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Community Capability Model Interest Group Meeting

RDA 3rd Plenary Meeting
Thursday 27th March, 2014
Dublin, Ireland

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Further Information:

<http://communitymodel.sharepoint.com/>



Current Interest Group Goals

- To demonstrate application of the CCMF Profile tool across a range of contexts and communities: disciplines, organisations, groups etc.
- To collect completed profiles from researchers in a diverse range of disciplines and sub-disciplines
- To investigate opportunities to customise the Profile template for particular disciplinary domains

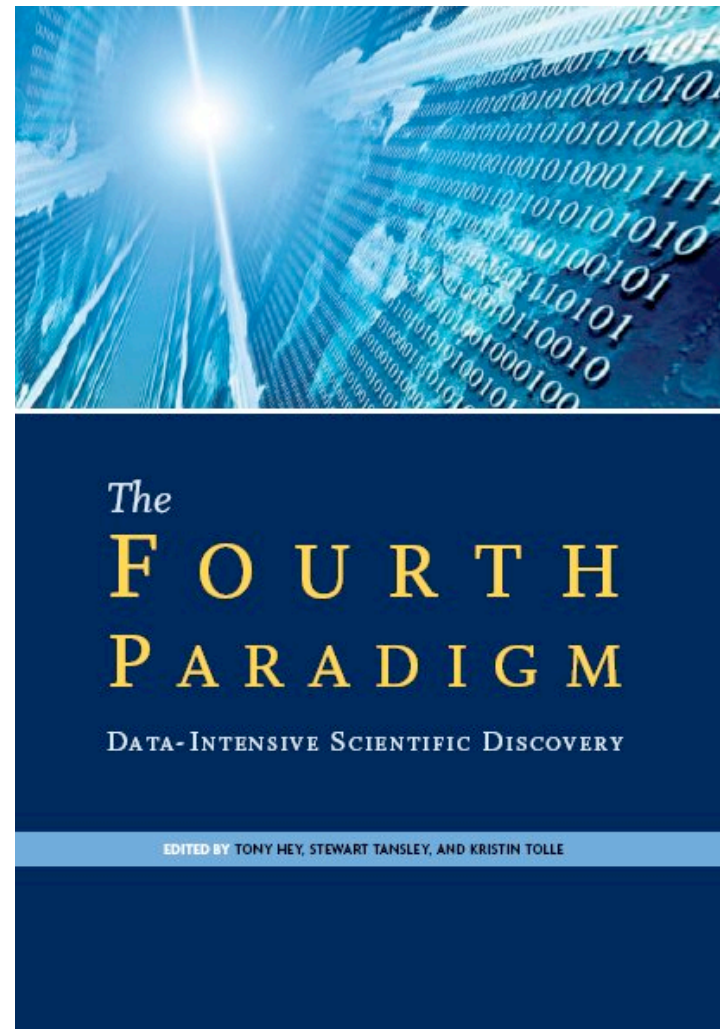
Meeting Agenda

- Review of CCMF Profile tool (for newcomers)
- Developments since 2nd RDA Plenary Meeting
 - Use case: Agronomy
 - Use case: DataONE
- Issues
- Discussion and Next steps
- AOB

Context

- Experimental Science
 - Observational description of natural phenomena
- Theoretical Science
 - Use of models and equations
e.g. Newton's Laws
- Computational Science
 - Digital simulation of complex phenomena
- Data-Intensive Science
 - Unify experiment, theory and simulation

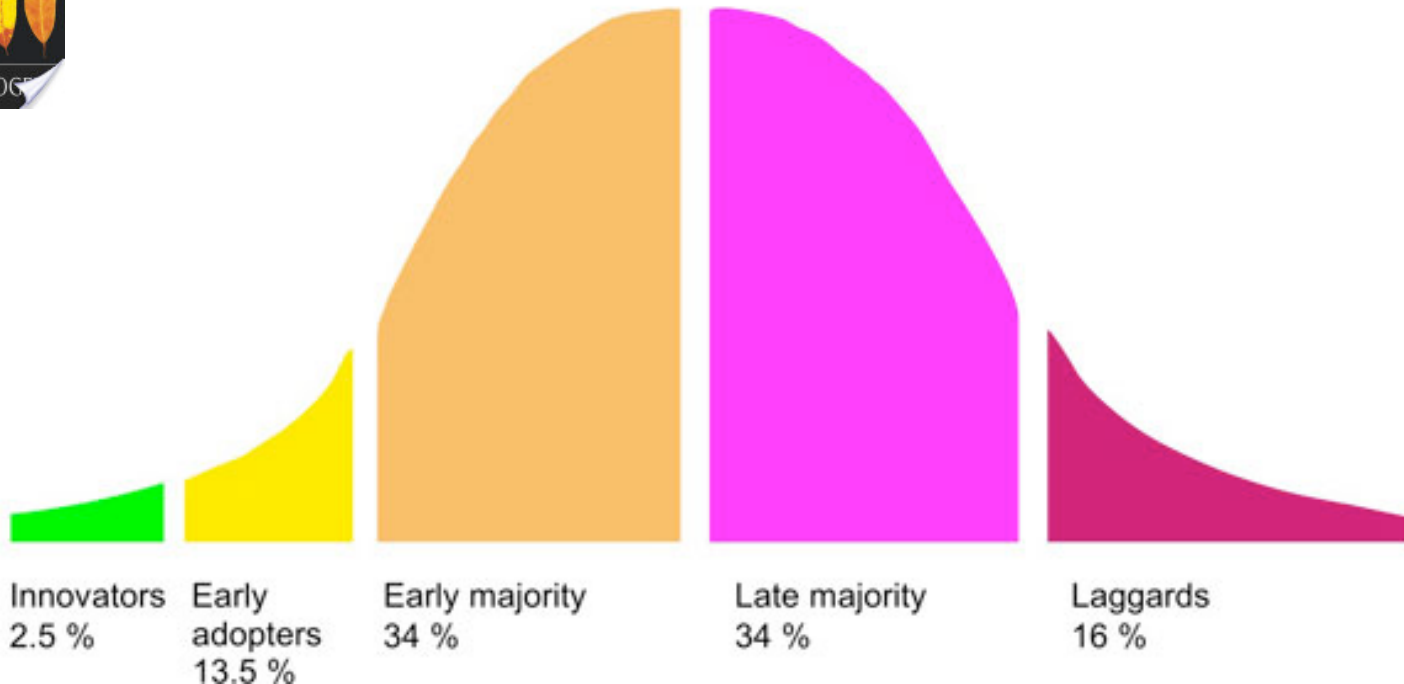
- Jim Gray
- Data-Intensive Research
 - Intensive data collection and processing
 - Big Data
 - Aggregation of diverse datasets



Diffusion of Data-Intensive Research



Everett M. Rogers, *Diffusion of Innovations*, Fifth Edition 2003, Free Press, New York
http://books.google.co.uk/books/about/Diffusion_of_Innovations_5th_Edition.html?id=9U1K5LjUOwEC



Motivations for DIR

- **Funding Bodies** (e.g. NSF, European Union, UK Research Councils, Trusts, Learned Societies, Companies, Foundations)
 - Derive maximum research, economic and social benefits from investments
 - Improve the quality and efficiency of research (robust and reproducible)
 - Increase knowledge transfer within discipline; across disciplines; between sectors
 - Build sub-disciplinary, disciplinary and inter-disciplinary communities
 - Develop added-value services based on corpora of research data
- **Institutions** (e.g. HEIs, Facilities (e.g. CERN, STFC, EMBL))
 - Improve the quality and efficiency of research (robust and reproducible)
 - Increase ability to attract research funds
 - Build institutional and cross-institutional communities
 - Develop added-value services based on corpora of research data
 - Include data citation into research evaluation systems e.g. UK's REF
- **Researchers** (Principal Investigators)
 - Opportunities for new and innovative research
 - Improve the quality of research (robust and reproducible)
 - Improve citations and reputation
 - Career advancement
 - Add data citation into research evaluation systems e.g. UK's REF

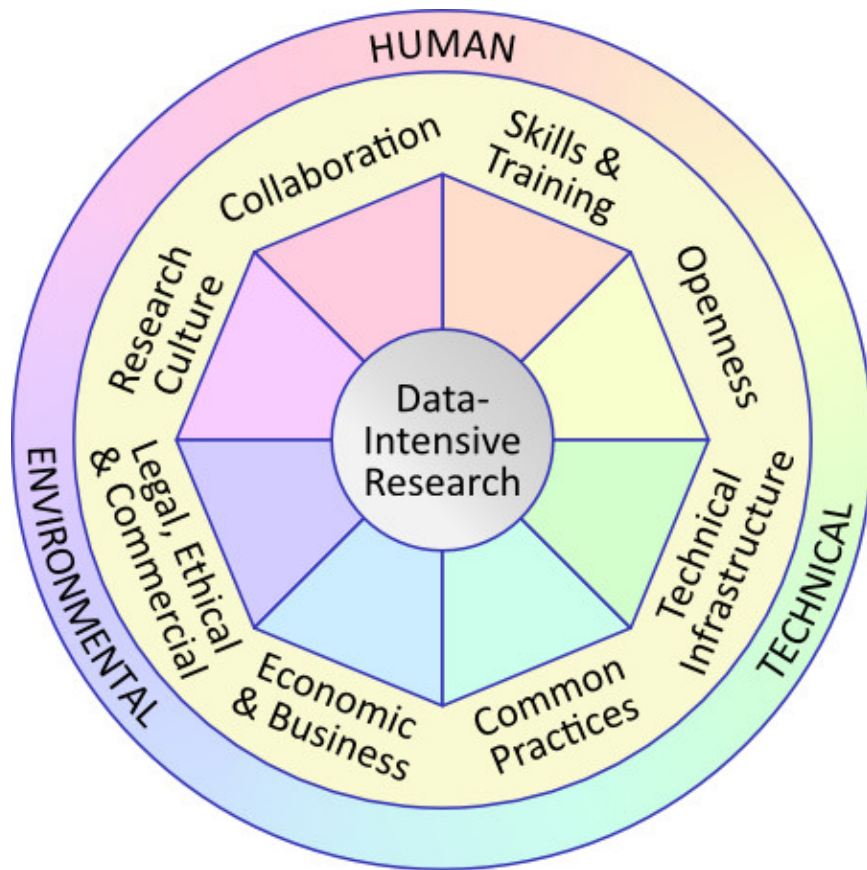
Data-Intensive Research Lifecycle



Areas that need particular attention

- Legal, ethical and commercial issues
 - IPR, privacy, sensitivity, licensing
- Gaining informed consent for reuse and repurposing
- Appraisal and quality control
 - Collection and acquisition policies, peer review
- Trustworthiness
 - Metadata, documentation, context, provenance, transparency
- Scale and complexity of data
 - Workflows, methodologies, software, OAIS Representation Information
- Publication and sharing
 - Release policy, controlled access (embargoes), indexing, interoperability (syntax and semantics), cross-searching, federation
- Citation, attribution and accreditation in scholarly communications
 - granularity, versioning, persistent identifiers

The CCMF



communitymodel.sharepoint.com

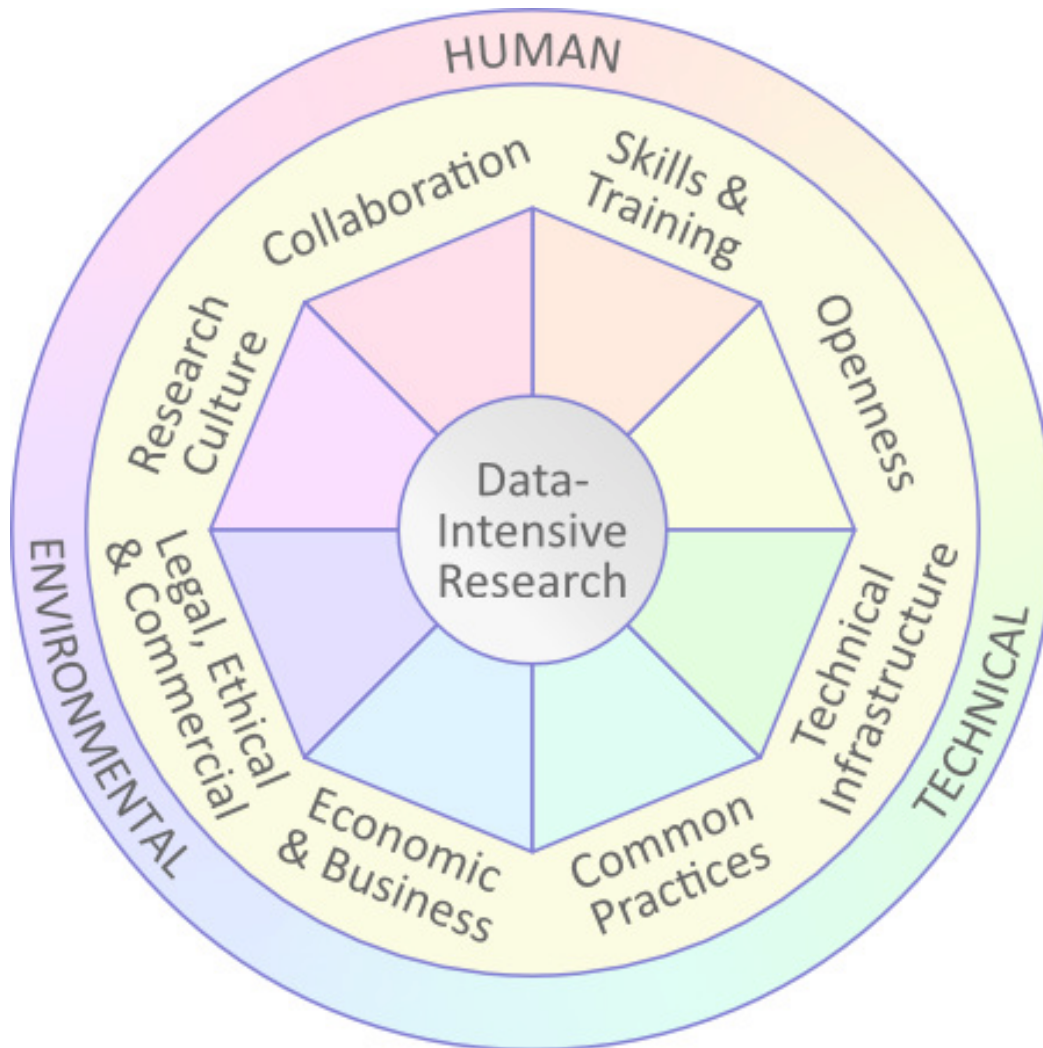
- The Community Capability Model Framework (CCMF)
 - Profiling current readiness or capability of a community for DIR
 - Indicating priority areas for change and investment
 - Developing roadmaps for achieving a target state of readiness

CCMF White Paper, April 2012

- Developed through consultation: case studies and workshops
- Primarily a tool for self-assessment and longitudinal studies
- Categorized into Environmental, Human and Technical elements with eight factors:

Openness	Legal, Ethical & Commercial
Collaboration	Economic & Business
Skills & Training	Common Practices
Research Culture	Technical Infrastructure
- Each factor has *characteristics* associated with it

CCMF Profile Tool Worksheets



Recent Developments

- IDCC 2014 workshop - Delegates wanted to
 - Change language to be more (sub)discipline specific
 - Change examples to be more relevant to their own domain
- Use case: Data Observation Network for Earth (DataONE)
 - An umbrella organisation covering all Environment Science
 - One Profile completed collectively by SMT on behalf of whole organisation
 - Need IRB approval to disseminate Profile to partners
- Use case: Agronomy (Purdue University)
 - Agronomy specific Profile template
 - Three Profiles completed by three individual agronomists
 - Need IRB approval for widespread dissemination and collection of completed Profiles

Agenda

- Developments since 2nd RDA Plenary Meeting
 - Use case: Agronomy
 - Use case: DataONE
- Review of CCMF Profile tool
- Issues
 - Who would like their completed Profiles to be published anonymously?
 - Who needs IRB approval before they are prepared to fill in the profile?
- Discussion and Next Steps
 - Domain “champions” to undertake localisation of Profile template
 - Collect lots of completed profiles for analysis and comparison
 - Effective visualisation of results and comparisons
 - Platform for community engagement
- AOB