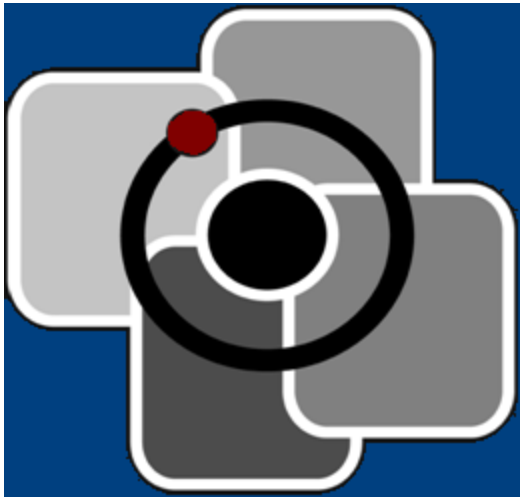

Videos:
VLC Objectives link - http://youtu.be/yO_iu4GzRZs
VLC Demo link - http://youtu.be/nXq60mj9uy4

The Virtual Learning Commons

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November 5, 2012

ASM 2009

- Two workshops
  - Content requirements
  - System requirements
- 48 attendees
- Results: need for *community-generated* content:
  - Technical explanations of approaches and tools;
  - Descriptions of how a specific technology is actually used – the work context and work flow in real settings from users' perspective;
  - Awareness of social and organizational context – both of those who create technical approaches and of LTER itself;
  - Understanding of scientific data/methods being supported by IM

Background

- 2008 Discussion with Kristin
  - Disconnect between technologies being developed vs IM needs
  - How to understand and keep up
- *ASM 2009
  - Series of working meetings on learning in information management
- Spring 2010 met with IM Exec (briefly)
- Finland Jan 2011
  - Kristin, Deana, Karen Baker, Helena Karasti
  - Collaborative learning and learning systems
- March 2011 NSF CI-Team proposal
- September 2011 award
  - Built on prior research on human factors in technology learning and adoption; cross-disciplinary learning and diffusion of innovation
    - 2002-2007 SEEK
    - 2006-2008; 2008-2010 NSF CI-Team projects

Project Goals

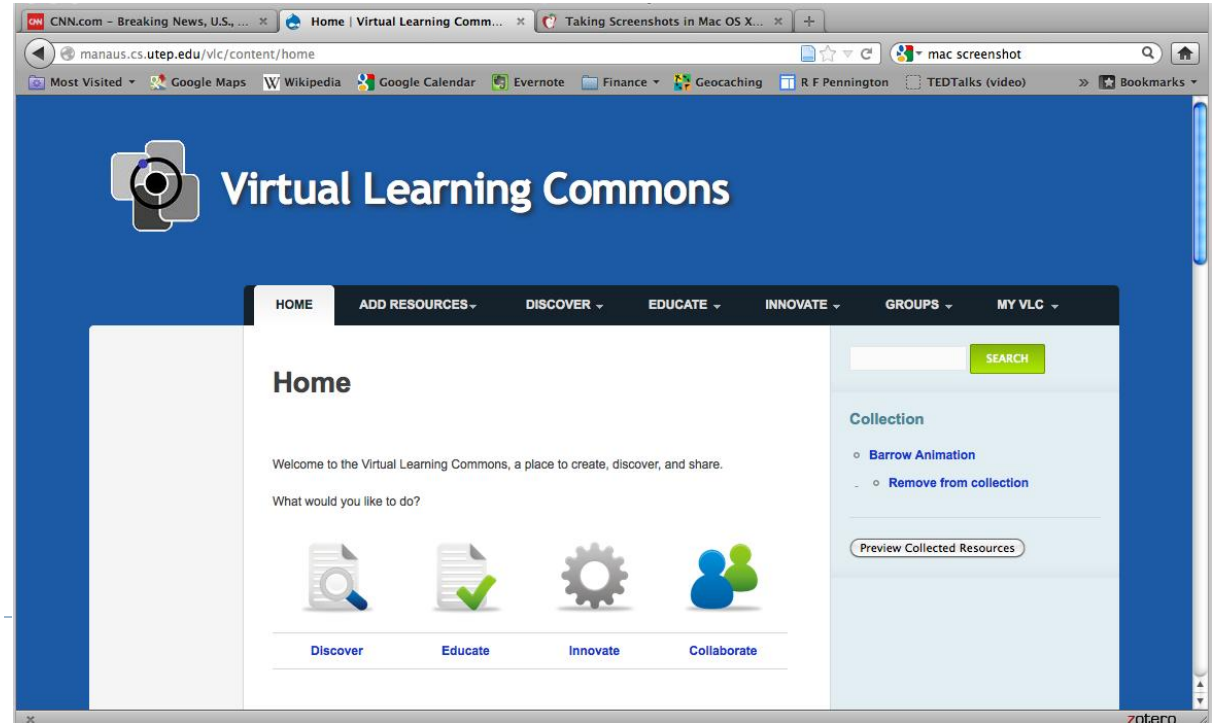
Goal 1: Create a virtual learning environment focused on new and existing techniques for data and information acquisition, exchange, analysis, and integration of data;

Goal 2: Engage local, regional, national and international STEM research and education communities in both face-to-face and virtual settings; and

Goal 3: Continue to develop and extend our understanding, theories, concepts, and models of interdisciplinary collaboration and diffusion of technical innovations in STEM research settings. [This research builds on two prior CI-Team projects]

Proposed solution: The Virtual Learning Commons (VLC)

- Assist users in *finding* relevant existing content about a given technology (VLC Discover)
- Support users in self-directed *learning* about that technology (VLC Educate)
- Support users in *appropriating* that technology into their work (VLC Innovate)
- Enable collective *learning and discussion* around content (VLC Collaborate)

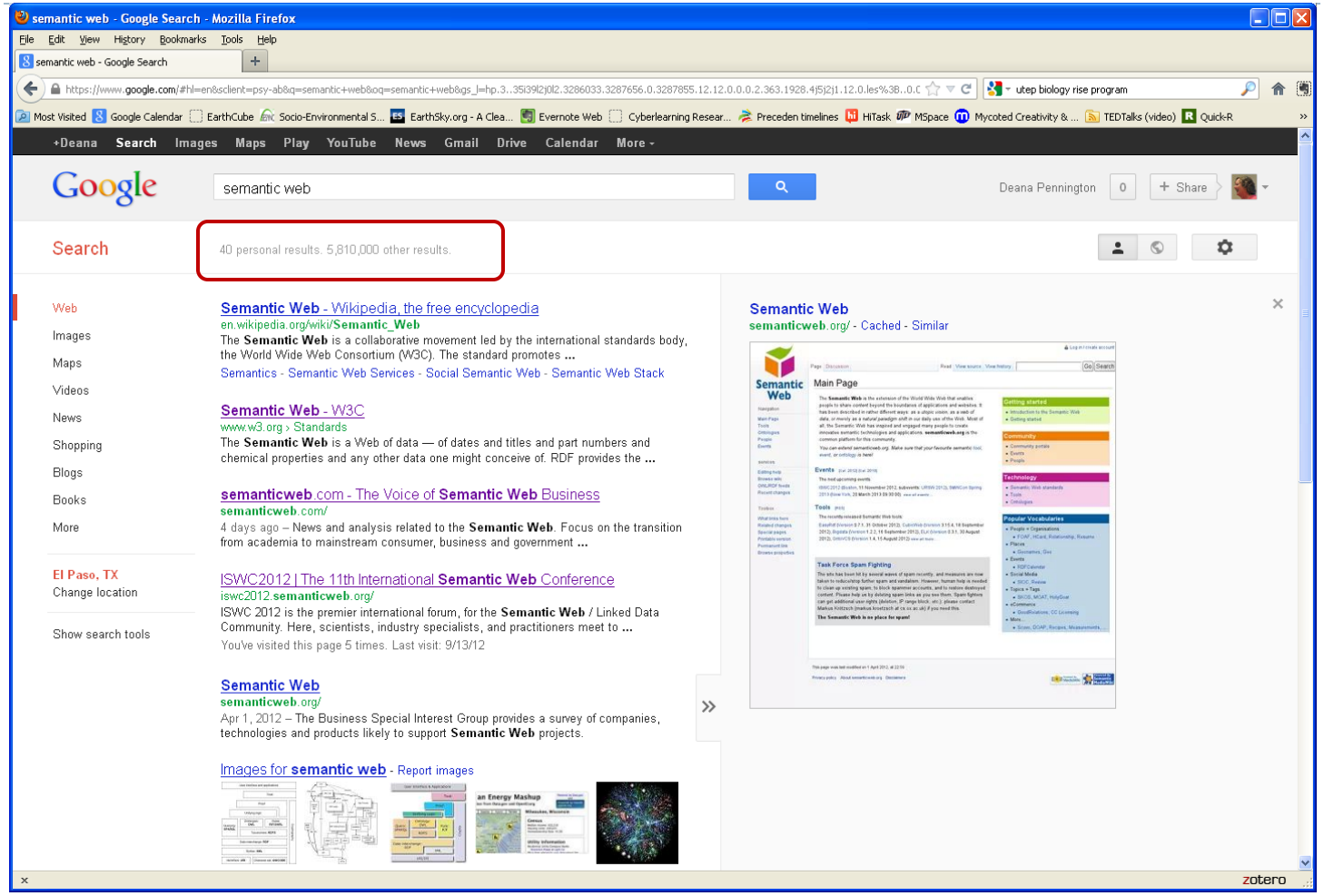


What is different about the VLC?

- Many online learning systems for classroom education
  - But they assume there is a teacher designing the learning experience and creating content
- Many online systems for sharing documents
  - But they assume that you own the content and you just need to share it
  - The resources you need to share and discuss may not belong to you
- VLC handles DISTRIBUTED collections
  - Content of interest exists out on the Web – and need to be organized by you into collections that make sense to you (Semantic Web solution)
  - You contribute discussion and auxiliary materials around that content (Social Web solutions)
- VLC is INNOVATION-CENTERED:
  - Targets learning across disciplines in research settings where materials are limited, for the purpose of appropriating new approaches into different settings

Discover
Educate
Collaborate
→ Innovate

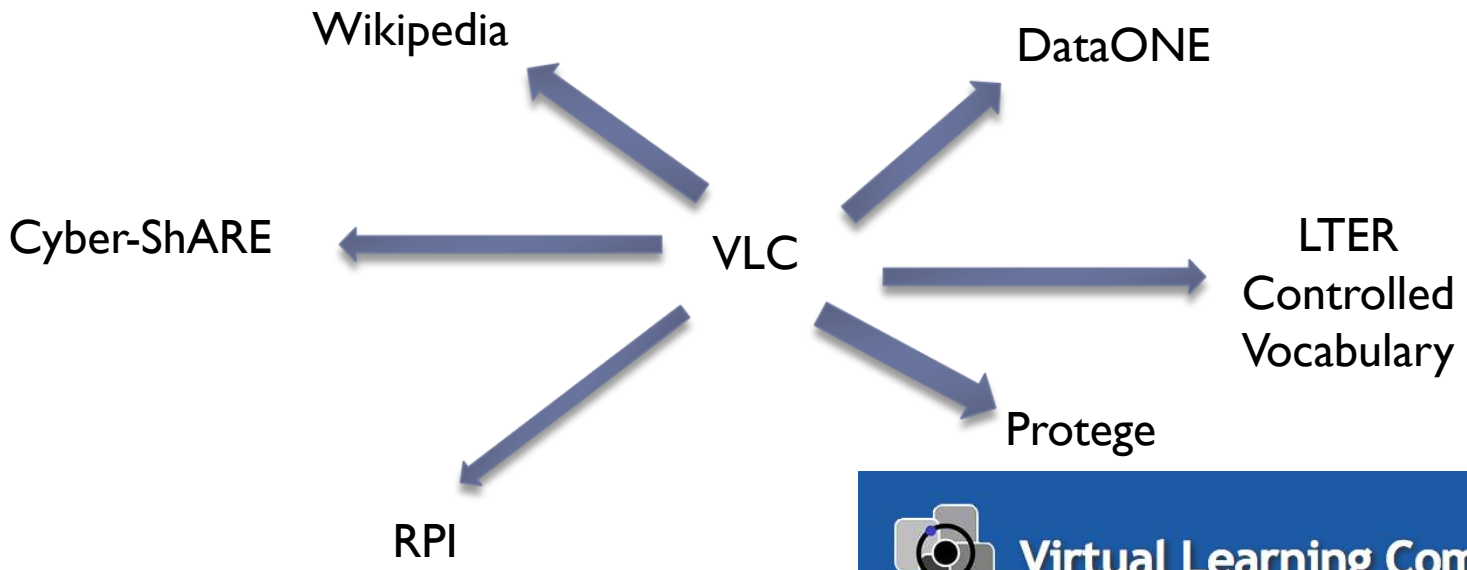
Google Search



LTER Controlled Vocabulary??

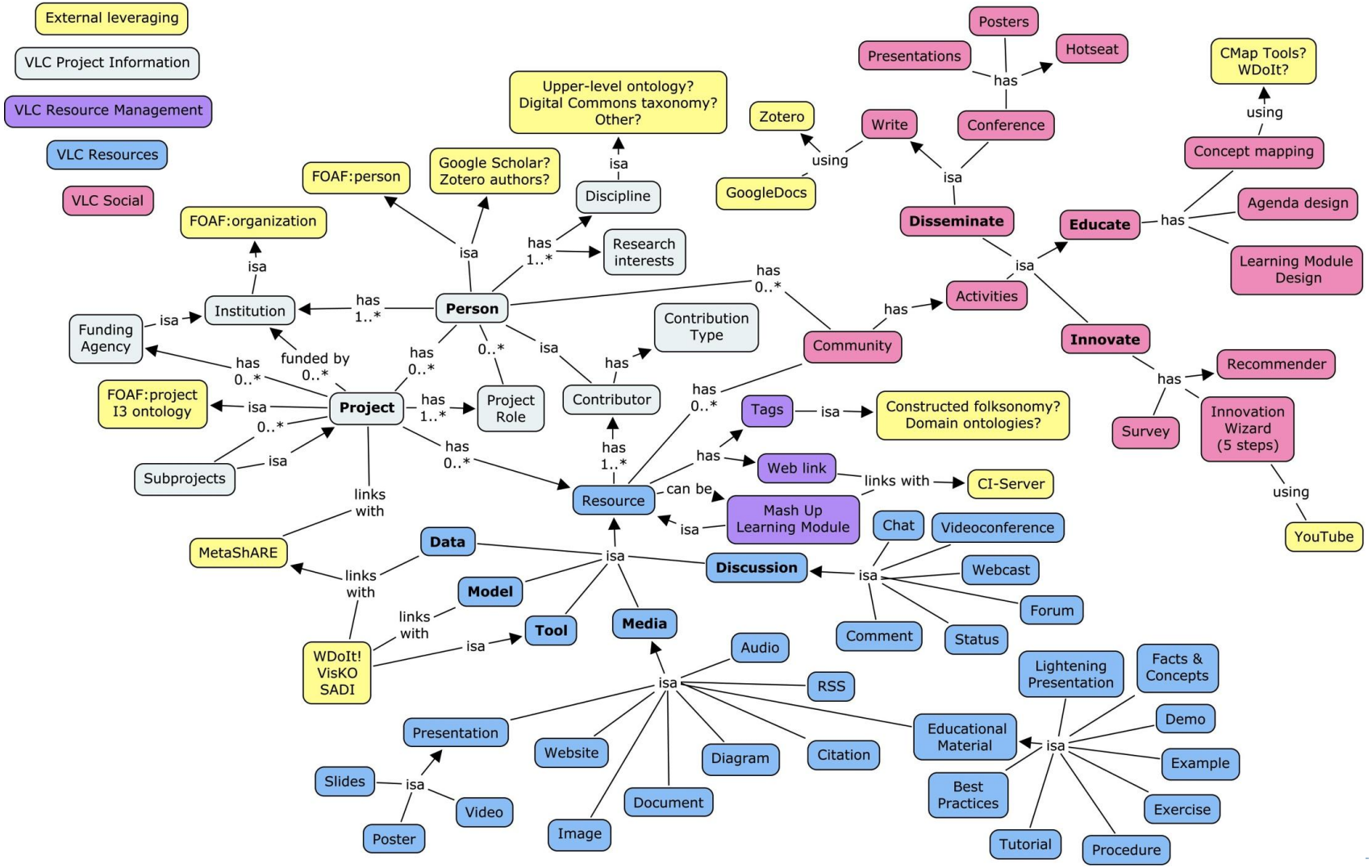
LTER Projects/People??

Distributed Resources About Semantics



1. Tags embedded in projects' registered website
2. Tags manually captured and managed in the VLC

Concept Map of VLC Ontology



Semantic-Based Mashups

[1]Ontologies definition (fact)
[2]Ontology approaches (concepts)
[3]Pizza ontology (tutorial)
[3]Wine ontology (example)
[4]Climate ontology (example)
[5]Biodiversity ontology (example)
[6]Jane Doe discussion (synthesis)
[6]John Smith discussion (synthesis)
[7]Recommendations (people who conducted this search also searched…)

[1]Wikipedia → General source
[2]W3C website
[3]Protege website → Academic IT source
[3]Protege website
[4]Cyber-ShARE educational portal → Academic domain sources
[5] DataNet educational portal
[6]Jane Doe practical application → Networked learning sources
[6]John Smith practical application
[7]System analysis → Recommender source

Social Web: STEM Communities

1. LTER Information Managers
2. UTEP STEM Educators
3. Geo-Epidemiology Research Network

VLC targets sharing within and across communities

VLC Discover

Home | Add resources | Discover | Educate | Innovate | Help | Collect | My Account | Log out

Create collection

- My own (private)

Shared:

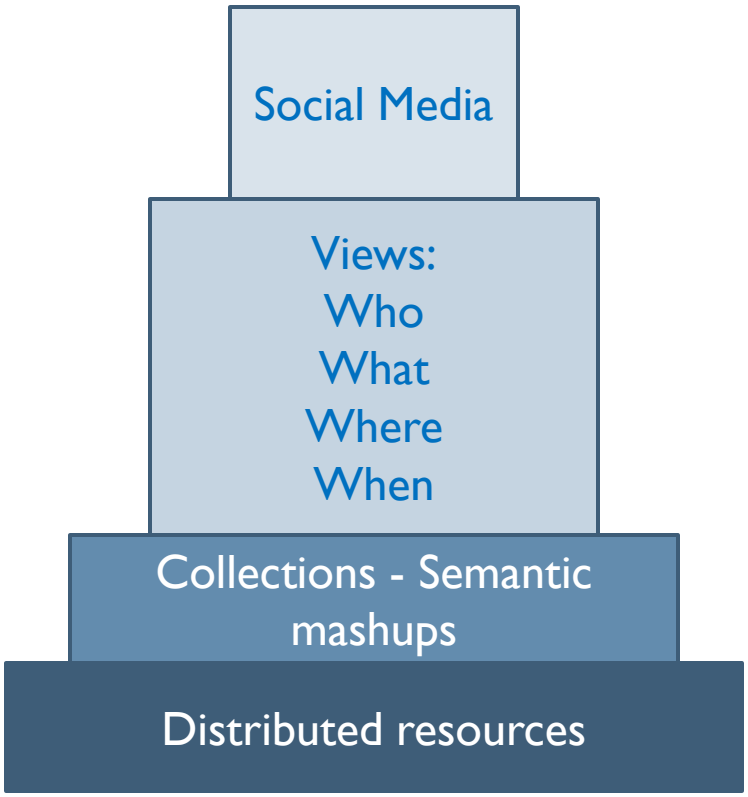
- Public (with everyone)
- Private (with specified group)

TAG CLOUD
(Newest entries)

TAG CLOUD
(Entire site)

Feedback box

VLC Approach



VLC Discover

Home | Add resources | Discover | Educate | Innovate | Help | Collect | My Account | Log out

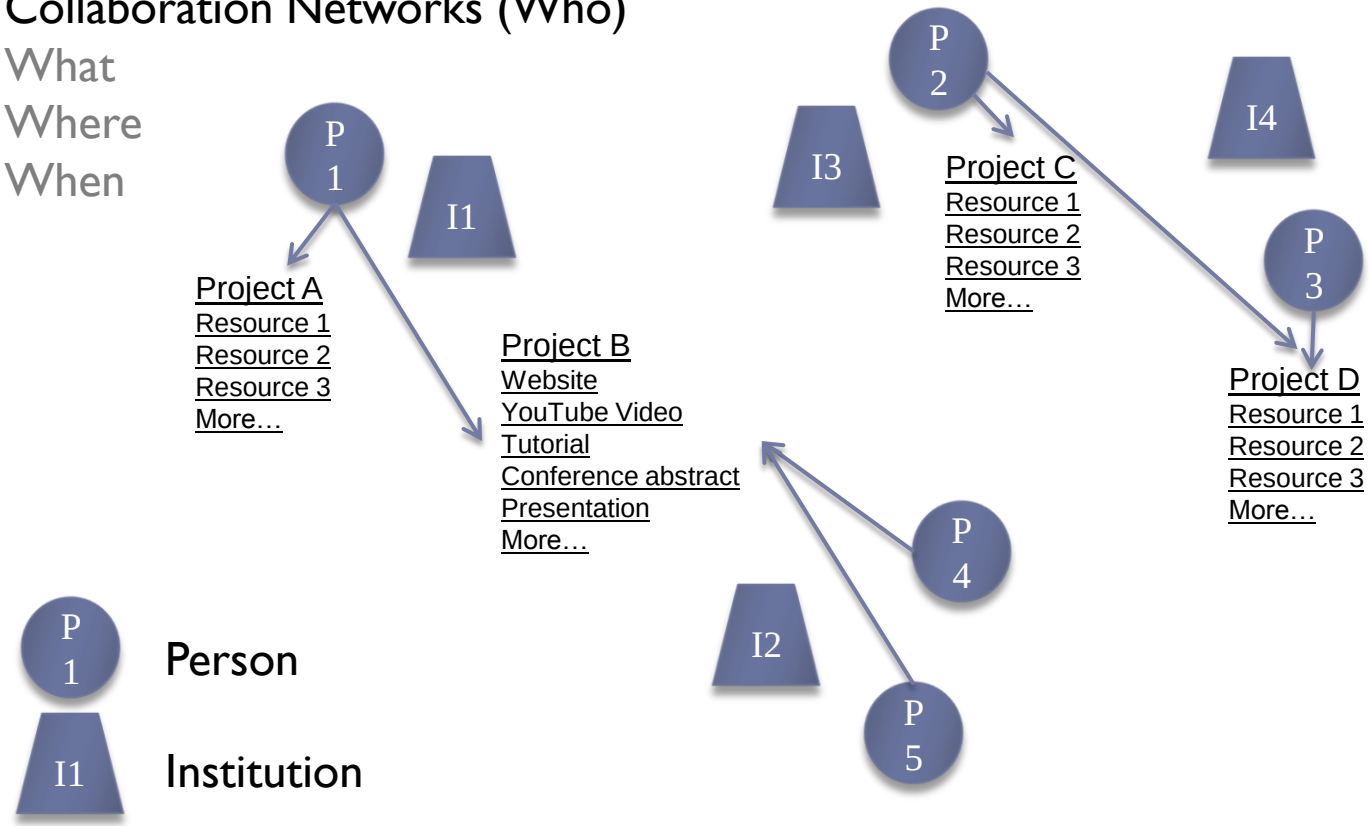
Discover!

Collaboration Networks (Who)

What

Where

When



LIST: People

LIST: Institutions

Feedback box

VLC Discover

Home | Add resources | Discover | Educate | Innovate | Help | Collect | My Account | Log out

Discover!

Who
List (What)
Where
When

- ❑Resource 1 NEWEST
- ❑Resource 2
- ❑Resource 3

More

TAG CLOUD (Newest entries with these tags/terms)

- ❑Resource 1
- ❑Resource 2
- ❑Resource 3
- ❑Resource 4
- ❑Resource 5

More

TAG CLOUD (Entire site with these tags/terms)

Feedback box

Collect

VLC Discover

Home | Add resources | Discover | Educate | Innovate | Help | Collect | My Account | Log out

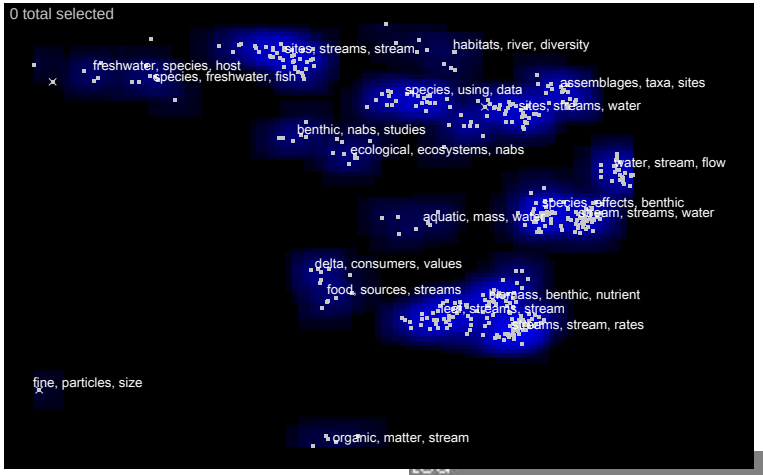
Discover!

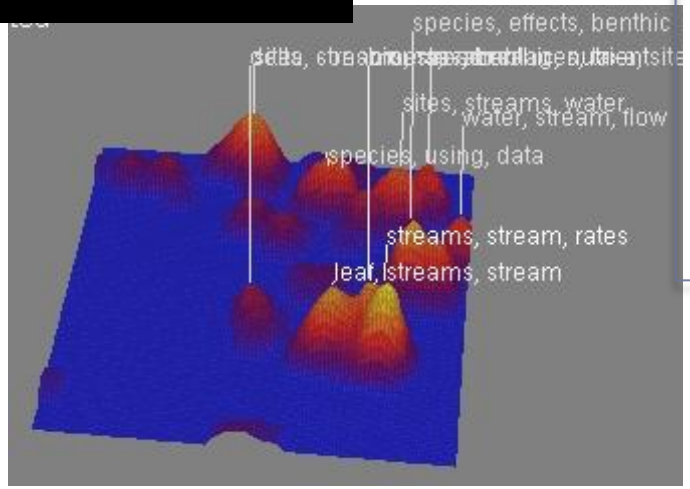
Who

Cluster (What)

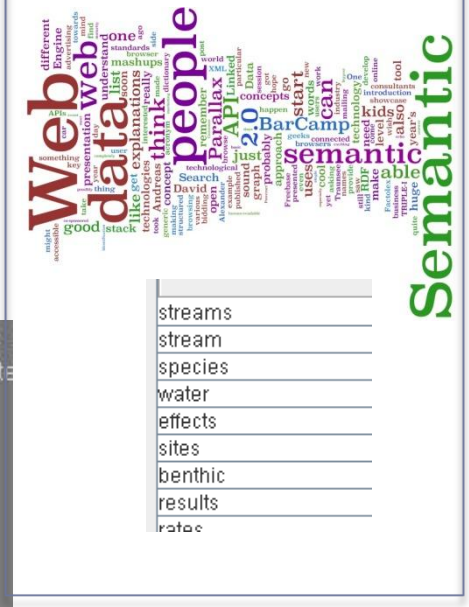
Where

When





Selected cluster



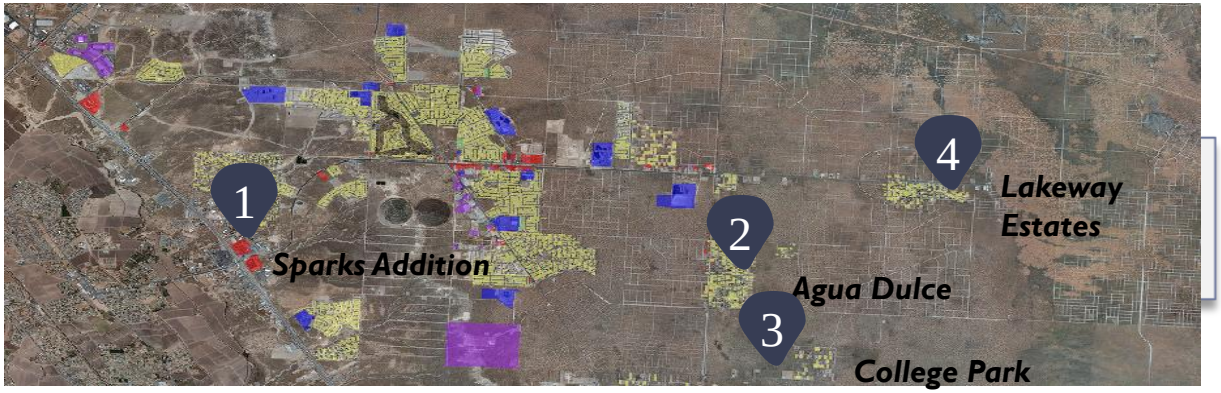
Feedback box

VLC Discover

Home | Add resources | Discover | Educate | Innovate | Help | Collect | My Account | Log out

Discover!

Who
What
Where
When



1 Project A
Website
YouTube Video
Tutorial
Conference
Presentation
More…

2 Project A
Resource 1
Resource 2
Resource 3
More…

3 Project B
Resource 1
Resource 2
Resource 3
More…

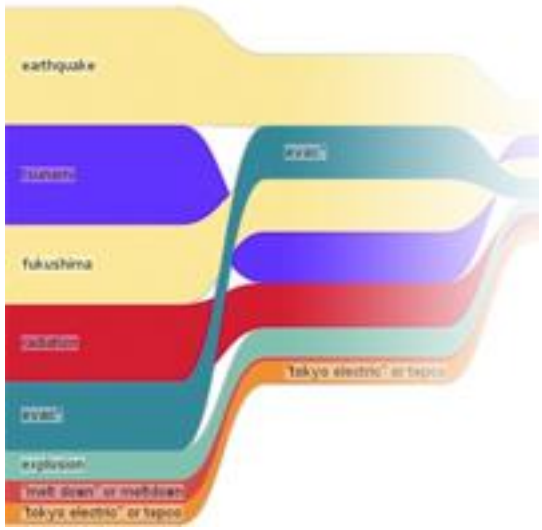
4 Project C
Resource 1
Resource 2
Resource 3
More…

VLC Discover

Home | Add resources | Discover | Educate | Innovate | Help | Collect | My Account | Log out

Discover!

Who
What
Where
When



Feedback box

VLC Educate

Home | Add resources | Discover | Educate | Innovate | Help | My Account | Log out

Educate!
Create course
Create virtual conference

VLC Innovate

Home | Add resources | Discover | Educate | Innovate | Help | My Account | Log out

Innovate!

Search term(s)

Searches:

- *Elevator speeches*
- *One page flyers*
- *Lightning talks*
- *Semantic Abstract workflows*
- *Tutorials*
- *Exercises*

Design research

- *Semantic abstract workflows*
- *Data management planning*

VLC Research

- What are the patterns that researchers use to discover and evaluate resources in virtual space?
- How does networked learning impact those patterns?
- What is the impact of networked learning on technology adoption?

LTER IM is KEY

1. I know the community and you know me!
2. The project has evolved from discussions with you
3. I *think* I understand your problems
4. VLC success depends on community contribution and sharing of content, knowledge, and expertise…I *think* your wealth of experience will make this a success
5. We have budgeted funds for small meetings of LTER IMs specifically to work on content (Kristen)
6. We have budgeted funds for an extra day at the annual IM meetings for training (Kristen).

Acknowledgements

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