We can, as we understand the prehistoric, understand the future by reading the artifacts.

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Community Blogging

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Outline

- What Constitutes Community?
- Against the Long Tail
- Meaning
- Distributed Network Semantics

1. What Constitutes Community?

- Real World: Put people in the same place, that constitutes community
- Online? The concept of community as proximity
- The traditional model of an online community (*a la Net.Gain*) – set up a web site, give it a topic, enable interaction, retire to the Cayman Islands

The Pervasive Site-Based Model

- In online learning – almost a global presumption that a learning community is based in an LMS or a learning portal
- In social networking – same theme – hence, Orkut, Friendster, even Flickr
- But… is Yahoo a community? How about Yahoo Groups?

Common Aspects of Communities

- Figallo – “web of relationships," "an exchange...of commonly valued things…”
- Bock – “common interests, frequent interaction, and identification…”
- Paccagnella – “articulated pattern of relationships, roles, norms, institutions, and languages developed on-line.”

http://www.fullcirc.com/community/definingcommunity.htm

Communities as Networks of Semantic Relations

Two major elements:

1. The network – the idea that there is in some sense a *relation* in and among a group of people
2. Semantics – the idea that these relations are *about* something – a topic, a value, an interest, a set of beliefs…

We have today a pretty sophisticated understanding of networks – but a much less informed understanding of meaning…

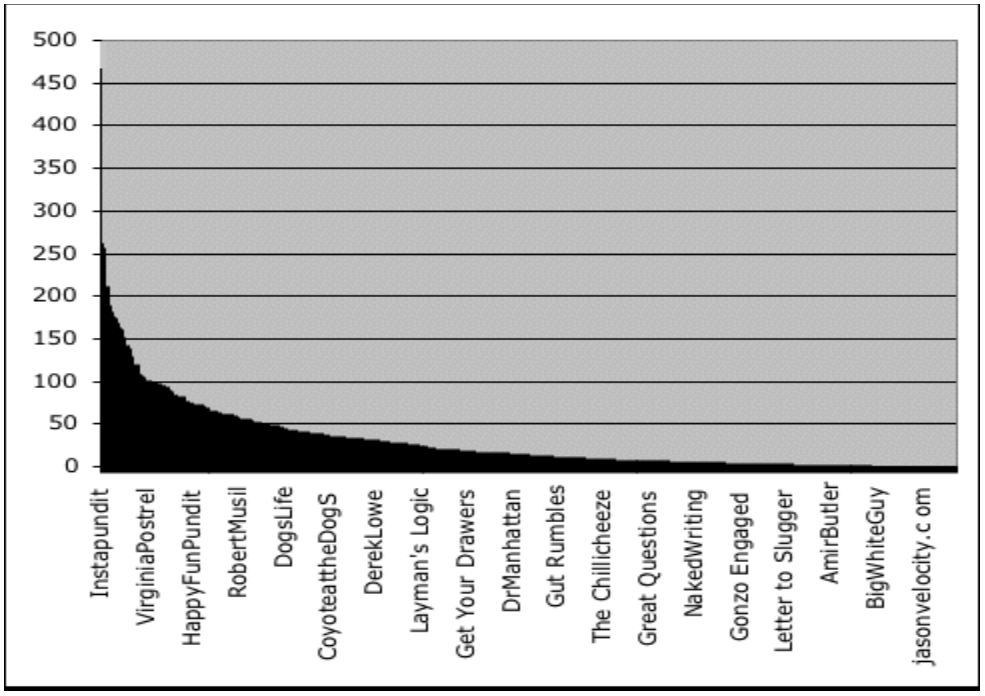
2. Against the Long Tail

• The *long tail* – a property of *scale free networks*

• The idea: some members are connected to many other members – the big spike – but the vast majority of members are connected to only a few other memers – the long tail

• Example – links in blogging – some sites (eg. *Boing Boing*) get throusands of links, most others (eg. *NewsTrolls*) get only a few

The Power Law and the Long Tail



http://www.shirky.com/writings/powerlaw_weblog.html

Conditions for Power Laws

1. growth – the network grows over time;
2. preferential attachment – nodes with a high degree are more likely

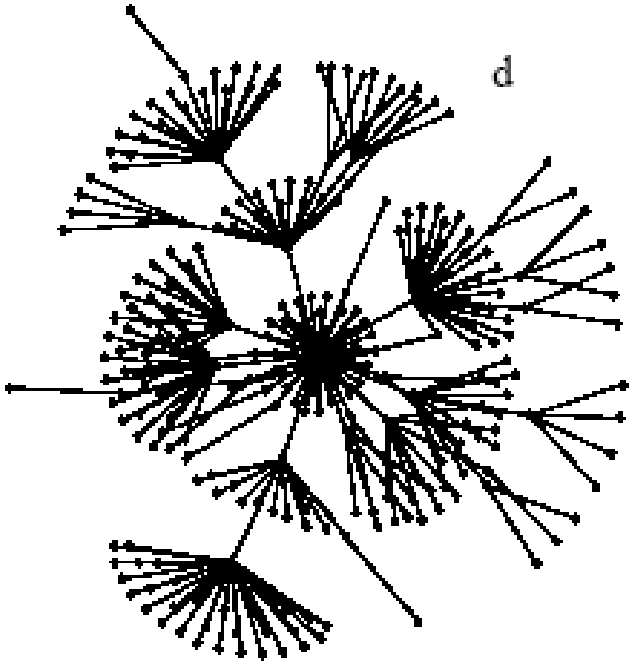
Albert and Barab´asi (2002)

http://www.math.uvic.ca/faculty/reed/draft_1.pdf

Base metaphor: the rich get richer

(People endlessly talk about the virtues of the long tail – these are inevitably people who are part of the big spike… http://ross.typepad.com/blog/2005/02/the_long_tale.html)

The Structure of Scale Free



http://www.santafe.edu/research/publications/workingpapers/02-04-019.pdf

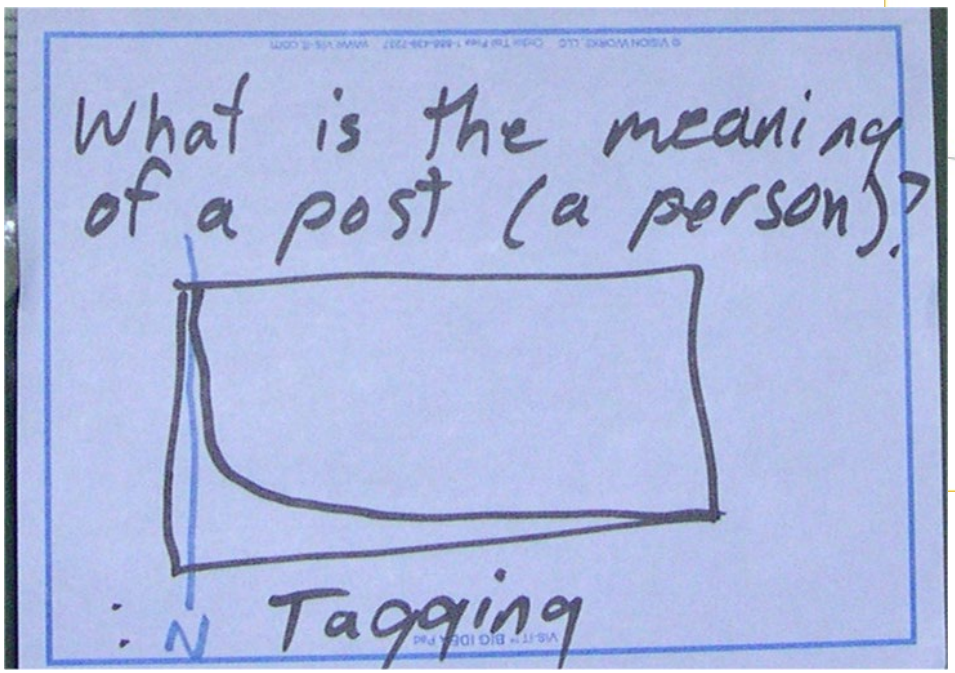
Preferential Attachment

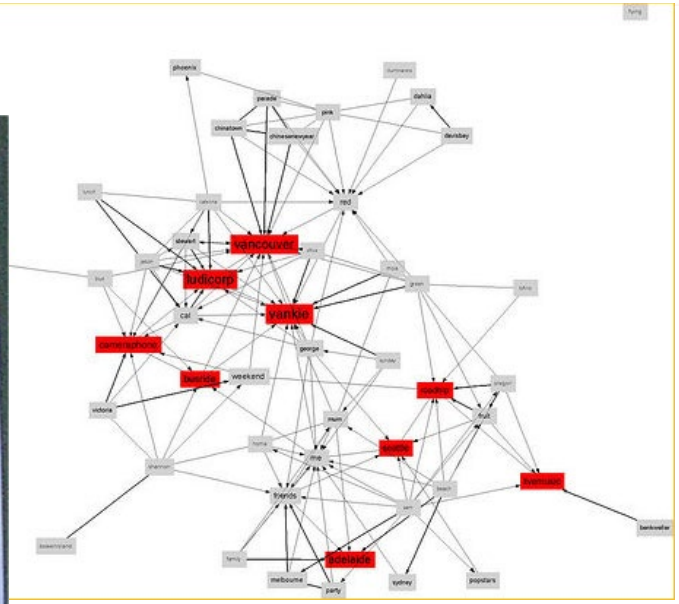
- If everyone were connected to everyone, there would be no long tail…
- Preferential attachment occurs because there is a *shortage…* of attention, of time, of money, of resources…
- And it occurs because attachments are created (more or less) at *random*
- Example: if you are a new blogger, what sites are you most likely to see first, if you looked at random?

Network Semantics

- The idea that networks are defined as not a set of random connections, but a set of semantically organized connections
- Returns us to the idea of community:
    - Community as proximity = random connections
    - Community as Networks of Semantic Relations = semantically based connections
- The idea: we don't pick the most popular, we pick the most salient

3. Meaning





http://www.technorati.com/tag/tagging

http://www.flickr.com/photos/ciro/4904655/

Wittgenstein: Meaning is Use

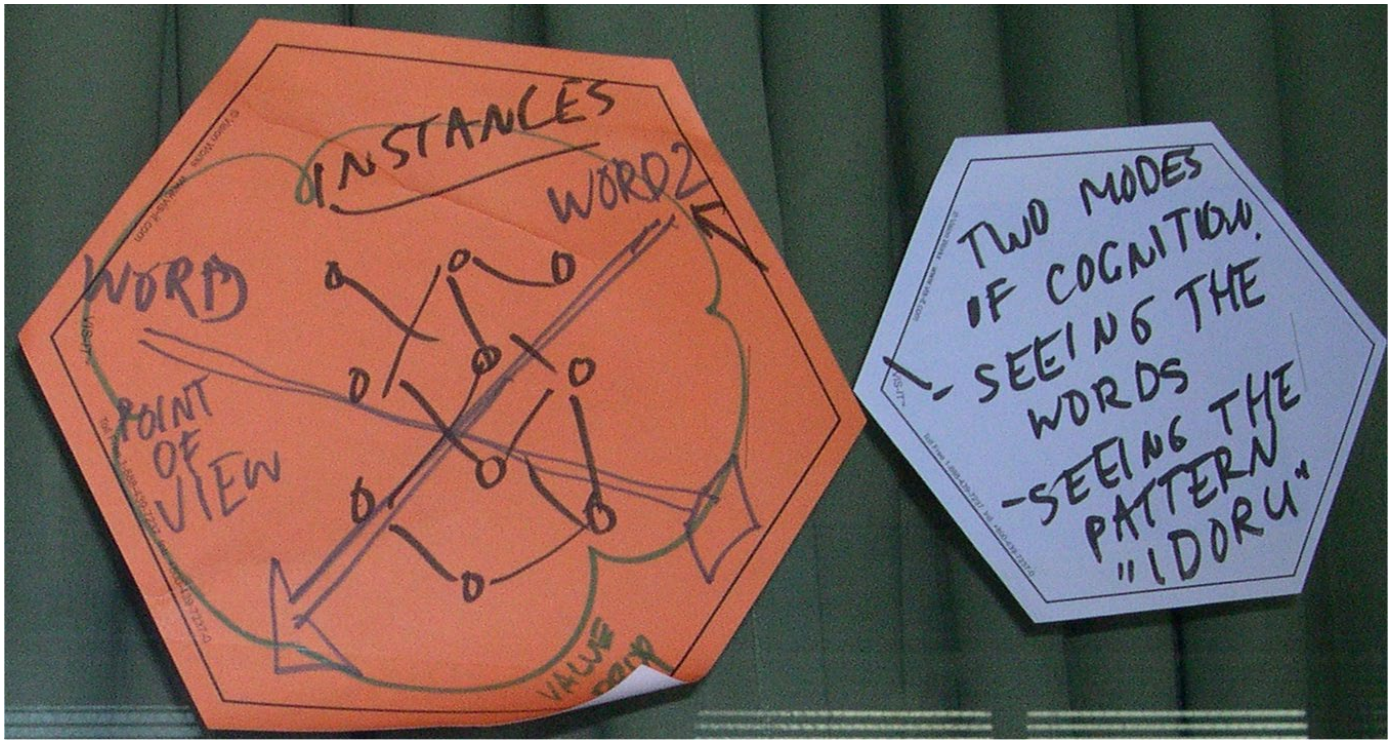
- The difference between: meaning being *inherent* in a word (a post, a person) and meaning being constituted by the *context* in which the word (the post, the person) may be found

- Definition: not a matter of classification, not a set of necessary and sufficient conditins – *family resemblances*

http://www.iep.utm.edu/w/wittgens.htm

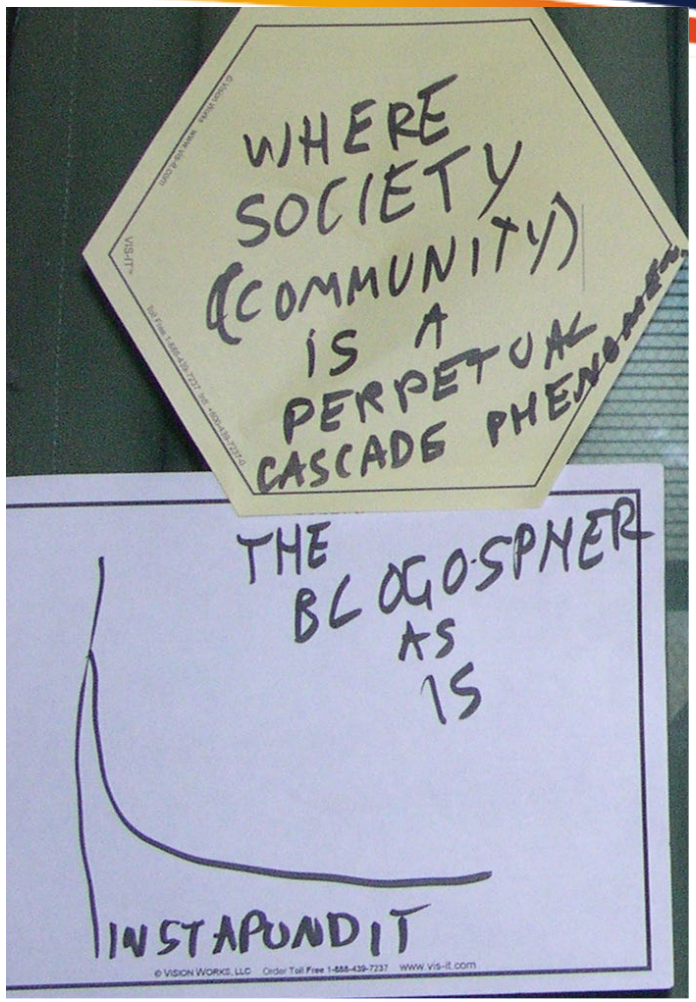
http://www.downes.ca/files/widercontext.ppt

Two Modes of Cognition



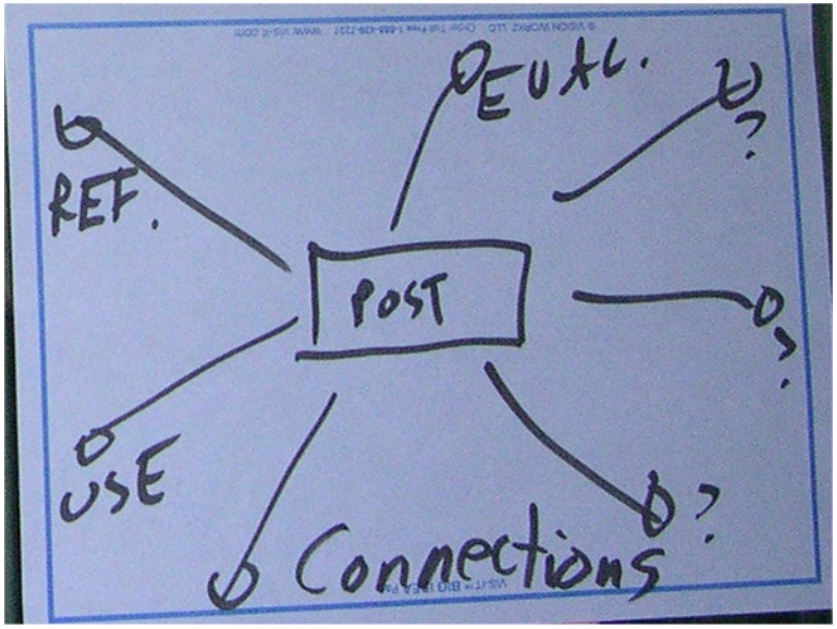
Words as Attractors

- When we use *words* to define concepts, the word begins to *attact* meanings…
- Example: what is a geek?
- When we use the big spike to define meaning, the big spike begins to *attract* meanings…
- Example: what is a conservative? A liberal?



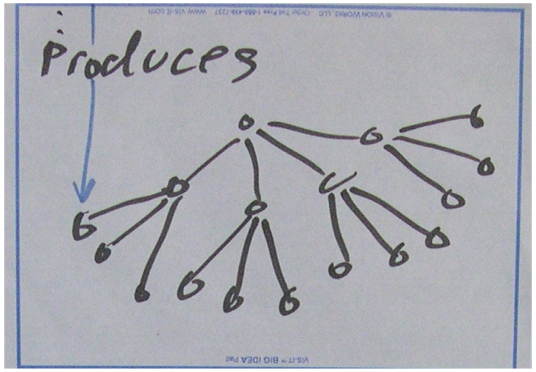
Meaning as Use

• The meaning of a (word, concept, community) is not inherent in the (word, concept, community) but in the context in which it occurs



The Relation Between Meaning and Networks

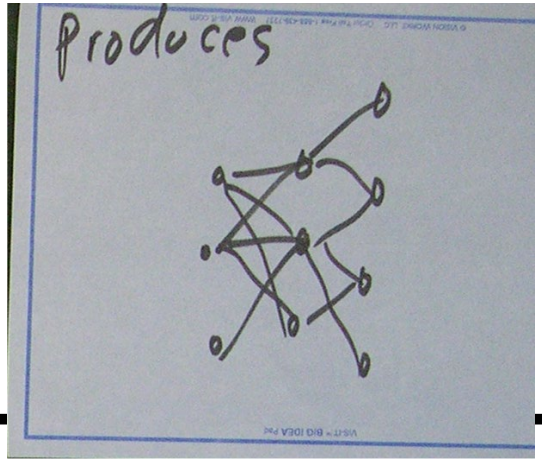
Inherent:



Meaning as derivative …

-- the community is a reflection of its leading member

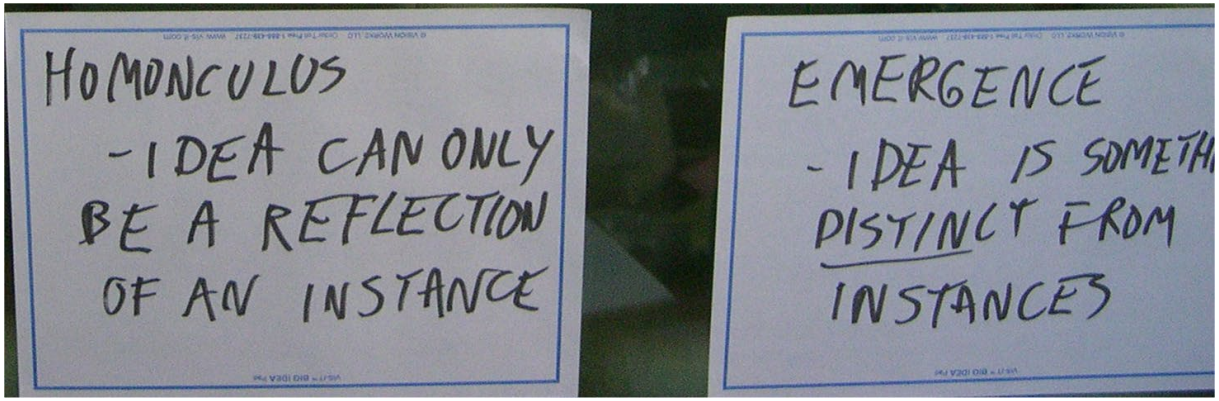
Distributed:

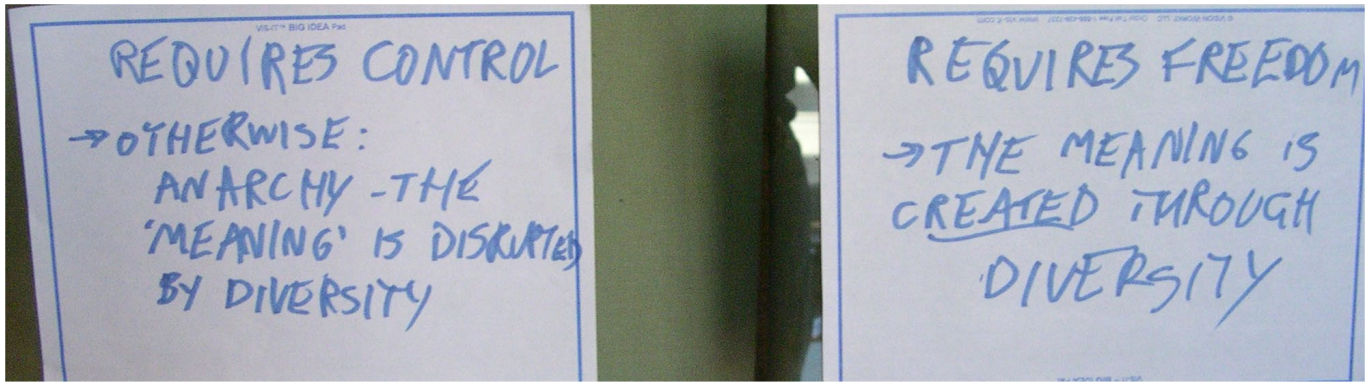


Meaning as emergent …

-- the community is an expression of the connections among the members

Why Does This Matter?





4. Distributed Network Semantics

• Online learning is at the cusp of a transformation that ought as well to inform social networking

• The transition from a centralized, institution-based system depending on a top-down structure and rigid standards

• To a decentralized, grassroots system of creation and sharing based on informal and ad hoc standards.

Common Frameworks

• The received wisdom: “To increase the sustainability of portal projects there is a need to 'work towards establishing common frameworks that will enable applications and services, from different sources, to work together.”

http://ci-journal.net/viewarticle.php?id=13&layout=html

• Examples: Learning Object Metadata, Learning Design, E-Learning Framework

Educational 'Communities'

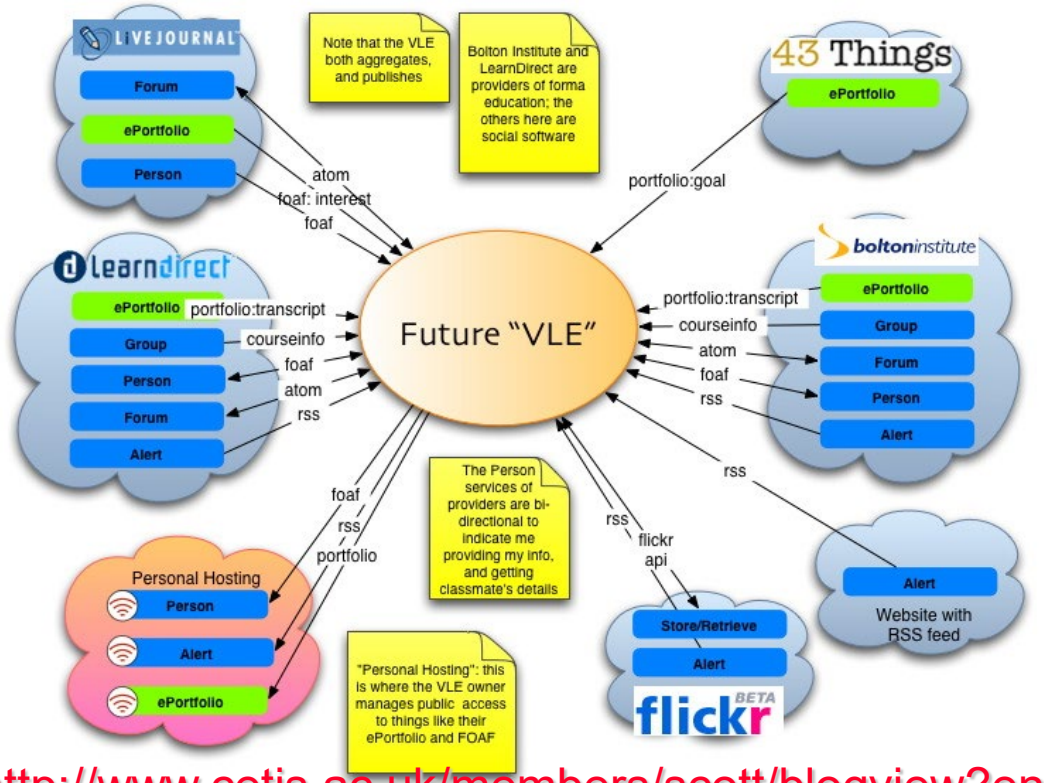
- This is 'community' as defined in the educational works:
  - Subjects defined as nice neat trees of topics
  - People organized into schools, classes
  - The presentation of meaning 'top down'; community defined by conformance
- Ripe for abuse – propaganda, marketing – astroturf, 43 things, Raging Cow, the Lincoln Fry, WSJ Opinion

http://dangillmor.typepad.com/dan_gillmor_on_grassroots/2005/02/combattingnontr.html

http://www.downes.ca/cgi-bin/website/view.cgi?dbs=Article&key=1097292310

http://www.ojr.org/ojr/stories/050217lasica/

4. Future Learning Environments



- A 'Relation-Making' system
- The meaning is in the commections
- The locus of control is in the user

http://www.cetis.ac.uk/members/scott/blogview?entry=20050125170206

A Theory of Community

- a system defined by three major components:
  - a means of organizing input and experience
  - a mechanism for putting that experience into context,
  - a means of creation, of becoming part of someone else's experience
- The idea here is that community is defined by the *relations between its members*, not some inherent property or quality – defined semantically, not syntactically

"People don't exist in environments, they exist in themselves and their semilattice-esque relationships with other actors (communities, individuals, spaces, inanimate objects...)."

James Farmer http://incsub.org/blog/?p=250

"Experience has long been considered the best teacher of knowledge. Since we cannot experience everything, other people's experiences, and hence other people, become the surrogate for knowledge. 'I store my knowledge in my friends' is an axiom for collecting knowledge through collecting people (undated)."

Karen Stephenson
http://www.elearnspace.org/Articles/connectivism.htm

Organizing Experience

• Simply blasting a million learning objects - or blog posts - at someone creates nothing but noise – reflections of the original source (the big spike) with no reflection of community.

• What must happen in the ether is what happens in nature: coherent bits of information self-organize into coherent clusters of related phenomena - a mechanism of emergentism

Filtering

• Cut this out and paste it to your wall: it's easier to filter for what you do want than what you don't.

http://kairosnews.org/node/4152

• *Push media* (meaning coming from the big spike – or the most persistent spammer) versus *Pull Media* – meaning as derived from your own set of interests and needs

How to Filter

• Keywords? Content? → Simply leaves you as a sucker for keyword spamming, content spamming … the big spike

• Filtering is best accomplished by paying attention to the *meaning* of the resource … where the meaning is the *context* in which the post occurs

• A community therfore = that network of relations through which you would allow content of a certain sort to become a part of your experience

The Semantic Social Network

- The idea writ simple: connecting resource metadata with author metadata
- Author metadata includes, say, FOAF – a list of the people *they* like or *they* trust
- Filter: example: find all resources on subject x written by / linked to by people who are friends of the person who wrote resource y
- But of course, this is but one dimension…

http://www.downes.ca/cgi-bin/website/view.cgi?dbs=Article&key=1076791198

Coding The Semantic Social Network

```
<item>
   <link>http://like_a_guid.com</link>
   <dc:creator>http://myurl.ca/me.foaf</dc:creator>
</item>
```

In a sentence, here's what's wrong with predefined ontologies and taxonomies: "we use existing patterns to search the data, which can't turn up new patterns." In another, here's what's wrong with manual tagging: "his department generates 5 million new objects per month, too much for manual tagging." Now if you take these two points as given, as I do, then what follows? How would you approach metadata and design?

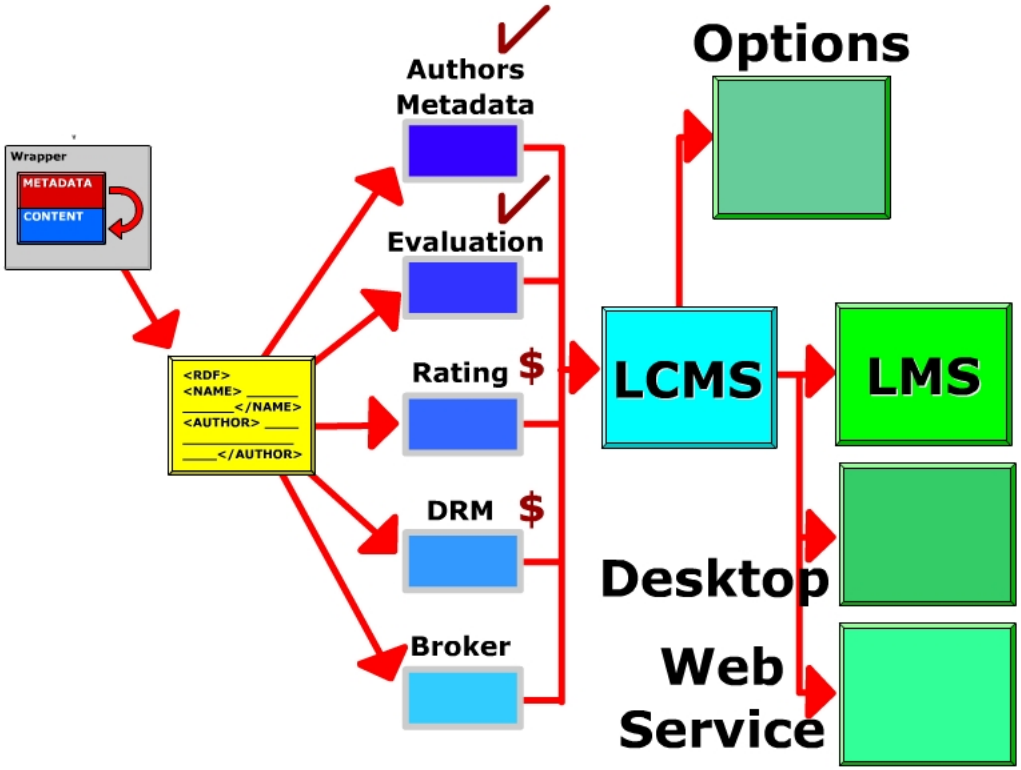
http://www.hyperorg.com/blogger/mtarchive/003676.html

Third Party Metadata

- Is metadata about a resource but not created by the author of the resource…
- Includes: links, references, ratings, annotation, classification, context of use…
- Is attached both to the resource (and hence the resource author) but also the *commentator*
- Creates a *multi-dimensional* semantic social network…

http://www.downes.ca/files/resource_profiles.htm

Using TPM to Organize Learning



http://www.downes.ca/files/Toward.ppt

Coding Third Party Metadata

```
<item>
  <link>http://like_a_guid.com</link>
  <ssn:commentary>
    <dc:contributor date="2003-01-15>John Smith</dc:contributor>
    <ssn:comment>I recommend…</ssn:comment>
  </ssn:ssn:commentary>
</item>
```

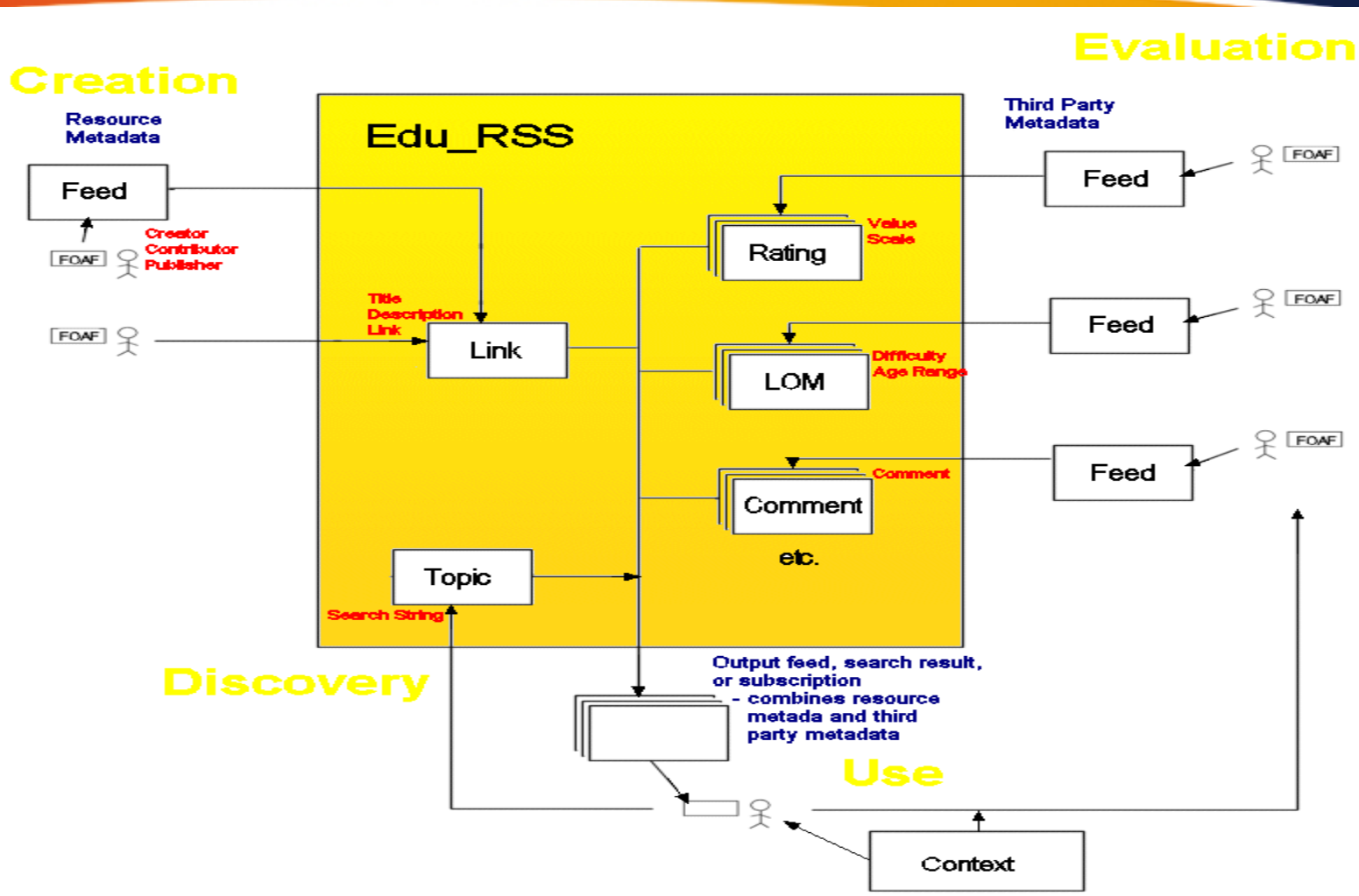
http://www.downes.ca/dwiki/?id=RSS_LOM

(Userid: Anymouse Password: anymouse)

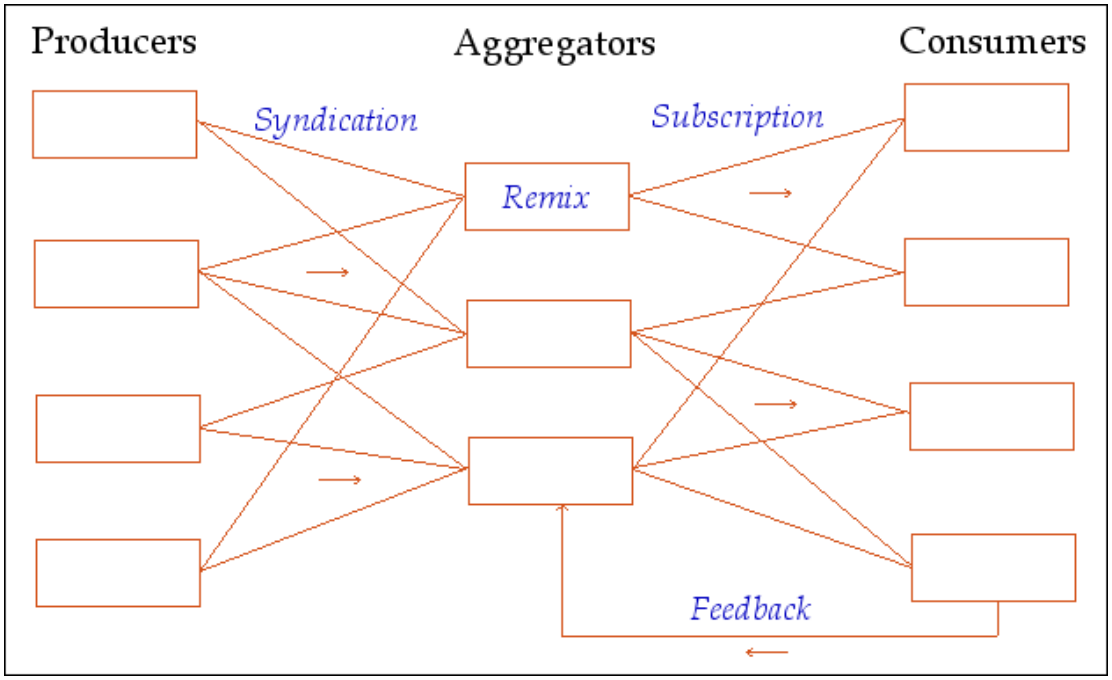
The Self Organizing Network

- Self-organization occurs when - and only when:
- *patterns of organization* are created and passed on, one person to the next.
- The process of creation is at one moment the process of internalizing recognized order
- and of passing this order on as experience to be had by the next person.

http://www.pkp.ubc.ca/ojs/


Evaluation
Creation
Resource Metadata
Feed
FOAF
Creator
Contributor
Publisher
FOAF
Edu_RSS
Title
Description
Link
Link
Rating
Value Scale
LOM
Difficulty
Age Range
Comment
Comment
etc.
Topic
Search String
Third Party Metadata
Feed
FOAF
Feed
FOAF
Feed
FOAF
Discovery
Output feed, search result, or subscription
- combines resource metada and third party metadata
Use
Context

The Network is the Search



http://www.downes.ca/files/acadia.ppt

The Community is the Network

- No centralized 'place' that constitutes the community
- People, resources – distributed, self-centered (like Minsky's social agents)
- Self-selected relations using a variety of contextual information (third party metadata) to establish meaning
- Meaning *emerges* from the community, rather than *defining* the community

http://www.downes.ca/cgi-bin/edurss02.cgi