Indiana CTSI Collaboration Tools

Bill Barnett Research Technologies, Indiana CTSI, PTI, CACR February 7, 2011



ACCELERATING CLINICAL AND TRANSLATIONAL RESEARCH www.indianactsi.org

What this talk is about...

- Collaboration background
- CTSA collaboration initiatives
- Indiana CTSI HUB Applications
- Future trends



Collaboration Background

- The intellectual capital to successfully undertake scholarly research is no longer found at a single institution, or a single country.
- Even within institutions and departments, collaborative research is increasingly becoming the norm.
- The resources necessary for competitive research are no longer found in an isolated research lab.
- Distributed analytical and computational facilities and online datasets are changing the research resource landscape



ACCELERATING CLINICAL AND TRANSLATIONAL RESEARCH www.indianactsi.org

Collaboration Trends

- Team Science is a higher risk, higher reward approach to research.
- Types of Collaborations include:
 - Social Networking
 - Knowledge Networking
 - Resource Networking
- With the current suite of Web 2.0 tools, it inevitably involves virtual collaboration and the creation of virtual organizations.
 - But lets not forget 'traditional' collaboration tools of telephones and conference calls, email, and teleconferencing.



Collaboration Trends

Persistence beyond face to face relationships requires:

- Motivations and Rewards
- Trust
- Dealing with cultural differences
- Governance and Management
- Shared Infrastructures and resource management
- Metrics and Assessment
- •Sustainability financial, intellectual, infrastructure



ACCELERATING CLINICAL AND TRANSLATIONAL RESEARCH

www.indianactsi.org

Types of Research Collaborations

- Highly distributed communities of independent scholars who share educational content and tools.
- Institutional collaborations to accelerate research workflows and move them online.
- Distributed research projects that have moved their analytical workflow online to accelerate research.



CTSA Collaboration Initiatives

Strategic Goal Committee 3: enhancing Consortium-Wide Collaborations

Collaborative Opportunities for Research Participation

Research Networking

- VIVO (vivoweb.org)
- Eagle-I (eagle-i.org)
- Direct2Experts (direct2experts.org)

Individual CTSA Institutions

- Profiles (catalyst.harvard.edu)
- Community Academic Profiles (med.stanford.edu)
- Loki (<u>www.icts.uiowa.edu/loki</u>)
- Digital Vitae (di.dental.pitt.edu/orc)



ACCELERATING CLINICAL AND TRANSLATIONAL RESEARCH

www.indianactsi.org

The Indiana CTSI HUB



A modular research collaboration portal based on *Joomla!* that excels at data sharing, modeling and simulations, multimedia content, community participation.

Originally created as nanoHUB at Purdue.



Indiana CTSI HUB Foundations

- Modular 'Model View Controller' Architecture
- Built in collaboration tools for sharing content
- HUBzero tools for online collaborative modeling and simulation
- Over 6800 Joomla extensions to add functionality

We added...

- Federated Identity support for authentication
- Ontology-based tagging



ACCELERATING CLINICAL AND TRANSLATIONAL RESEARCH www.indianactsi.org

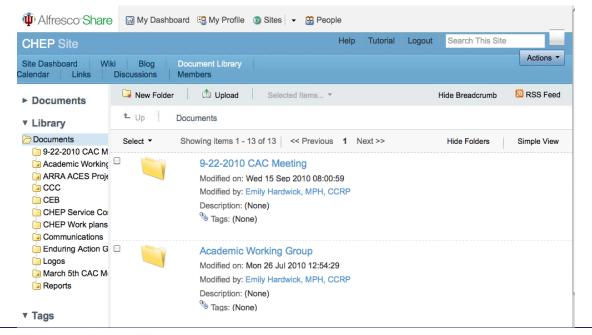
Indiana CTSI HUB Applications

- Grant Management System (Open Journal System)
- Clinical Trials Management
- Online Cores (cf. Eagle-I)
- Small Group Collaboration/File Sharing (Alfresco Share)
- Data Collection and Management (REDCap)
- Matchmaking for licensing to industry (i2iconnect)
- Volunteer Recruitment for Clinical Trials (INResearch)
- Email Newsletter



Alfresco Share

500 Users and 5 GB of documents. https://alfresco.uits.iu.edu

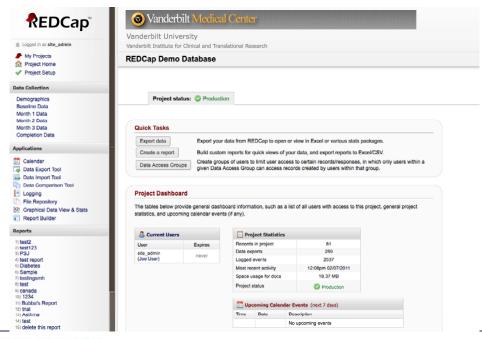


INDIANACTSI
Clinical and Translational Sciences Institute

ACCELERATING CLINICAL AND TRANSLATIONAL RESEARCH www.indianactsi.org

REDCap

175 Users and 110 Projects. https://redcap.uits.iu.edu





i2iconnect

912 Listings and 542 Users. http://i2iconnect.org





ACCELERATING CLINICAL AND TRANSLATIONAL RESEARCH www.indianactsi.org

Future Directions

- Profile Integration with Faculty Profiles with VIVO, Faculty Annual Reports (FAR) at IU Bloomington, Faculty Profile System (FPS) at IU School of Medicine, Indiana Database of University Research Expertise (INDURE).
- Creation of middleware to both consume and expose Linked Open Data (by August, 2011).
- CTSA2Community website (ctsa2community.org) as a repository of best practices for community engaged research.



Thank you.

Questions?

Bill Barnett, barnettw@iu.edu



ACCELERATING CLINICAL AND TRANSLATIONAL RESEARCH www.indianactsi.org