Indiana CTSI

Bill Barnett and Anurag Shankar Research Technologies and PTI, Indiana University HUBbub: April 6, 2011



What this talk is about...

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



Collaboration Background

- The intellectual capital needed to undertake scholarly research is no longer found at a single lab or institution.
- Collaborative research is becoming the norm.
- The resources necessary for research are distributed.
- Online public research datasets are changing the research process.



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

Cf. Beyond Being There: A Blueprint for Advancing the Design, Development, and Evaluation of Virtual Organizations (http://www.ci.uchicago.edu/events/VirtOrg2008/)

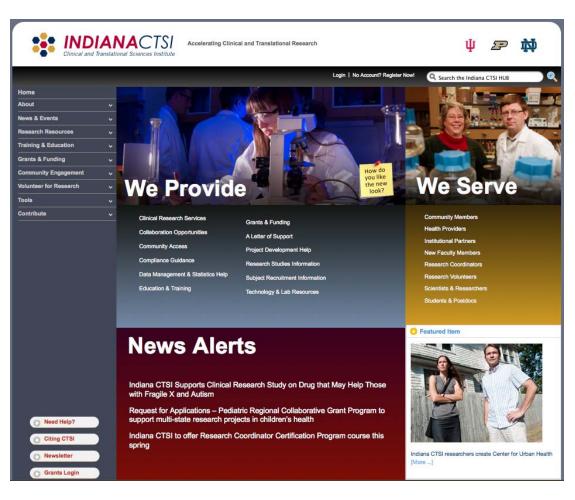


Types of Research Collaborations

- Communities of scholars who share tools. (eg., nanoHUB)
- Distributed research projects with online analytical workflows. (eg., cceHUB)
- Institutional collaborations to accelerate research processes and activities. (eg., IndianaCTSI HUB)



The Indiana CTSI HUB



Statewide multi-institutional initiative

'Translation' of research from basic to pre-clinical to clinical research, ultimately to improve health care.

Focus on process improvement (funding, collaboration, research administration)

Communities other than Researchers

Indiana CTSI HUB Foundations

The Usual HUB capabilities...

- Modular 'Model View Controller' Architecture
- Built in publishing tools, etc. for sharing content
- Over 6800 Joomla extensions to add functionality

We add...

- Federated Identity support for authentication
- Ontology-based tagging in partnership with the National Center for Biomedical Ontologies (NCBO)



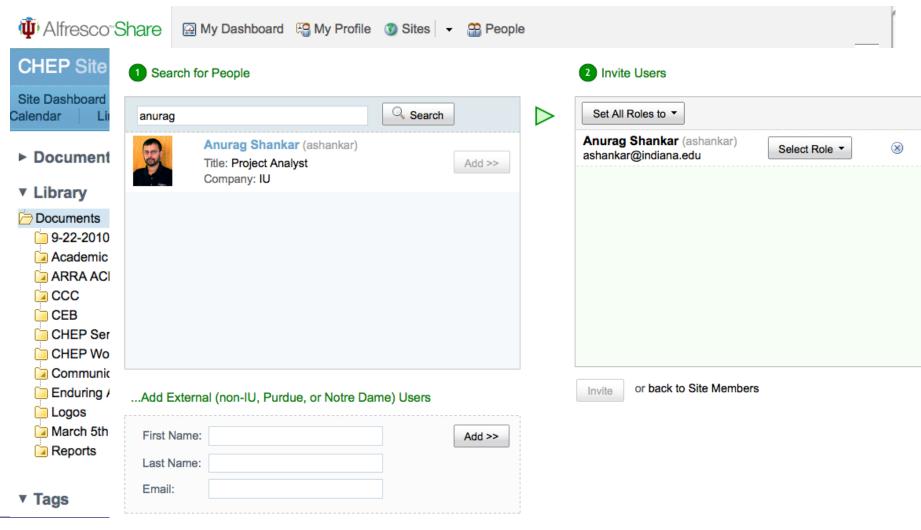
Indiana CTSI HUB Applications

- Grant Management System (Open Journal System)
- Public listing of Clinical Trials
- Online Core Facilities
- 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

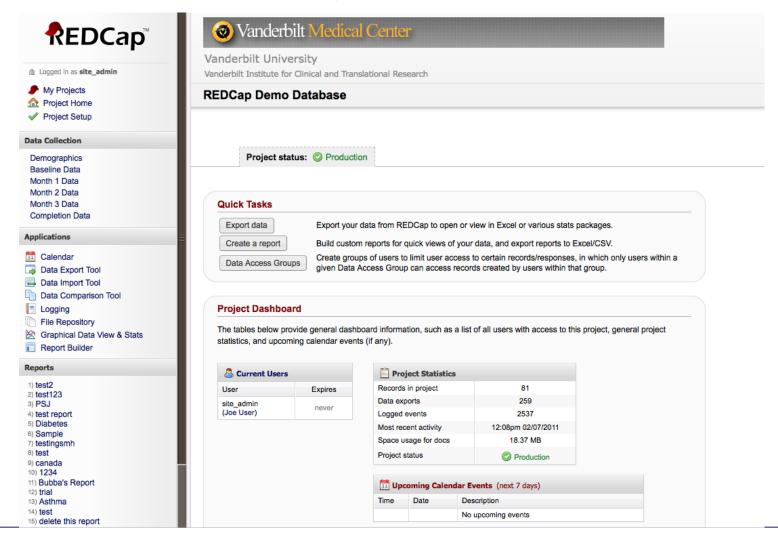
500 Users and 5 GB of documents. https://alfresco.uits.iu.edu





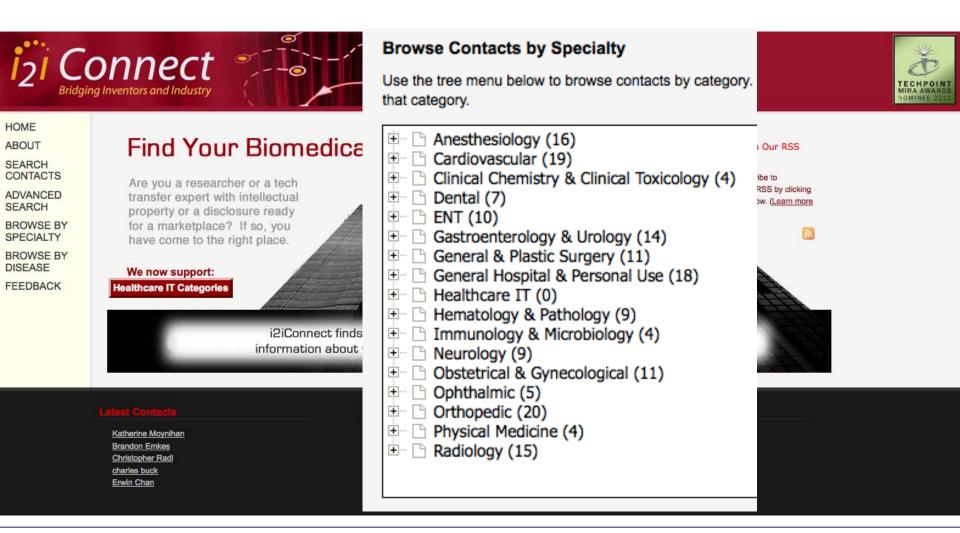
REDCap

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



i2iconnect

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





INResearch.org

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What is INresearch.org

Welcome and thank you for visiting INresearch.org!

INresearch.org is a secure, password-protected registry of Indiana resident volunteers who want to participate in health-related research. Signing up is free! The goal of this registry is to match interested volunteers with researchers. This registry was developed by the Indiana Clinical and Translational Sciences Institute, a collaboration between Indiana University, Purdue University and the University of Notre Dame. Our goal is to improve health care by discovering new treatments and cures.

I want to participate ...

Register now

The Indiana CTSI currently has approximately 1,700 research studies open to recruitment. Although this is a statewide institute, the majority of these studies take place in Indianapolis on the Indiana University-Purdue University Indianapolis (IUPUI) campus.

Hear from those who participated...

"My experience in three clinical trials has been phenomenal. Although not cured, my quality of life for the nearly four years since diagnosis has been excellent. The professionalism and compassion of my [physician], the nurses, and staff have been truly exceptional." - IU Clinicial Research participant at Indiana University School of Medicine

"Research studies not only offer the potential for improved treatment to the individual clinical trial participant, but very importantly, provide the means for development of improved and safe therapies." - IU Clinicial Research participant at Indiana University School of Medicine

Public portal to recruit volunteers for clinical trials

Collects medical information for prospective volunteers

To do: develop a researcher interface into this to recruit for trials and integrate data from Indiana Health Information Exchange (IHIE)



CTSA Research Networking

VIVO (vivoweb.org)

- Ontology of terms for faculty profiles
- A set of architectural standards, based on Linked Open Data
- Applications that consume Linked Open Data (like VIVO)

Eagle-I (eagle-i.org)

- Ontology of terms for resources (cores, databases, biobanks)
- Architectural standards of resource inventory systems
- Integrated system for managing and exposing resources

Direct2Experts (direct2experts.org)

29 CTSAs demonstrating federated profile search.



Future Directions

- Profile Integration with Faculty Profiles with VIVO, Faculty profile systems at IUB and IUSM, and Indiana Database of University Research Expertise (INDURE).
- Creation of middleware to both consume and expose Linked Open Data (by August, 2011) as part of VIVO.
- CTSA2Community HUB (ctsa2community.org) as a repository of best practices for community engaged research.
- (Hopefully) BAH 10-001 RFA for Linked Open Data



Thank you.

Questions?

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