

Midwest Big Data Hub

Accelerating the Big Data Innovation Ecosystem



Ed Seidel
PI (Illinois)



Beth Plale
Co-PI (Indiana)

IOWA STATE
UNIVERSITY

Sarah Nusser
Co-PI (Iowa State)



Brian Athey
Co-PI (Michigan)



Josh Riedy
Co-PI, (UND)



Melissa Cragin
ED (Illinois)

SEEDCorn: Sustainable Enabling Environment for Data Collaboration (MBDH)

- A partnership among academia, government, industry, nonprofit entities
- Over 100 partners already
 - Colleges, Universities, Medical Centers, of all types
 - Industry, Non-profits, NGOs
 - States, cities, communities
- Ramping up outreach efforts
 - Ag and farming analytics
 - Public Health and county gov't
 - Student-led data science activities

Midwest Big Data Hub

Accelerating the Big Data Innovation Ecosystem

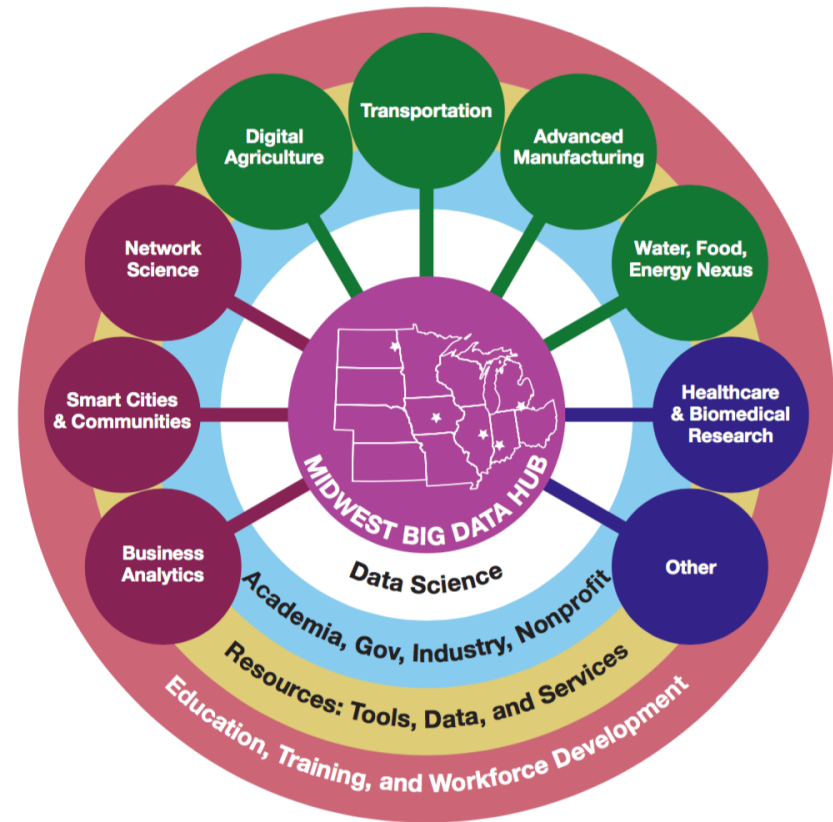


IOWA STATE
UNIVERSITY



Spokes underway at the Midwest Hub

- Network Science
- Metropolitan Science
- Business Analytics
- Digital Agriculture
- Transportation
- Advanced Manufacturing
- Food, Energy, Water
- Healthcare & Biomedical Research
- Others as proposed...
 - *Materials*



Midwest Big Data Hub

Accelerating the Big Data Innovation Ecosystem



IOWA STATE
UNIVERSITY



UNIVERSITY OF
NORTH DAKOTA

Cross-cutting Rings supported by MBDH

- **Data Science**

- *Including Data Intensive Research in the Social, Behavioral, and Economic Sciences*
- *Replicability and Reproducibility in Data Science*

- **Education**

- *Including new approaches to STEM learning environments...*

- **Data Tools and Services**

- Data sets
- Services to share data and tools to act on them

Goals and outcomes / anticipated impacts

- Developing and securing funding for new public-private partnerships
 - Additional funding from agencies (NSF, NIH, DOE, NIST, USDA...), NGOs, governments, industry will be sought
- Accelerating technology transfer projects
- Introducing new Big Data educational activities into universities, industry and government
 - Data policies, management, and best practices with real data for real impact
 - Will involve, train many young data scientists

Goals and outcomes / anticipated impacts

- Starting pilot activities in data environments
 - Collaborations to develop and test new approaches to data sharing, policies, algorithms
 - Work with various organizations to test pilots with real data
 - For example: helping farmers balance productivity and sustainability with detailed data on crop growth, soil conditions & environment
- Developing and implementing new sustainability models
 - Models for long term data stewardship, private-public partnerships, educational practice
 - Different approaches will be needed!

First “All-hands” meeting

- ~95 participants in-person and virtually
- Getting to know who people and organizations across the Hub
 - New connections made there at the meeting that will move activities forward
 - Spokes are energized and organizing workshops
 - Presentations included discussion of Spoke Proposals submitted
 - Hub engaged to understand what spokes need from us
- Hearing from Industry and non-academic partners
 - How do we best partner?
- Refining governance of MBDH

Additional outcomes and action steps

Cross-cutting Ring efforts

- MBDH is leading efforts on the Data, Tools and Services ring
 - a cross-Spoke working group is starting up
 - initiating a cross-hub team
 - planning a workshop
- Identifying opportunities to develop and disseminate data science training
- Begin to assess data assets, needs and gaps

Next All-hands meeting in the fall, 2016

Midwest Big Data Hub

Accelerating the Big Data Innovation Ecosystem



IOWA STATE
UNIVERSITY



Hub activities of note

Funding Opportunity: CCC-sponsored seed funds

- Enhancing Industry-Academic Big Data Collaboration and Partnerships for Early Career Researchers
 - proposals due 5/1
 - <http://midwestbigdatahub.org/funding/call-for-seed-funding-proposals/>
- Workshops:
 - University of North Dakota (UND) will host an Early Career Big Data Summit (ECBDS) April 6-8, 2016* (incl. a hackathon)
 - Digital Agriculture Spoke All-Hands Meeting May 16-17, Ames

Several more in the works – will be posted on MBDH website

Thank you

Melissa Cragin
cragin@illinois.edu

