BD Hubs: Midwest: "SEEDCorn: Sustainable Enabling Environment for Data Collaboration"

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Data Science Ring

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- Data science is an emerging field that is motivating Big Data applications and use today.

Data science includes

- **Data lifecycle**
  - Data collection, structure, provenance management, curation and digital preservation

- **Methodologies for processing and analyzing data**
  - Workflow planning, computation, databases, modeling, visualization

- **Societal impacts of big data**
  - Privacy and security, policy, ethics, usability

Data Sciences Ring sees its contributions along several thrusts

- **1. Community development:** Organizing regular interactions and workshops among ring and spoke participants to share ideas, opportunities, challenges, and best practices in data science

- **2. Research:** Responding to specific applications or common methodological problems arising across contexts, we will serve as a partnership resource for building inter-organizational research teams to develop novel approaches in data science and pursue sponsored funding to support these investigations;

Data Sciences Ring sees its contributions along several thrusts

- **3. Expertise:** Providing access to individual/group knowledge on specific topics or services, such as the capacity to conduct audits needed for the Data Seal of Approval to a repository

- **4. Educational and workforce development:** Developing and supporting educational, internship and hiring opportunities in data science for government, industry, nonprofits and academia.

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Accelerating the Big Data Innovation Ecosystem

Data Sciences Ring sees its contributions along several thrusts

- **5. Harmonizing:** the Data Sciences Ring will work with the data providers on behalf of the MBDH collective to create agreements and recommend tooling (e.g., similar to DataONE federation protocols) that allow the data sets to be as open and available as possible to the MBDH community.

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Data science ring in relation to other rings

- The Data Sciences Ring, Tools and Services Ring, and Education and Workforce Ring all see their purpose as hub wide, and related but distinct.

- In these early days of the Hub, the Rings are working together on pilot functionality, planned educational funding opportunities, and workshop activity around Big Data, especially focused on early career engagement.

Data science activity

- Data science ring members continually strive to learn of needs and opportunities from amongst the MBDH community; opportunities that further cross spoke activity that will benefit the MBDHub as a whole.

- It seeks funding opportunities and seeks additional members who can contribute to its larger goals.