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eResearch Collaboration

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Today's Topics

- What are eResearch hubs
- Hub (Community) Models
- Some Examples
- A&RT's Involvement



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An Important Conversation

- National Science Foundation
- NASA
- National Institutes of Health
- Your next favorite funding agency



What are eResearch Hubs?

- Collection of tools and data wrapped in a paradigm-centric collaborative Web (hub) environment
 - Goal: Enable Research, Education and Outreach across user communities
 - In many cases... Unique!



Provide...

- Access to Interactive Tools
 - Simulation, Visualization, Analytical
- New Tool Development and Integration
- Enhanced workflow capabilities
- Access to Grid and High Performance Computing



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Manage...

Collections

Analyze

Databases

Share

Present

Results

Data Sets



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Collaborate...

- Tag
- Annotate
- Document
- Share (Data and Tools!)
- Instant Communication
 - Webconferencing, Chat, PM



Present...

- Written and spoken analysis
- Education of community through Web accessible training
- Support online learning (and training) through new technologies and accessible tools
 - Keep the bread-crumbs to serendipity
- Become visible, be cited



Social impact...

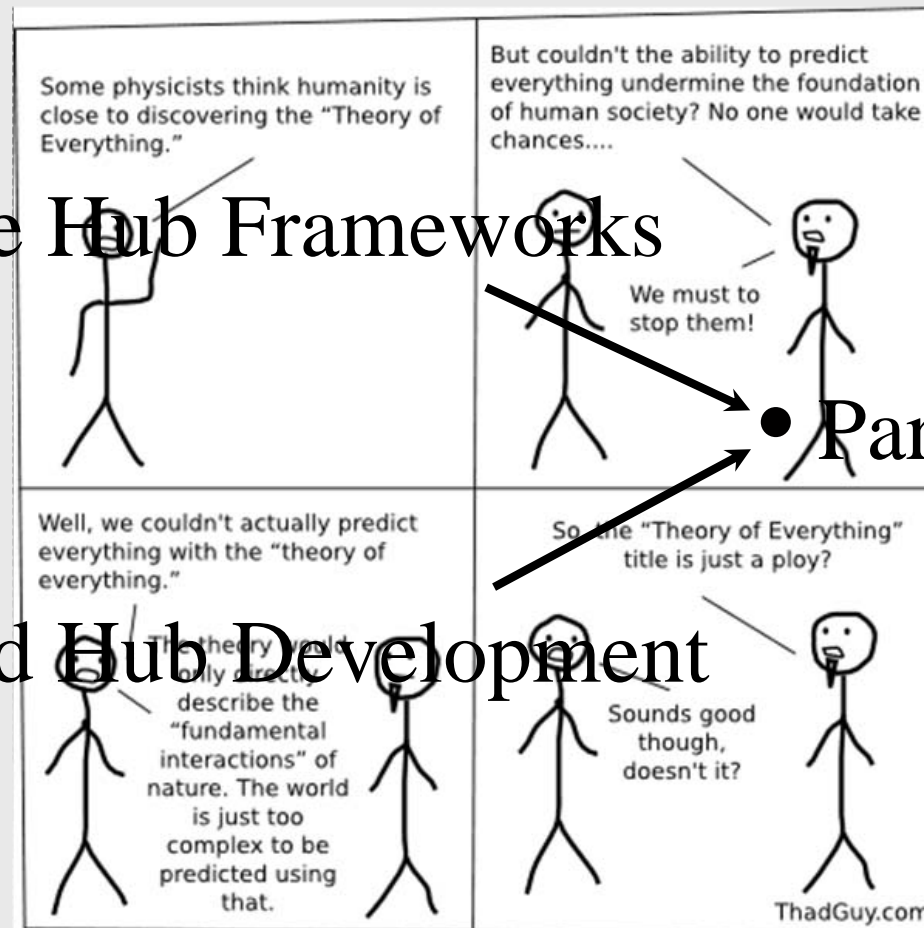
- Strong driver of hub mentality
- Understand community needs
- Shape hub environment
- Implement a plan for involvement
- Provide the tools needed to conduct effective research



Build...

- Extendable Hub Frameworks

- Specialized Hub Development



• Paradigm Hub



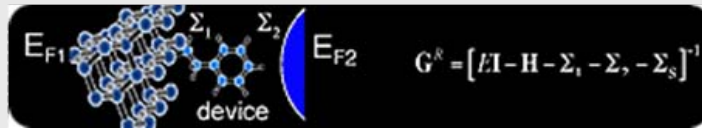
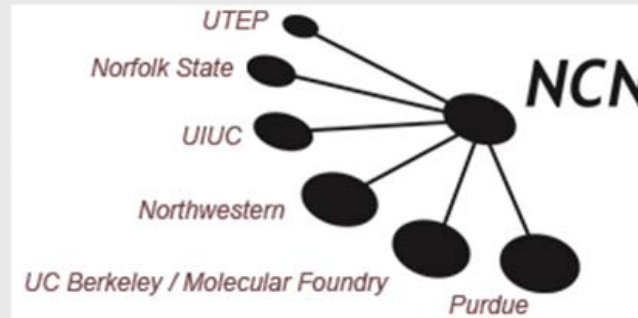
Platform: Hub Zero

- Case: HubZero
 - Extendable Hub Framework
 - <http://hubzero.org> | <http://nanohub.org>

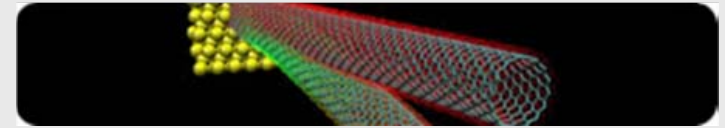


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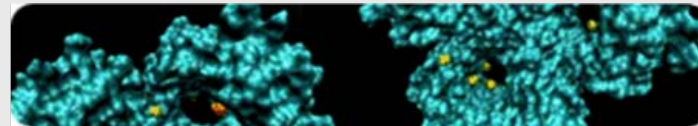
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Nanoelectronics



Nanoelectromechanical Systems



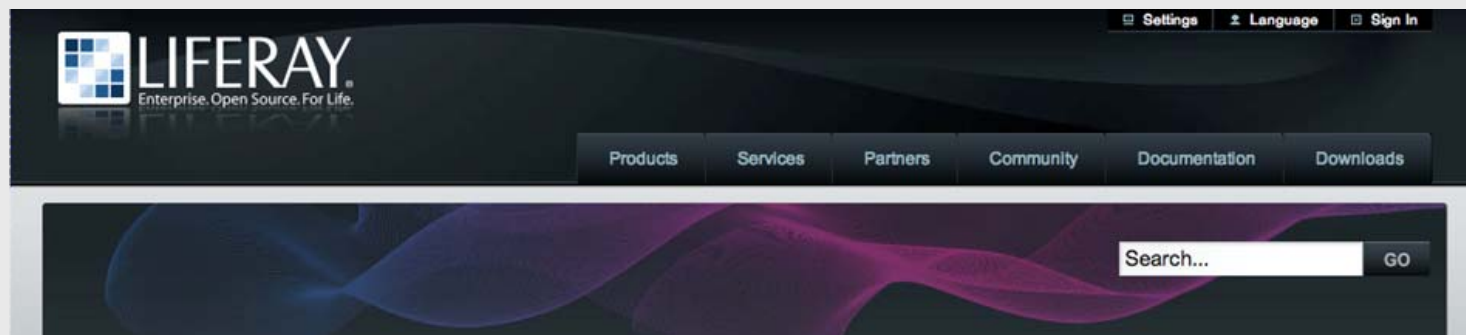
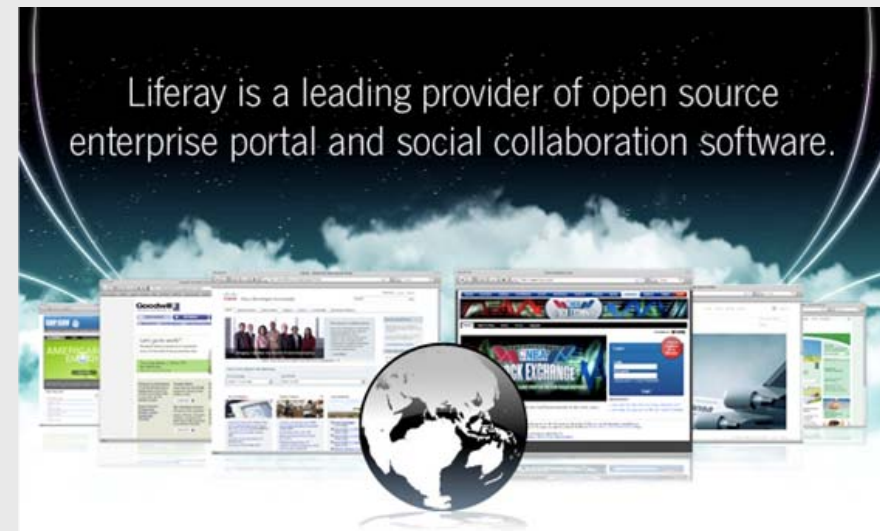
Nano-Bio



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Platform: LifeRay

- Case: LifeRay
 - Standards based (JCR, JSR)
 - Yes, a portal!
 - NCSA/NIH/TeraGrid



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Case: Bamboo

- Paradigm Hub (Planning stage)
- <http://projectbamboo.org>



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Case: iPlant Collab

- Paradigm Hub (Planning Stage)
- <http://iplantcollaborative.org/>



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Case: Oncofertility

- Specialized Hub Environment, Open Framework
- <http://oncofertility.northwestern.edu>



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Case: Oncofertility

For Patients

What impact will your disease or its treatment have on your future fertility? What options are available to preserve your fertility? Find out more here—because there is life after cancer (and other serious diseases).

[Tell Me More](#)

For Physicians

Because each patient's fertility will be impacted differently by their disease and its treatment, fertility preservation must be tailored and integrated with their treatment regimen. Learn more about what options may be available to your patients.

[Tell Me More](#)

For Researchers

Fertility preservation technologies are advancing rapidly; read more about the efforts by Oncofertility Consortium researchers to expand the options for young men, women, and children diagnosed with cancer or other serious diseases.

[Tell Me More](#)



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ADMINISTRATIVE CORE

BIOENGINEERING PRIMATE FOLLICLES

BIOMATERIALS CORE

FERTILITY MEASURES AFTER CANCER

FOLLICLE CRYOPRESERVATION

HUMAN FOLLICLE MATURATION IN VITRO

LEARNING MODULES IN ONCOFERTILITY

PILOT PROJECT PROGRAM

SOCIAL SCIENCE AND ONCOFERTILITY

TRAINING GLOBAL SCHOLARS

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What is Oncofertility?

Oncofertility refers to an interdisciplinary and interprofessional approach to developing and providing new fertility preservation options to young men, women, and children who have been diagnosed with cancer or other serious diseases and who must undergo potentially fertility-threatening treatment.

[LEARN MORE](#)



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A&RT Involvement

- Realize significance
- Active in the eScience community
- Providing consulting and grant support
 - NIH Challenge Grant
- Looking to build on this conversation



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Questions?



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