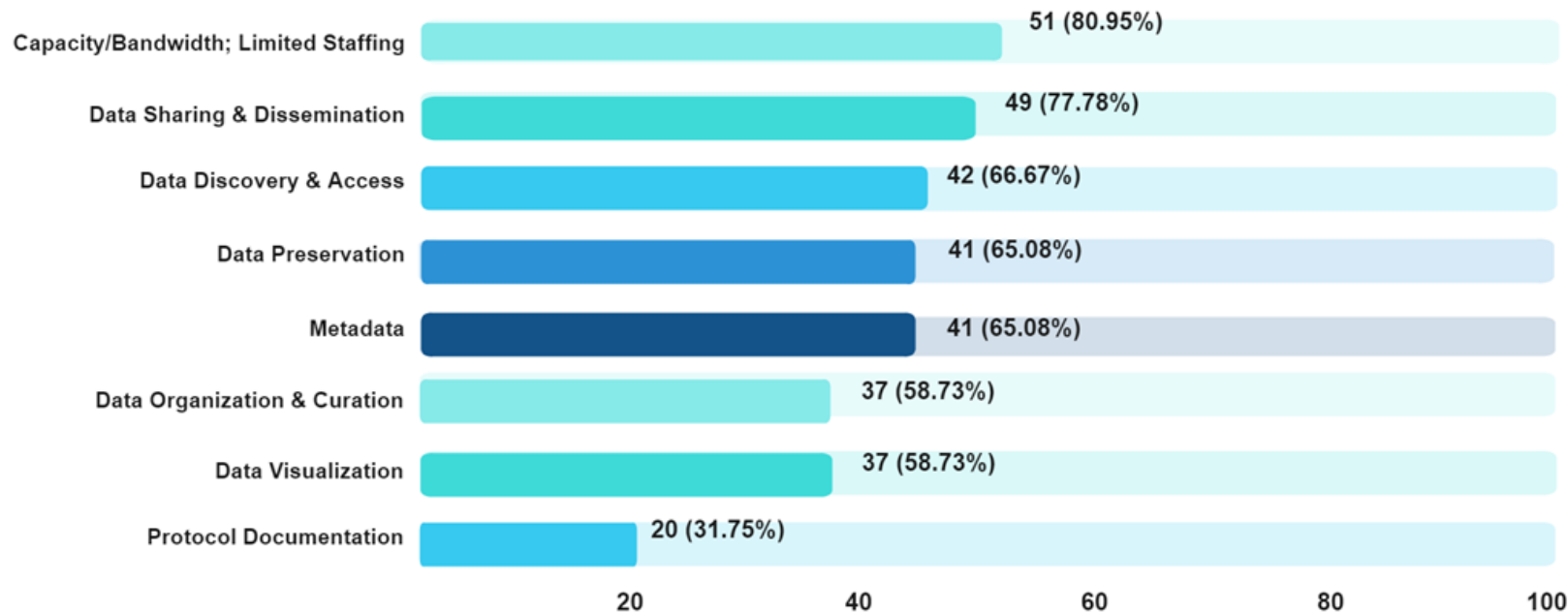
Strategies to Address the Challenges

- RDMLA

- Collaboration with IT, Office of Research, and other stakeholders.

- Library directors need to advocate for funding for their RDM services.

- Partner with other libraries and share experiences to build a community of RDM.

Why Was RDMLA Created?

- Researchers can benefit from a team member who can organize and describe data effectively.

- Librarians can transfer content organizational and descriptive talents to data along the different phases of the research lifecycle.

- Librarians currently have a continuum of skill levels with research data management (RDM); RDMLA was created for the practicing librarian to enhance their skill sets so they can be part of research teams.

- RDMLA can also be applied by researchers wishing to learn more about RDM foundations and related software and tools.

Who Developed RDMLA?

Leadership

Elaine Martin (Harvard)

Rong Tang (Simmons)

Jean P. Shipman
(Elsevier)

Faculty

See Next Slide

Project Staff

Zhan Hu (Simmons)

Irena Fayngold, Ellen Berrigan, Madhu Narayan (Simmons)

Ashley Thomas (Simmons, Harvard)

Simmons SLIS & Simmons Online

Sanda Erdelez (SLIS Director, Simmons SLIS)

Kristen Palson, Courtney Bohr, Madhu Narayan
(Simmons Online)

RDMA Faculty

Unit 1 Elaine Martin (Harvard), Julie Goldman (Harvard), Danielle Pollock (Simmons), Philip Coombs (BU)

Unit 2 Andrew Creamer (Brown)

Unit 3 Ceilyn Boyd (Harvard); Elaine Martin (Harvard), Mary Blanchard (BU), Eric Albright (Tufts), Richard Kaplan (MCPHS)

Unit 4 Jen Ferguson (Northeastern), Rebecca Morin (Tufts)

Unit 5 Rachel Lewellen (Harvard), Alison Thornton (Harvard), Danielle Adams (Harvard)

Unit 6 Berika Williams (Tufts)

Unit 7 Scott Lapinski (Harvard), Roger Vargas (Harvard)

Unit 8 Jean P. Shipman (Elsevier), Julie Goldman (Harvard), Scott Lapinski (Harvard)

What Content Is Available In RDMLA?

Unit 1: **Foundations of Research Data Management (RDM)**

Unit 2: **Navigating Research Data Culture**

Unit 3: **Advocating and Marketing the Value of RDM in Libraries**

Unit 4: **Launching Data Services in Libraries**

Unit 5: **Project Management and Assessment**

Unit 6: **Overview of Data Analysis and Visualization Tools**

Unit 7: **Overview of Coding Tools**

Unit 8: **Overview of Platform Tools (eg. Mendeley Data, OSF, NIH)**

The Match

User-Centered Data Management Framework for Librarians

Services	Best Practices for Data Management	Literacy	Archives/ Preservation	Policy
Environmental Scan	Naming Convention	Principles of Data Management	Institutional Repository	Standards
Identify Needs	E-Notebooks	R	LOCKSS	National
Develop Services to Meet User Needs	Privacy	Python	CLOCKSS	International
	Lab Management	Tableau	bepress	Institutional

Community of Librarians

UNIT ONE
Foundations of RDM

UNIT TWO
Navigating Research Culture

UNIT THREE
Advocating for RDM in Libraries

UNIT FOUR
Launching Data Services

UNIT FIVE
Project Management and Assessment

UNIT SIX
Data Analysis and Visualization Tools

UNIT SEVEN
Coding Tools

UNIT EIGHT
Platform Tools

Community of Librarians

User Centered Data Management Framework for Librarians

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Develop Services to Meet User Needs	Privacy	Python	CLOCKSS	International
	Lab Management	Tableau	bepress	Institutional

Welcome Page

Course Orientation

Instructors

Ceilyn Boyd

Elaine Martin

Mary Blanchard

Eric Albright

Richard Kaplan

Unit Objectives

- Describe common institutional RDM stakeholders, including advocates and potential partners.

- Describe common institutional and organizational barriers to implementing RDM services in the library.

- Compare common successful and unsuccessful strategies for advocating for RDM services.

17

Instructors

Jen Ferguson

Rebecca Morin

Unit Objectives

- Evaluate how their institution might fit with various data service approaches and models.

- Describe the stakeholders and groups to consider when launching and managing data services in libraries.

- Design an action plan to establish data services in their institution.

18

RDMLA Target Learner Population

- Who can take and/or benefit from the RDMLA?

  ○ Library and Information Professionals

  ○ Professionals who work in research intensive environments

- How does one access?
  ○ Go to **rdmla.github.io**

Timeline

PHASE 1
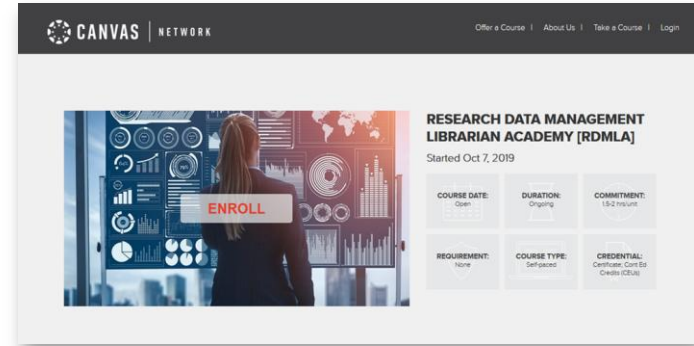
Summer-Fall 2018

- A needs assessment survey
- A LIS educator short survey
- A competency scan
- An inventory of training and formal RDM curricula

PHASE 2

Spring-Summer 2019

- Course unit design and development
- Video recording, implementation of exercises and interactive learn objectives
- Establish Simmons CE system

PHASE 3

Fall 2019+

- QA tests
- Usability and UX tests
- Formal launch of RDMLA on October 7, 2019
- Simmons SLIS CE credit issuance (start January 2020)

Future Plans

- Complete usability testing sessions and quick fixes recommendations

- Establish Simmons CE Program (to be available January 2020)

- Add new units to RDMLA

  - Data Ethics

  - Data Copyright

  - Data Curation and Archiving

- Explore international partnerships for translations for multilingual versions of RDMLA

- Use learning analytics to improve and enhance RDMLA

Why is RDMLA Valuable?

- **For Research Leaders:**

  - Understand the role of librarians in supporting RDM planning, and execution for their grants/projects (Unit 2: Roles of the Research Team).

  - Involve librarians in data curation, archiving, and reuse.

- **For Librarians:**

  - An extremely valuable resource for current library workforce to tool or retool on RDM practices and projects.

- **For LIS Educators:**

  - A valuable source for teaching RDM courses in LIS schools or programs.

Feedback

P060 from Usability Testing

Lecturer on Information Sciences, University of Pretoria, South Africa

"I would like to commend you (and the others involved) on a really excellent and much needed course on RDM. I felt that it was well organized, and a good blend of different types of materials (e.g. video, text, exercises). I am looking forward to doing the rest of the modules."

From Email Exchange

Associate Professor, School of Library and Information Studies, University of Alberta, Canada

"I wanted to thank you so much for your work on this project and making it available as an open education resource. I am going to enroll immediately. I also teach the Introduction to Research in LIS course and the Seminar in Advanced Research and will definitely either encourage students to use this resource, build a small assignment using it, or both. This is wonderful."

Success Metrics to Date

October 7, 2019 to December 4, 2019

- Active Students: 1,564

- Discussion Forum Posts: 485

- Badges Awarded: 770

- Course Completion Badges: 43

Where In the World Are RDMLA Students?

Numbers based off of 1427 student IP addresses

Europe: 18%
- 257 students
- 33 countries

North America: 43%
- 619 students
- 7 countries

Asia: 15%
- 208 students
- 25 countries

Central America: .5%
- 5 students
- 4 countries

South America: 5%
- 78 students
- 8 countries

Africa: 8%
- 112 students
- 21 countries

Middle East: 4%
- 64 students
- 11 countries

Oceania: 6%
- 84 students
- 4 countries
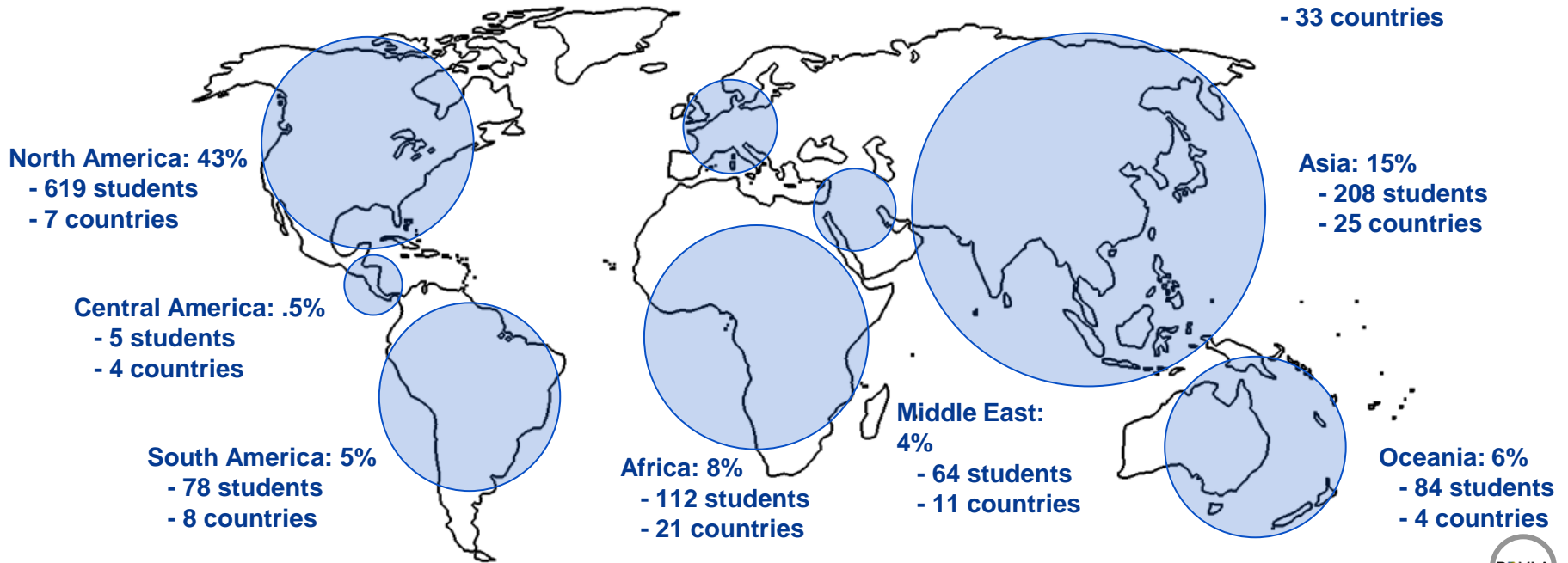
RDMLA

RDMLA
RESEARCH DATA MANAGEMENT LIBRARIAN ACADEMY

Comments by Usability Participants

Positive Reactions to RDMLA

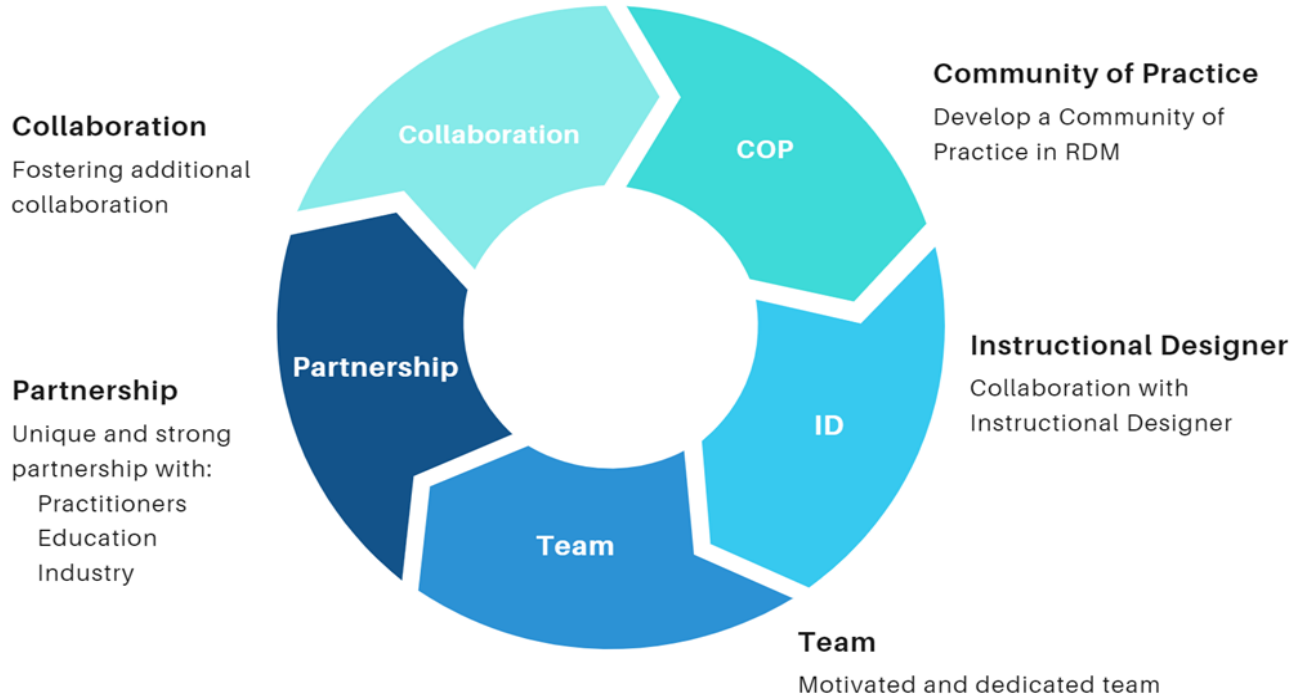- P027: "I saw Tufts and Harvard and Simmons, Boston University, of course, Elsevier … There were several very prestigious organizations involved. It makes me feel like this is a really nice joint effort."

- P031: "It's self paced … I like the course objectives, I like that it's on there because now I'm getting more of like, alright this is what we're going to be talking about."

Usability Comments

- P001: "It looks very nice and very simple. I like the layout of the individual units … It's very clearly laid out."

- P004: "The quiz automatic grading does not provide explanation for why certain option selected is wrong."

- P031: "I will say, now that I'm here [Unit Overview page], I wish there was some kind of overarching hierarchy tree, on the side of the page. You know if I were coming back … I know on the front page you can like skip around.

RDMLA Development: Recipe for Success

Collaboration
Fostering additional collaboration

Partnership
Unique and strong partnership with:
Practitioners
Education
Industry

Community of Practice
Develop a Community of Practice in RDM

Instructional Designer
Collaboration with Instructional Designer

Team
Motivated and dedicated team

Collaboration
COP
Partnership
ID
Team

27

Monthly Meeting
April 2019

Check out the Course: **rdmla.github.io**

Spread the word!

RDMLA
RESEARCH DATA MANAGEMENT LIBRARIAN ACADEMY

Questions?