CINET Registry

Aditya Agashe,
Harshal Ganpatrao Hayatnagarkar and
Sarang Joshi

Mentored by
Dr. Keith Bisset (NDSSL)
Workflow and entities

- **Input Network dataset**
  - Formats
  - Metadata
  - Properties

- **Select network**
- **Select measure**
  - Measures
    - Parameters
    - Platform
    - Complexity
- **Define analysis jobs**
  - Analysis job
    - Network
    - Measure
    - Resource
    - Metadata: Duration, user...
- **Schedule analysis jobs**
- **Collect output**
  - Resource
    - Type
    - Availability
    - Supported measures
  - Output Network/Image/Dataset
    - Format
    - Metadata
    - Properties

**DL**
Motivation

• From RDBMS to digital object repository
  • Common minimum subset of metadata
  • Creation of one table per kind of dataset to capture metadata

• Unified data model
  • Domain-specific metadata
  • Multiple dataset in data streams and respective metadata in single complex digital object.
Challenges

• Complex digital object for datasets
  • Multiple format files as embedded data streams.
  • Domain-specific metadata
  • Format conversion
    • Loss of info
    • Automatic conversion

• Analysis configuration specification
  • Entire analysis as complex digital object
  • Refers: Input, output, algorithms, user and so on.

• ‘Concept’: Plug-in based metadata element
  • For example, ‘Person’ entity can be plugged with disease specific metadata for different diseases.
Proposed Solution Architecture
Technology stack