



Technology and Communication: Education in the Digital Era

Stephen Downes
Córdoba, Argentina, April 29, 2010

The three Ls: language, logic and learning



Connectivism: Engagement

- There is no curriculum, no theory, no body of knowledge
 - (or, more accurately, the curriculum is the McGuffin)
- The product is not the knowledge, it is the *learner*
- It's not that there's nothing to learn, it's that it's *complex* and needs to be navigated... not memorized



First Theme

active engagement, not passive observation...

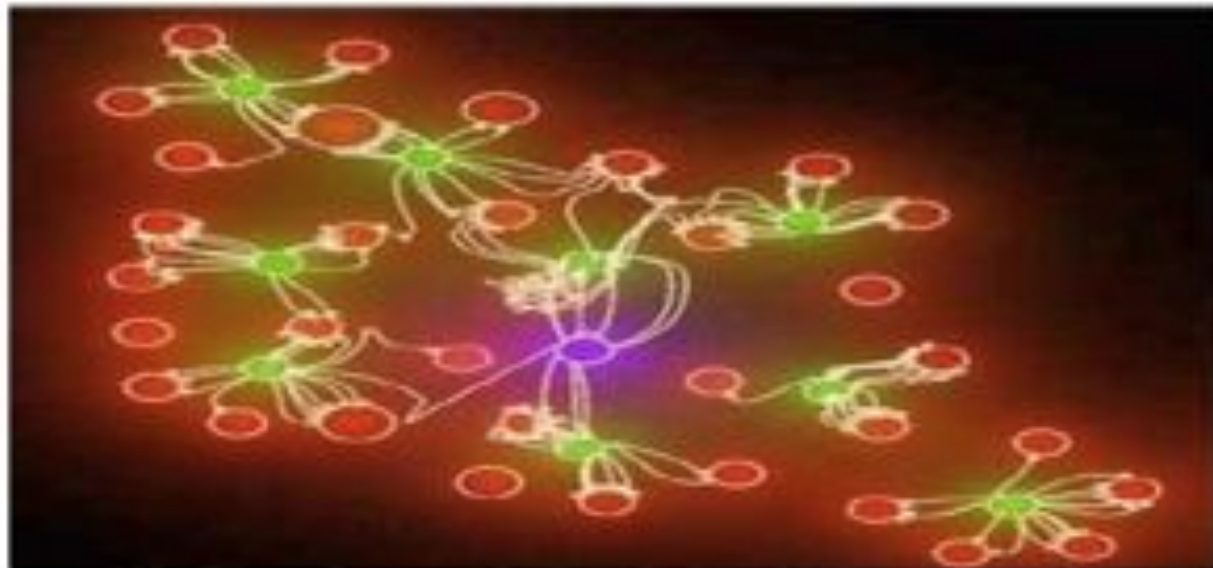
- No presumption of commonality, translation...
- No presumption of a defined community of practice

http://carbon.cudenver.edu/~mryder/itc_data/ant_dff.html

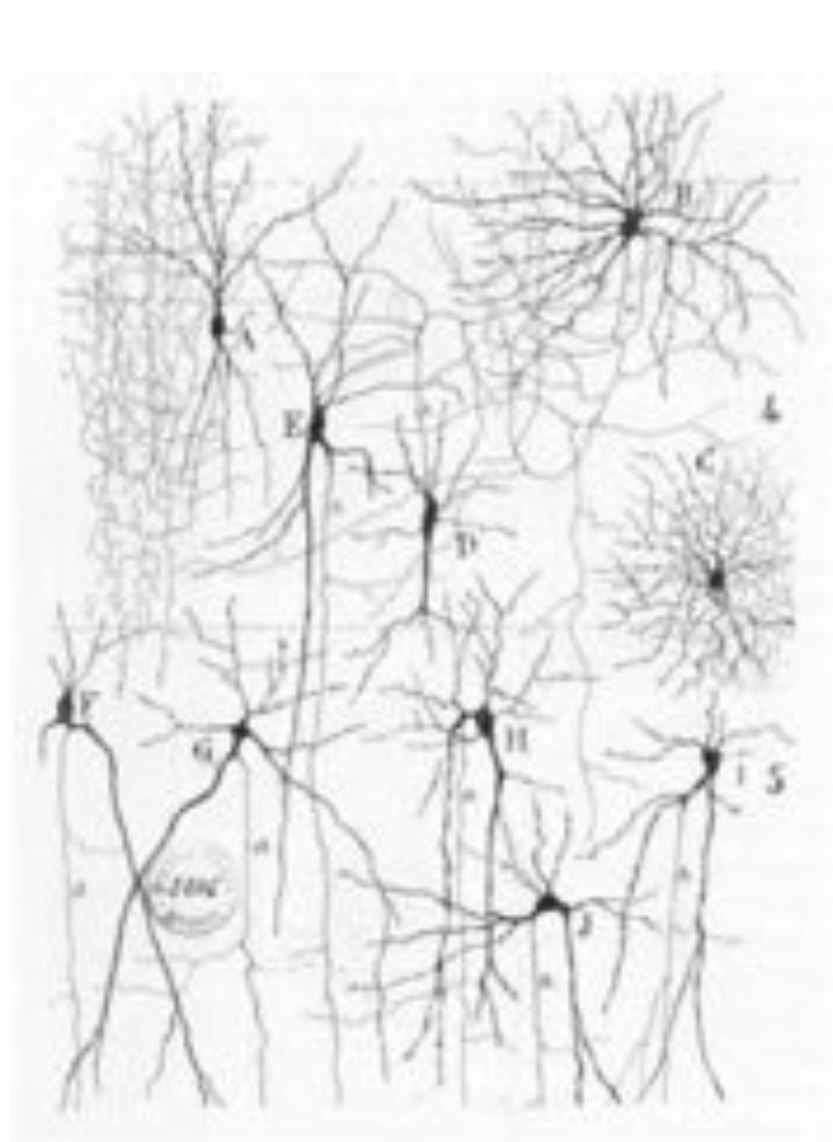
<http://www.emtech.net/actionresearch.htm>

Free Learning

- The *picture* of learning you should have is one of a large set of connected nodes (like the neurons in a brain)



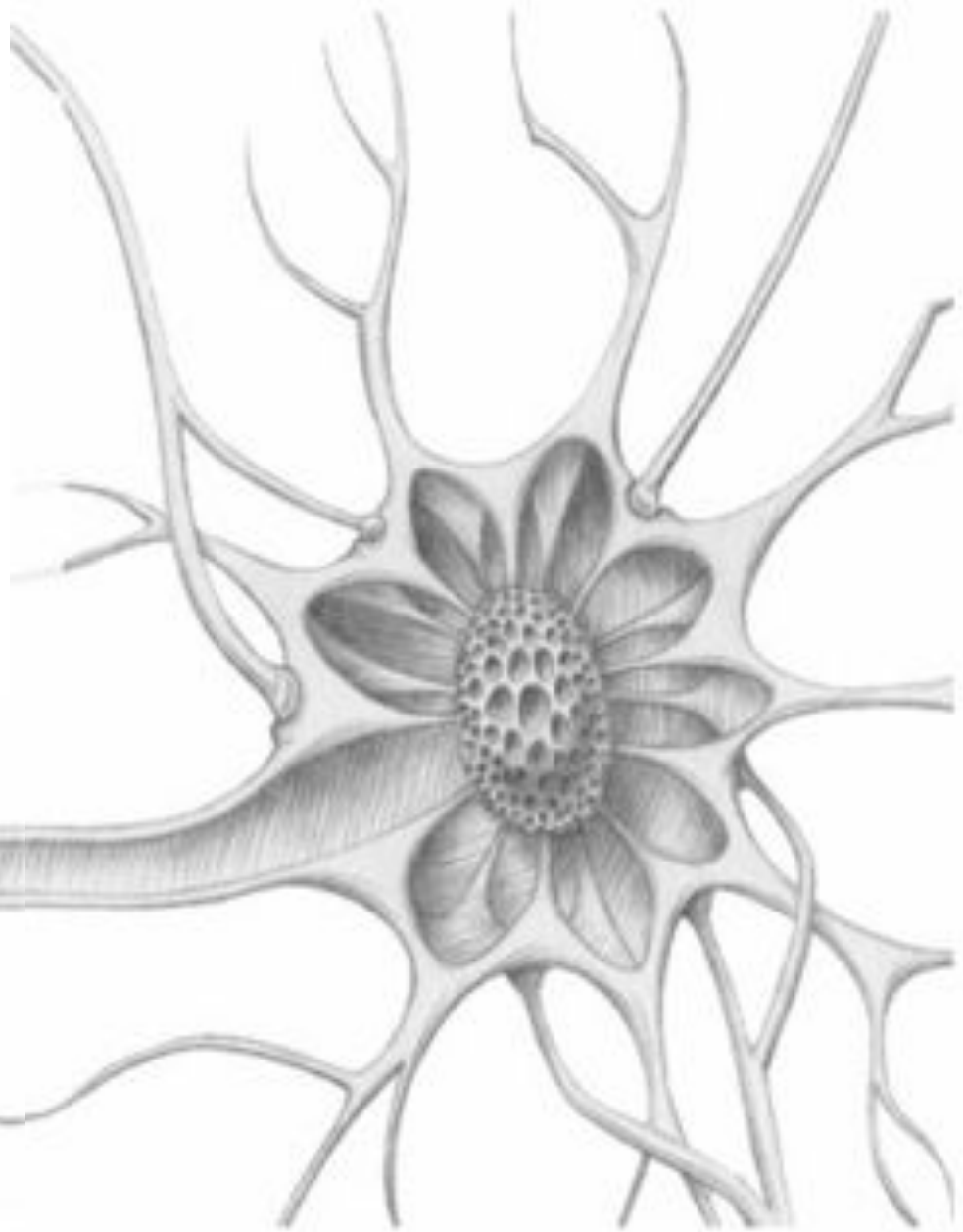
- Teachers are nodes, students are nodes
- Both teaching and learning consists of sending and receiving communications to other nodes



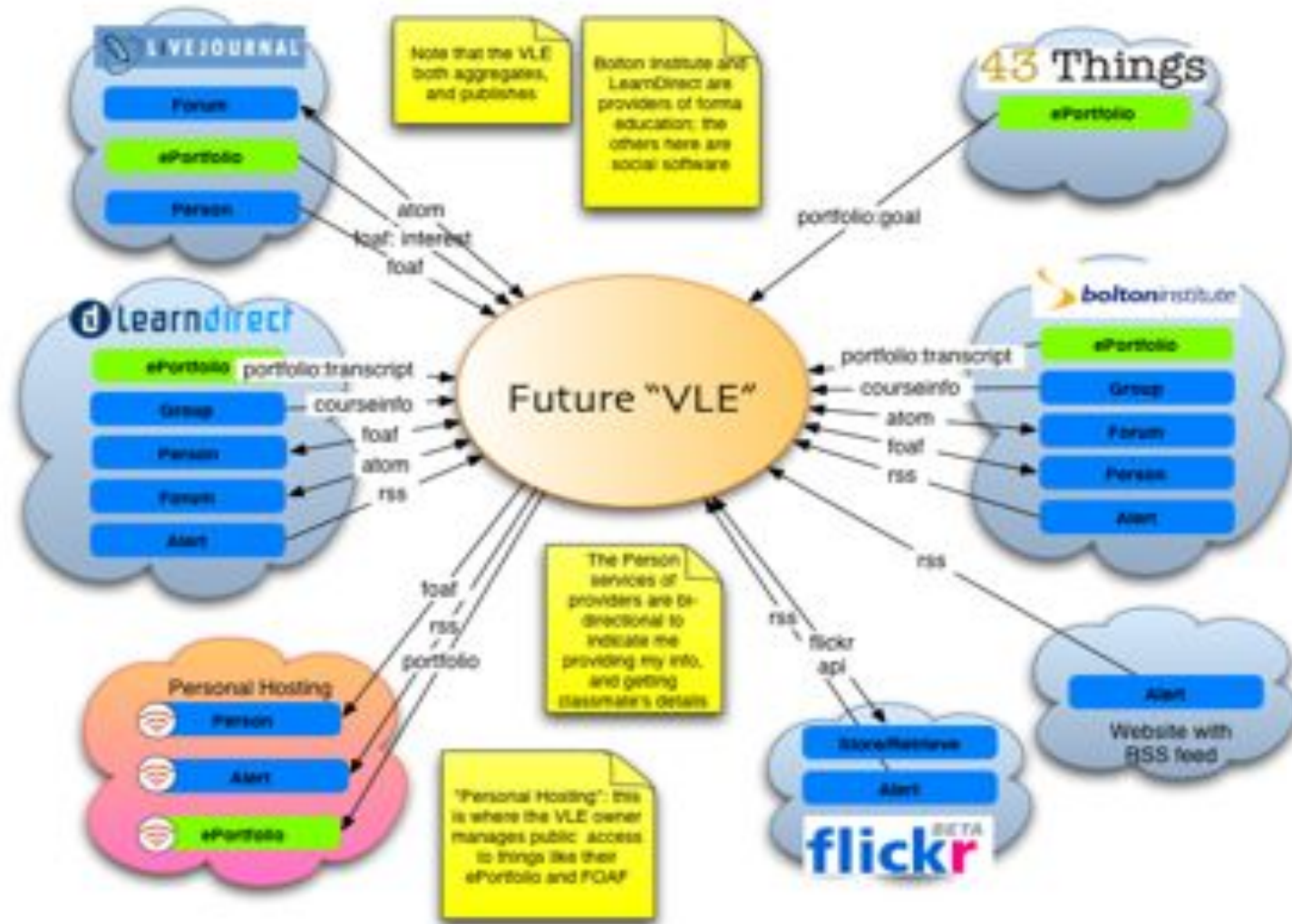
Aggregate
Remix
Repurpose
Feed Forward



ARRFF



The Idea of the PLE...



Plex Personal Learning Environment Example

The screenshot displays the Plex Personal Learning Environment interface. It features a menu bar (File, Edit, Tools, Window, Help) and a toolbar with various icons. The main area is divided into several panels:

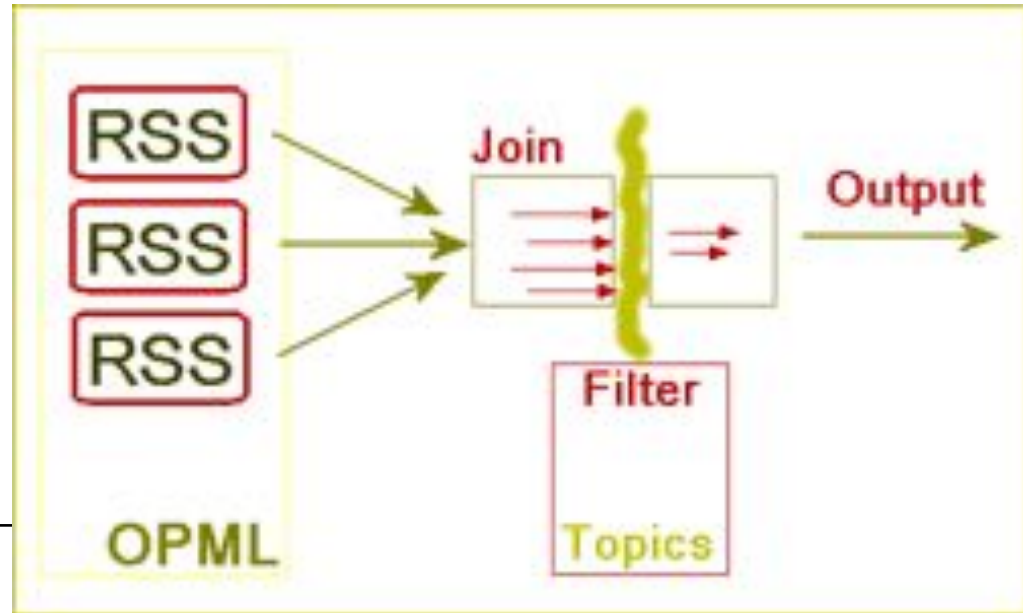
- Opportunities Explorer:** A tree view showing a hierarchy of opportunities, with "learn three chord rock guitar" selected.
- Opportunity Viewer:** A detailed view of the selected opportunity, showing:
 - Title: learn three chord rock guitar
 - Number of registered people: 1
 - Provider: 43 Things
 - Location: <http://www.43things.com/thing> (with a "Browse" button)
- Search Results:** A list of search results for "learn three chord rock guitar". The results are filtered by "43 Things" and include a "Filter results by:" field. The results table is as follows:

Title	Provider	Location
Learn to play the guitar like no one has ev...	43 Things	http://www.43things.com/thing
learn to play acoustic guitar, also get a gu...	43 Things	http://www.43things.com/thing
Learn to play the guitar guitar properly an...	43 Things	http://www.43things.com/thing
meet Midly and just chill out with them an...	43 Things	http://www.43things.com/thing
Create a music room downstairs, with a dr...	43 Things	http://www.43things.com/thing
I want to keep playing guitar and play infr...	43 Things	http://www.43things.com/thing
I want to learn to play the guitar and then...	43 Things	http://www.43things.com/thing
Sing and play bass guitar at the same tim...	43 Things	http://www.43things.com/thing
- learn three chord rock guitar on 43 Things:** A browser window showing the details of the selected opportunity on the 43 Things website. The address bar shows <http://www.43things.com/things/view/161919>. The page content includes a navigation bar (Home, Zeitgeist, Log In, Search) and a message: "1 person wants to do this..."

<http://reload.ces.strath.ac.uk/plex/>

Collecting and Filtering RSS

<http://www.downes.ca/mygluframe.htm>



MyGlu

By Stephen Downes

[About](#)

```
Force: 1
-----
Harvesting http://del.icio.us/rss/Downes
Feedfile is: myglu/feedcache/del.icio.us_rss_Downes
No content. Harvesting from source.
URL: http://del.icio.us/rss/Downes
Parsing Feed=HASH(0x9f0f10c)
-----
Harvesting http://www.downes.ca/news/OLDaily.xml
Feedfile is: myglu/feedcache/www.downes.ca_news_OLDaily.xml
No content. Harvesting from source.
URL: http://www.downes.ca/news/OLDaily.xml
Parsing Feed=HASH(0x9f0ef8c)
```

RSS Writr

The screenshot shows the RSS Writr web editor interface. At the top, there is a search bar with a "Start Search" button. Below the search bar are navigation links: [Change Theme], Stephen's Web, [OL Daily], [Archives], [Threads], [Best Of], [Search], and [Options]. The main content area is divided into two columns. The left column contains a large heading "Welcome to RSS Writr" and three paragraphs of instructional text. The right column contains a "Title:" input field, a rich text editor toolbar with buttons for Bold (B), Underline (U), Italic (I), Bulleted List, Numbered List, Indent Left, Indent Right, Undo, and Redo, and a text area containing the word "Hello". Below the text area is a "Content Sources" section with a dropdown menu currently showing "Stephen's MyGlu Test".

Start Search

[Change Theme]
Stephen's Web
[OL Daily] [Archives] [Threads] [Best Of] [Search] [Options]

Welcome to RSS Writr

Select a content source from the list (see the panel at the lower right hand side of the page).

When you see an item that interests you, drag it into the editing area (at right). You can drag multiple items into the editor.

When you have finished editing, save your new post to your blog.

Title:

B **U** **I** Shift+Enter for single line spacing

Hello

Content Sources

Stephen's MyGlu Test

<http://www.downes.ca/editor/writr.htm>

FeedForward



<http://blogs.cetis.ac.uk/feedforward/>

Second Theme



Learning... vs the right learning

<http://en.wikipedia.org/wiki/Cynefin>

Understanding Interdependence

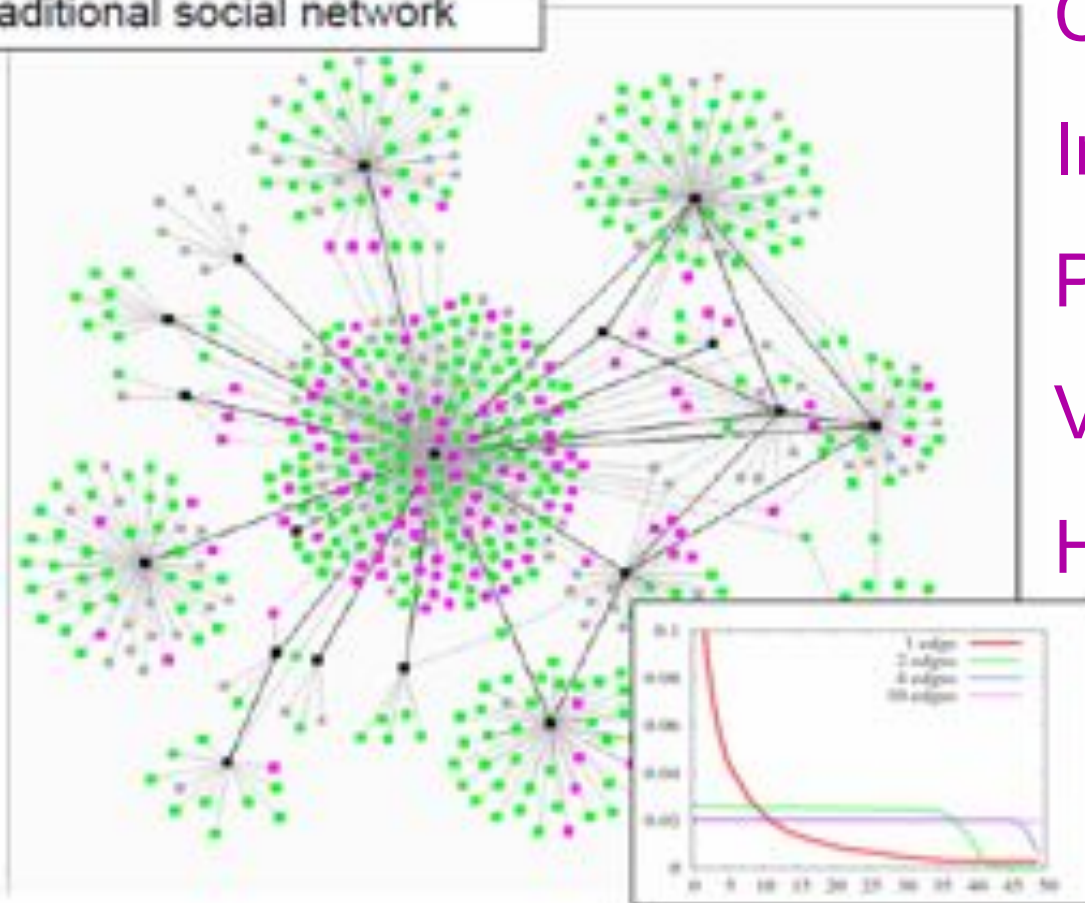


= no simple principles

= no simple cause & effect

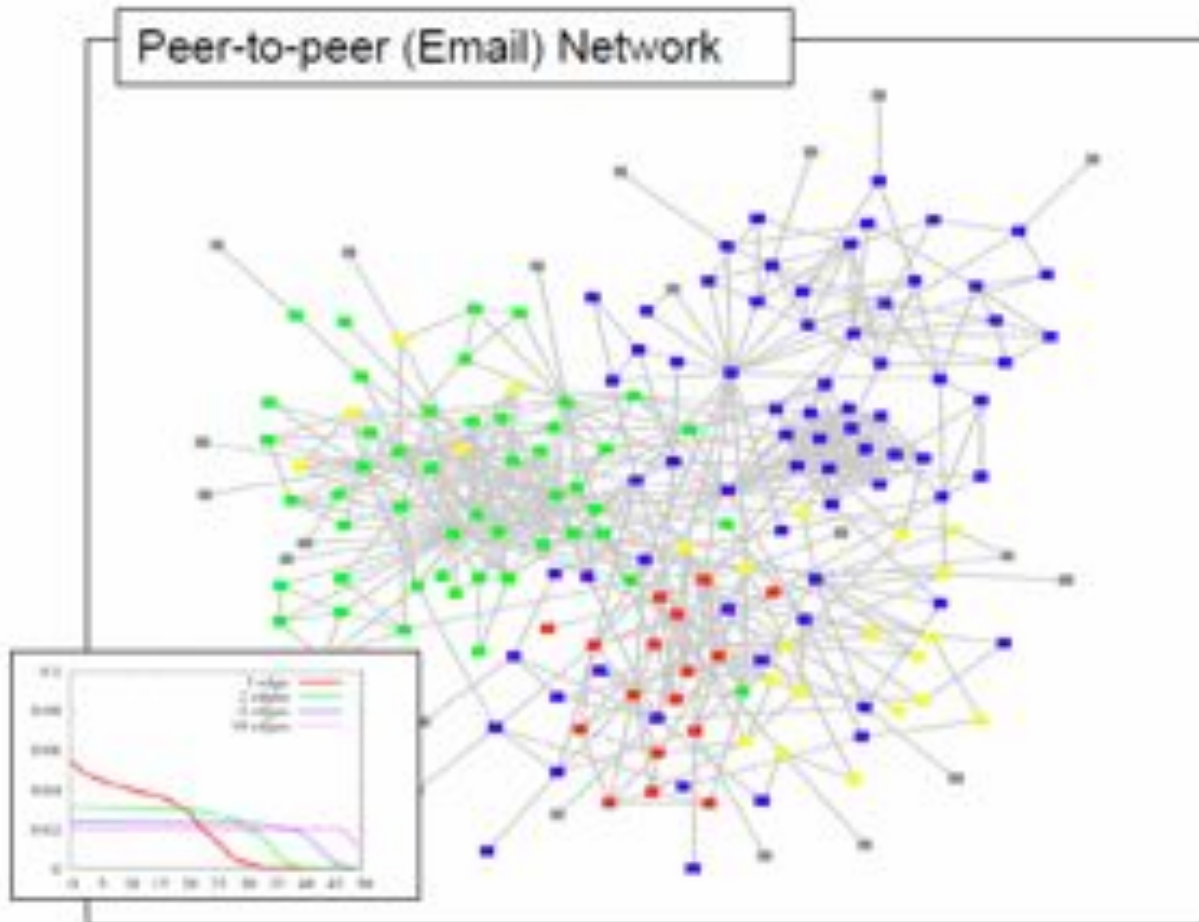
Network Structures - Tree

Traditional social network



Central
Influence
Power Law
Viral
Hierarchy

Network Structures - Mesh



Distributed
Discussion
Balanced
Reflective
Democracy

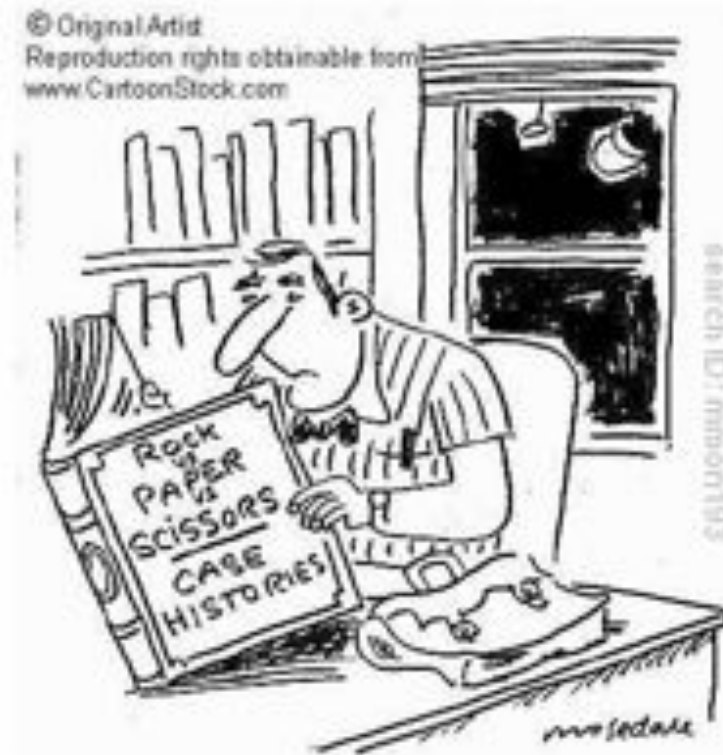
<http://www.daniel-lemire.com/fr/abstracts/DIVERSITY2008.html>

<http://www.mailchimp.com/blog/using-email-to-uncover-hidden-social-networks/>

Individualism vs Mutuality

Independent
variables vs
dependent
variables

eg. Rational decision
- vs role model



The myth of solitary autonomy

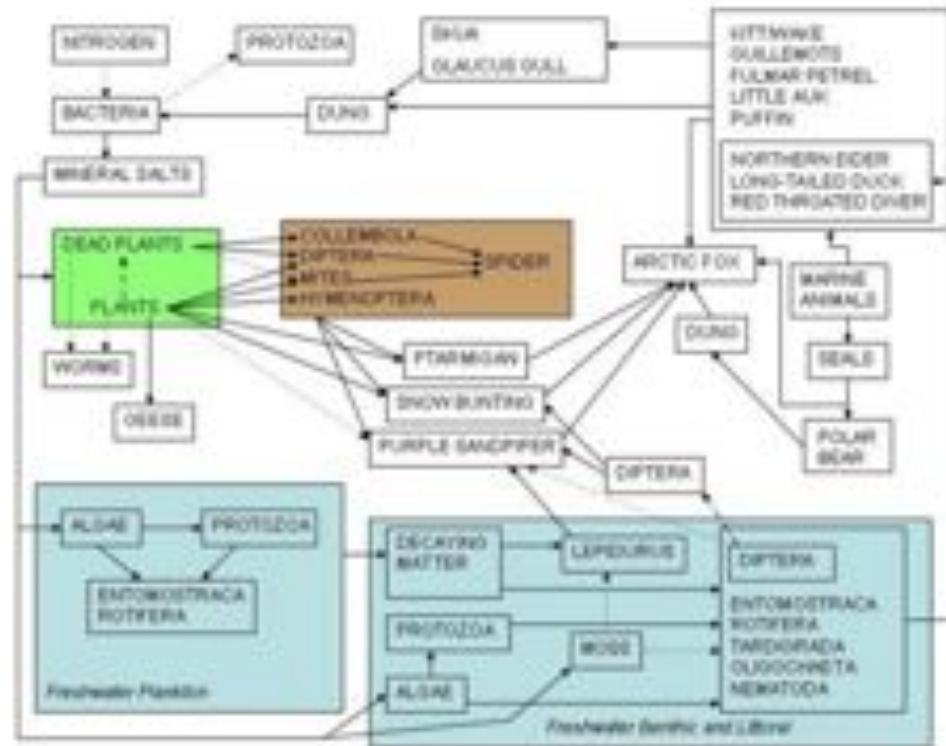
Third Theme: Connectivism

“At its heart, connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks.”

What Connectivism Is

<http://halfanhour.blogspot.com/2007/02/what-connectivism-is.html>

- Networks of interactions (aggregate, remix, repurpose, feed forward) – syndication



An ecology...

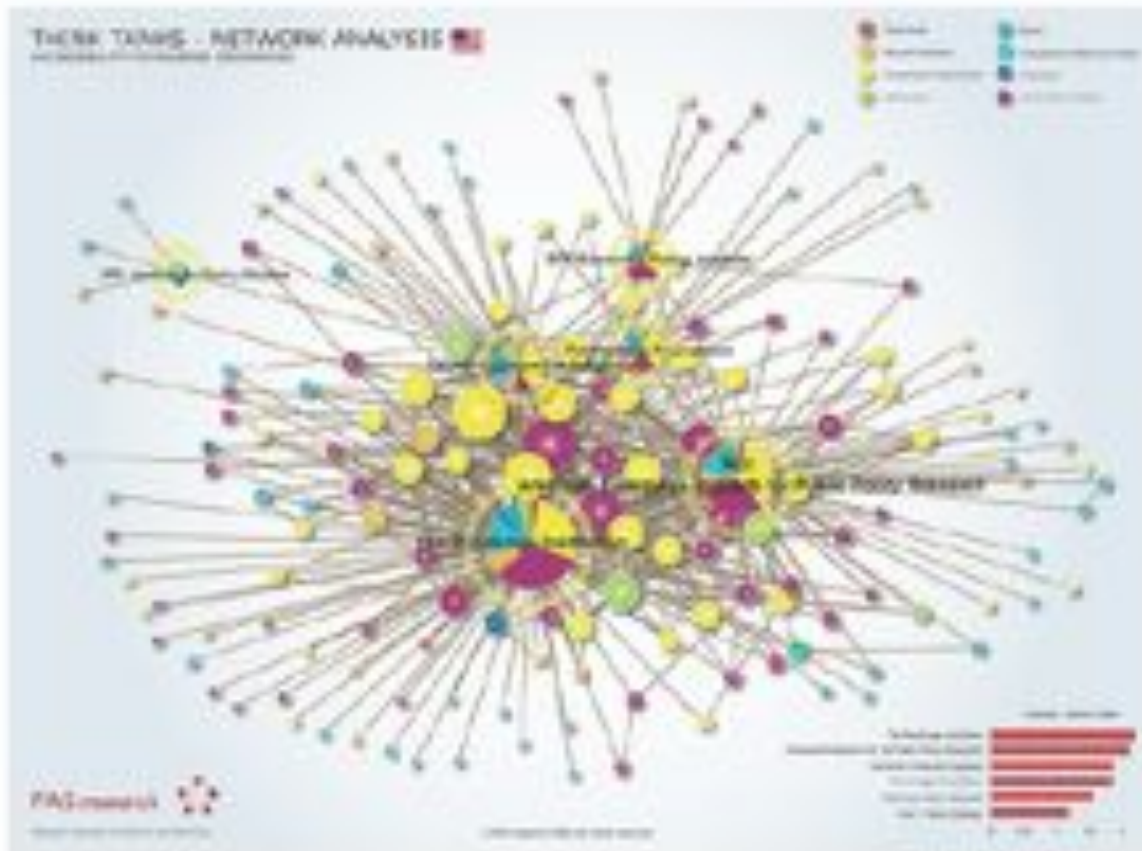
- The *personal* learning centre



Autonomy

http://blog.core-ed.net/derek/2006/11/more_on_mles_and_ples.html

- The Network is Diverse – multiple views, multiple technologies



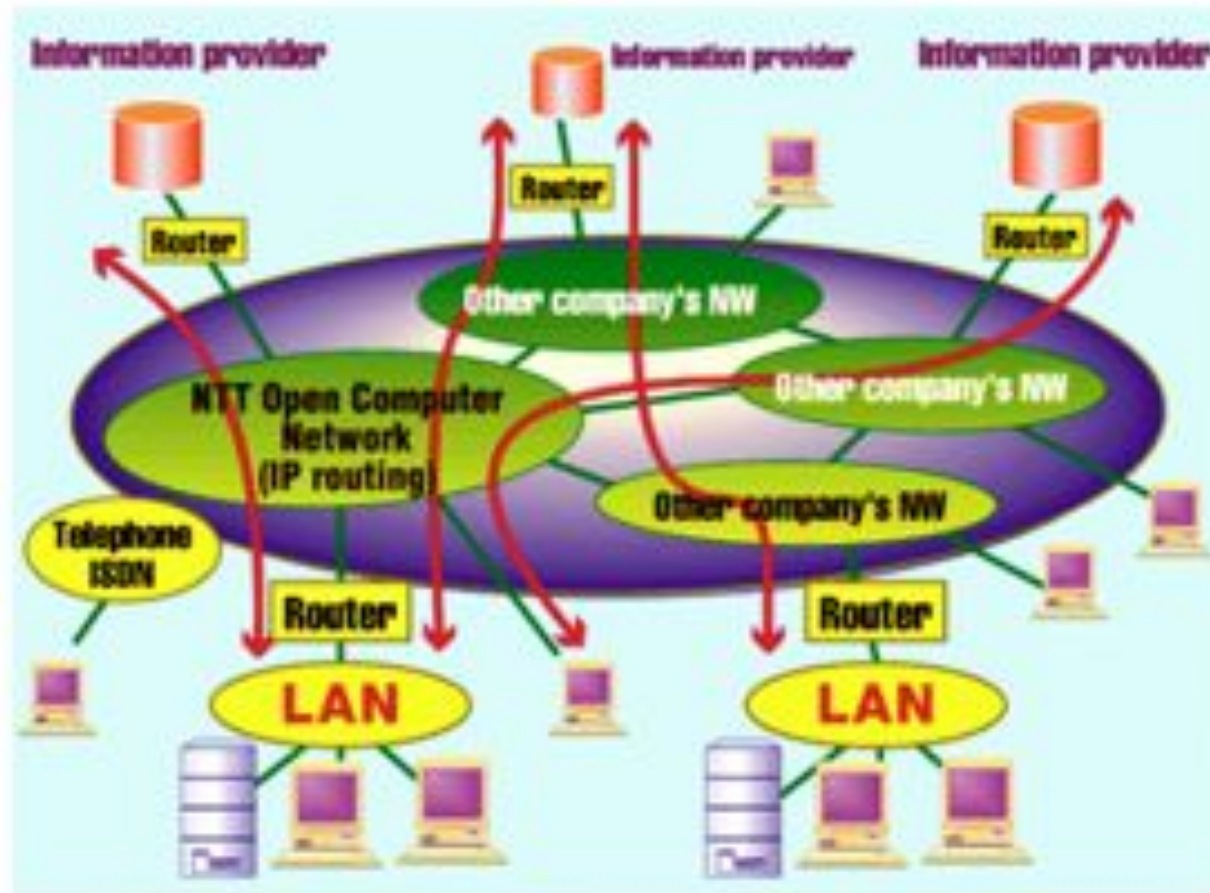
<http://flickr.com/photos/11242012@N07/1363575474>

- The Network is connected and interactive (*not* ‘integrated’) – small pieces, loosely joined



<http://www.biography.org.uk/real.htm>

- The Network is *open*



http://park.org/Japan/NTT/DM/html_f4/F4_10600_e.html

Stephen Downes

<http://www.downes.ca>

