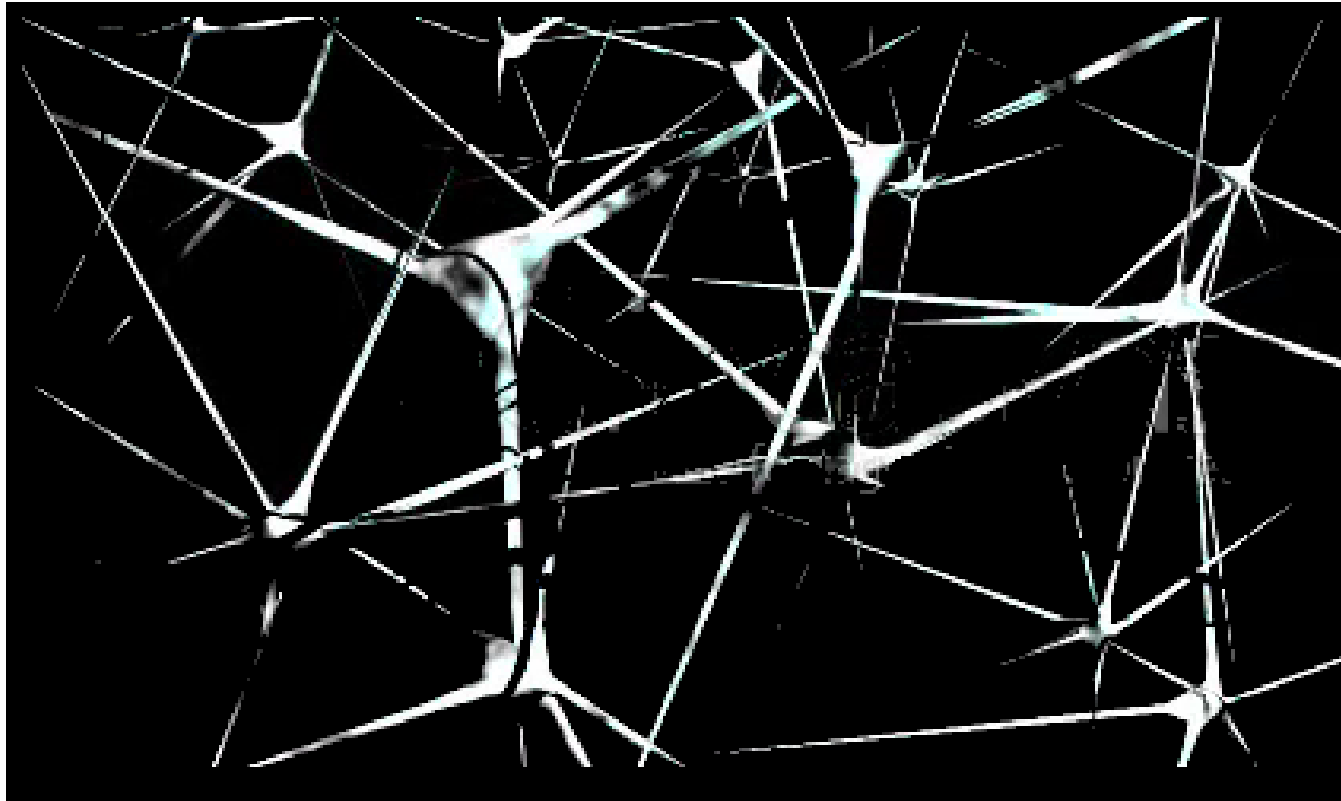


The Role of Open Educational Resources in Personal Learning

Stephen Downes
National Research
Council Canada
29 March 2011





<http://www.clipcanvas.com/video-footage/gfx-graphics-neural-network-human-7728.html>

- Learning and cognition happen in a network
- Networks need to be open in order to function

The Argument in One Slide



<http://www.youtube.com/watch?v=9sJUDx7iEJw>

- Freedom to run, to read, to share, to modify
- Perspectives on freedom, as holder, as searcher

Openness?



- Openness – standards, software, systems
- Openness – educational resources, courses, assessment

Openness in Education



<http://vimeo.com/17570724>

<http://www.adlnet.gov/>

- Learning Object Metadata <http://ltsc.ieee.org/wg12/> <http://www.imsglobal.org/metadata/> SCORM
- Learning Design, Common Cartridge, Tools Interop

Open Standards

an online **Course**

**Management
System**



<http://www.youtube.com/watch?v=WvCiv5KCbeE&fmt=22>

- Moodle <http://moodle.org/>
- Sakai, Elgg, Atutor, LAMS <http://www.schoolforge.net/>

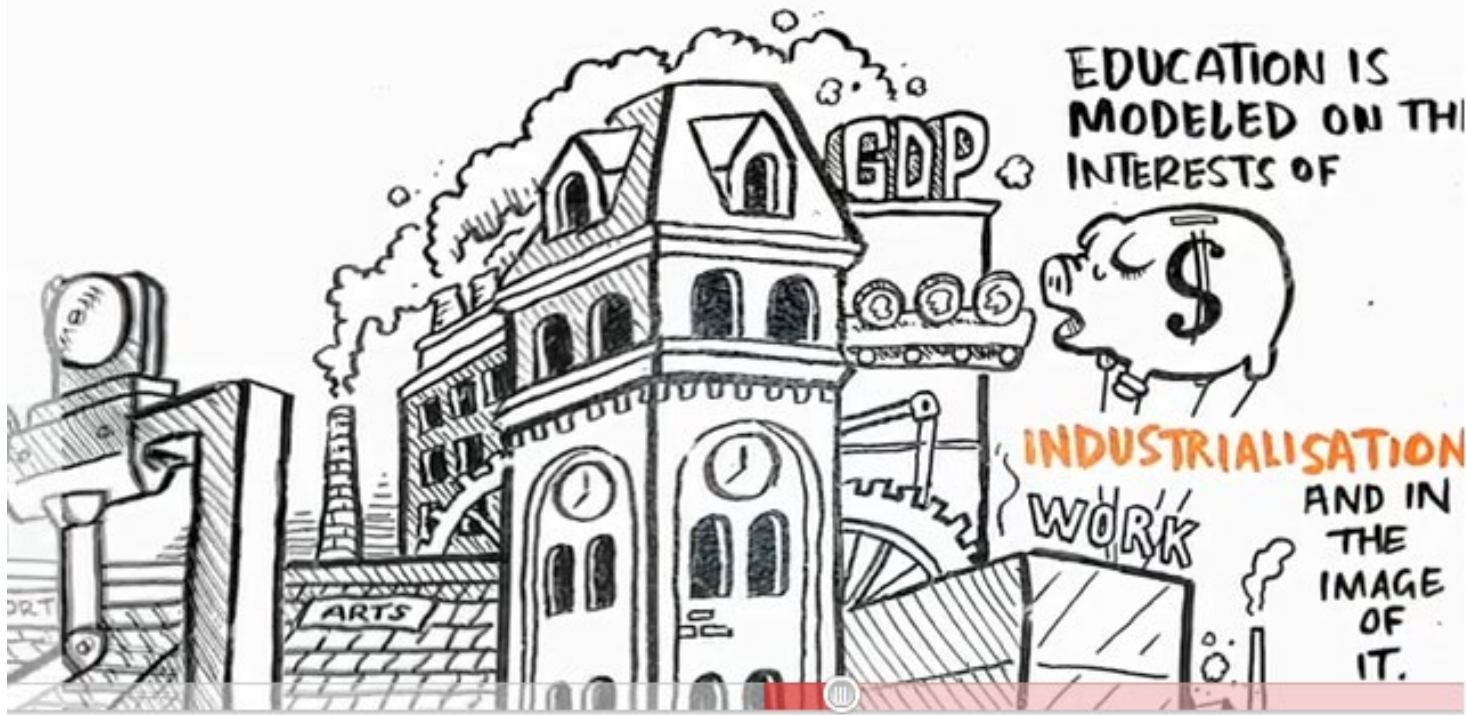
Open Source Software



<http://www.youtube.com/watch?v=hw5k98GV7po>

- Projects: OCW, Khan, MERLOT http://www.oergrapevine.org/OER_projects
<http://wiki.oercommons.org/mediawiki/index.php/Projects>
- Licensing: GFDL; CC by, SA, NC, ND <http://creativecommons.org/>

Open Educational Resources



<http://www.youtube.com/watch?v=zDZFcdGpL4U>

- Models: Endowment, Membership, Donations...
<http://ijello.org/Volume3/IJKLOv3p029-044Downes.pdf>
- Issues: Lock-in, high-bar, flooding, conversion
<http://www.downes.ca/post/7804>

Sustainability Issues

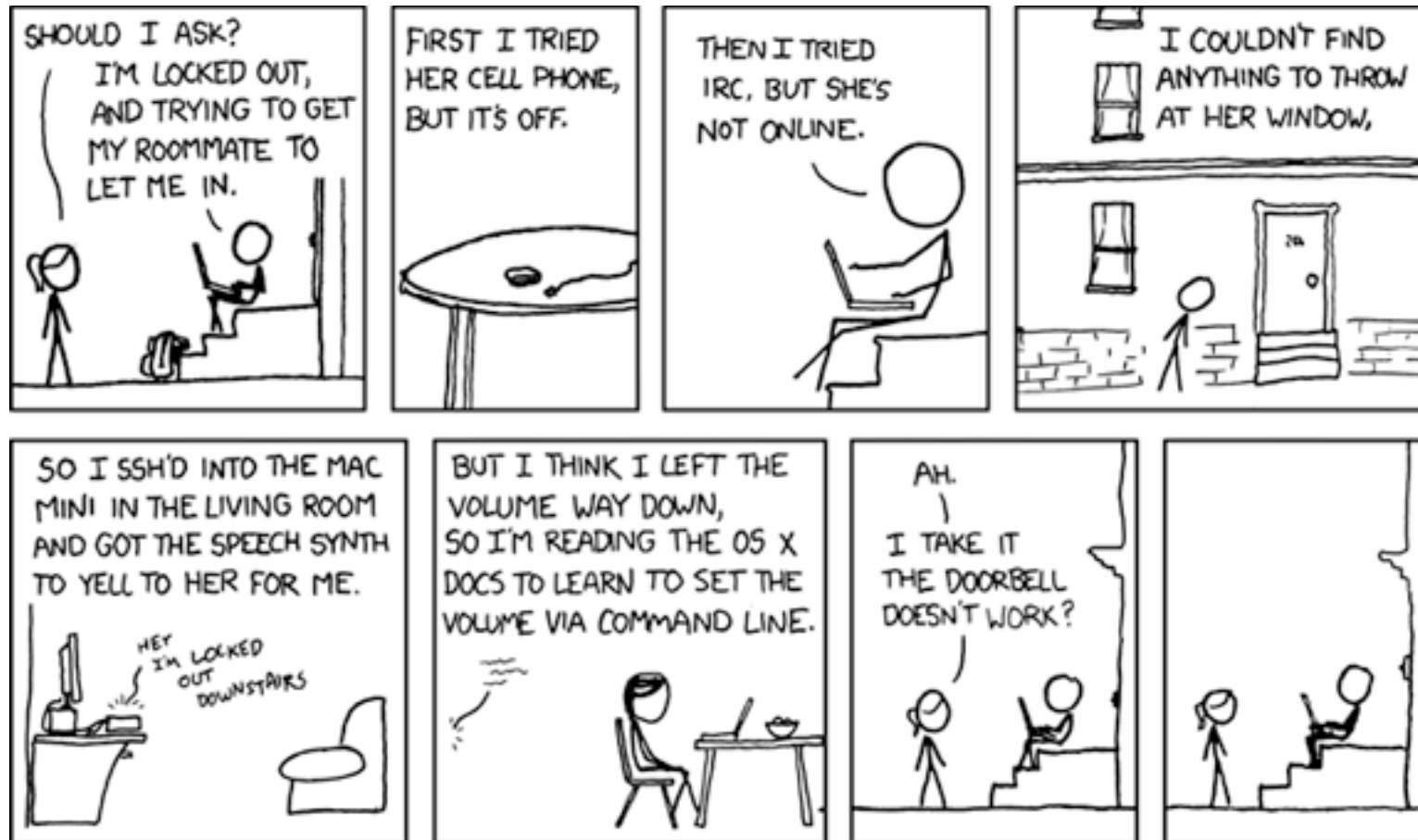
One thesis:

That new media constitute a vocabulary,
and then when people create artifacts,
they are, literally, “speaking in LOLcats”



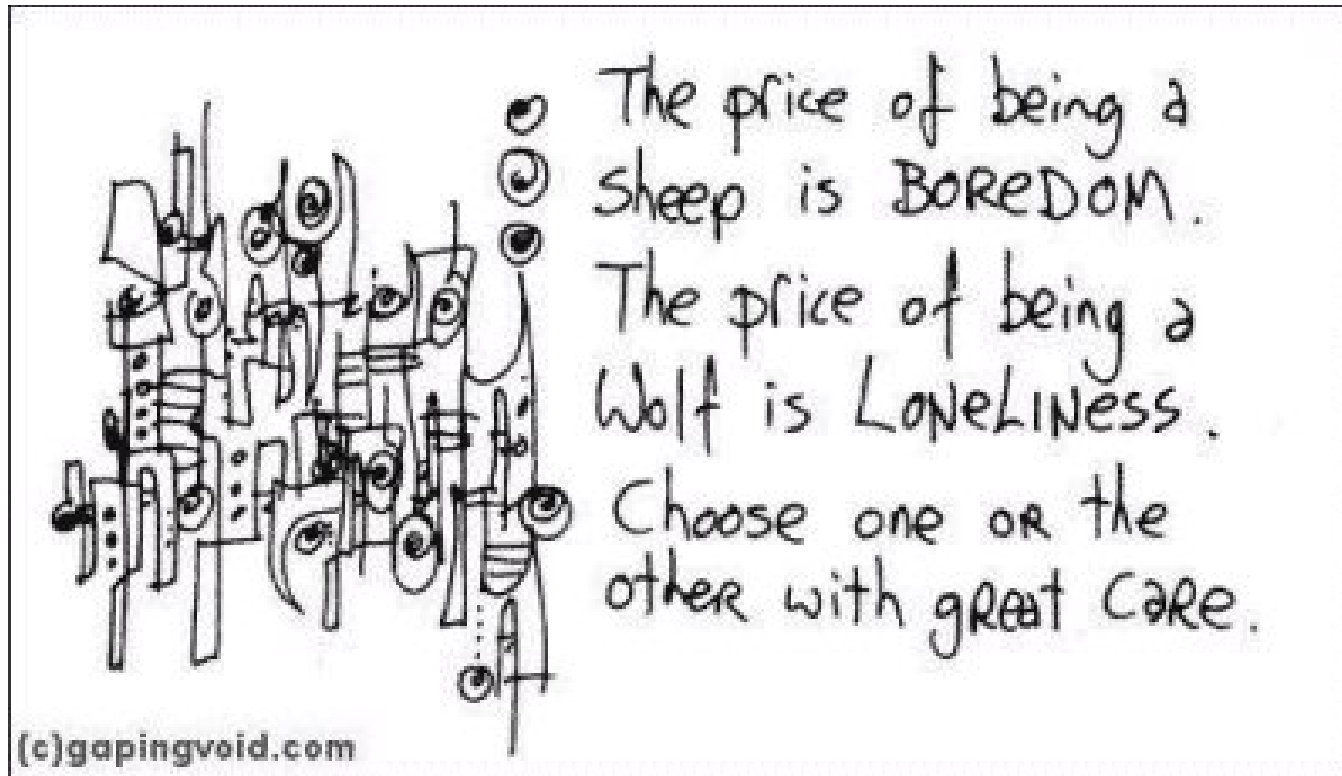
It's not just LOLCats, of course...

<http://www.flickr.com/photos/nobodyssweetheart/40898054> 61



What do you suppose the artist is saying?

<http://xkcd.com/530/>



What do you suppose this artist is saying?

<http://www.gapingvoid.com/>

<http://thefuturebuzz.com/2009/01/26/50-viral-images-part-two/>



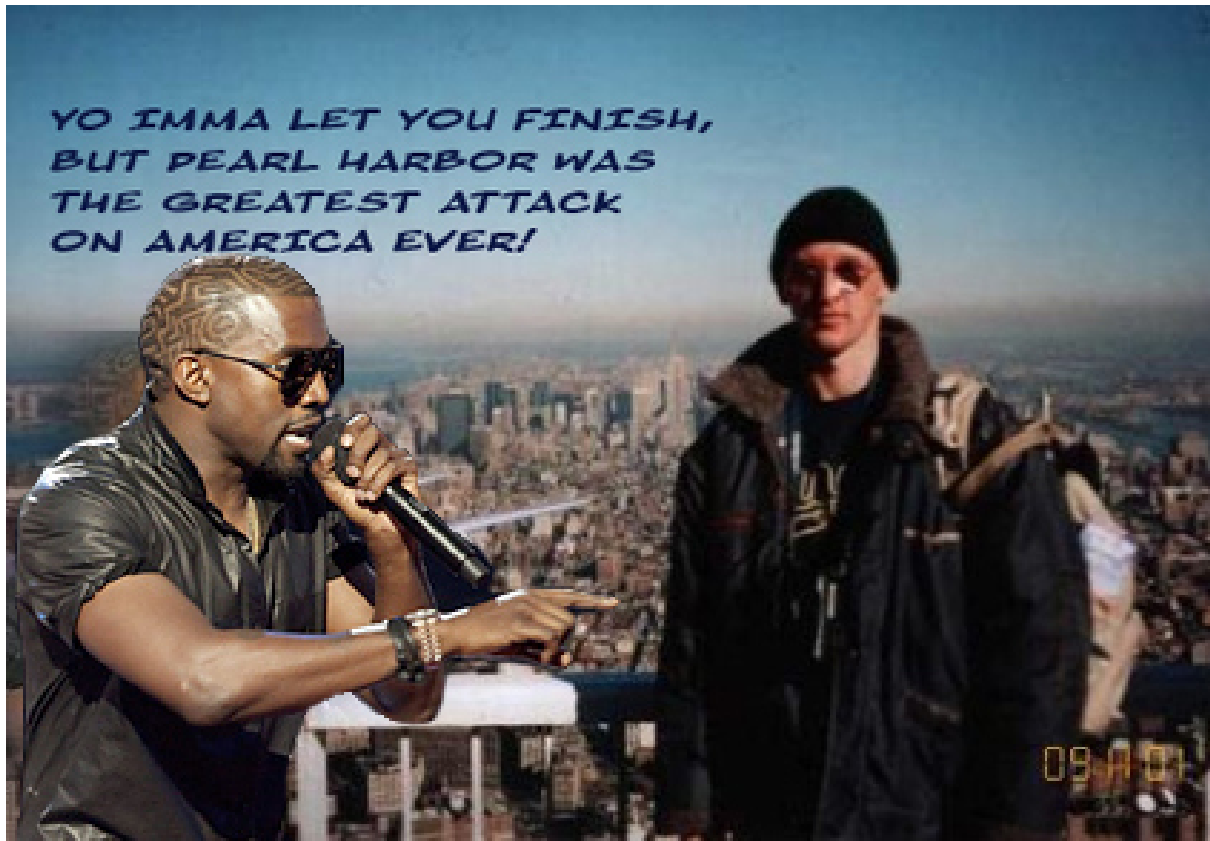
The Accidental Tourist...

<http://urbanlegends.about.com/library/blphoto-wtc.htm>



Iconic...

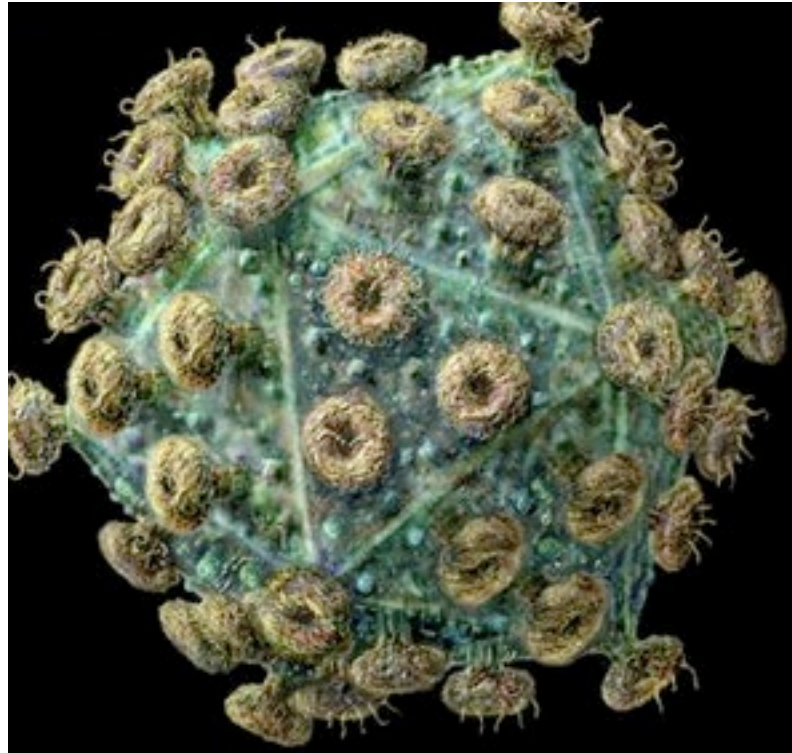
<http://urbanlegends.about.com/library/blphoto-wtc.htm>



YO IMMA LET YOU FINISH,
BUT PEARL HARBOR WAS
THE GREATEST ATTACK
ON AMERICA EVER!

Ironic...

<http://urbanlegends.about.com/library/blphoto-wtc.htm>



There are other languages...

<http://img166.imageshack.us/img166/3827/virusbignl0.jpg>



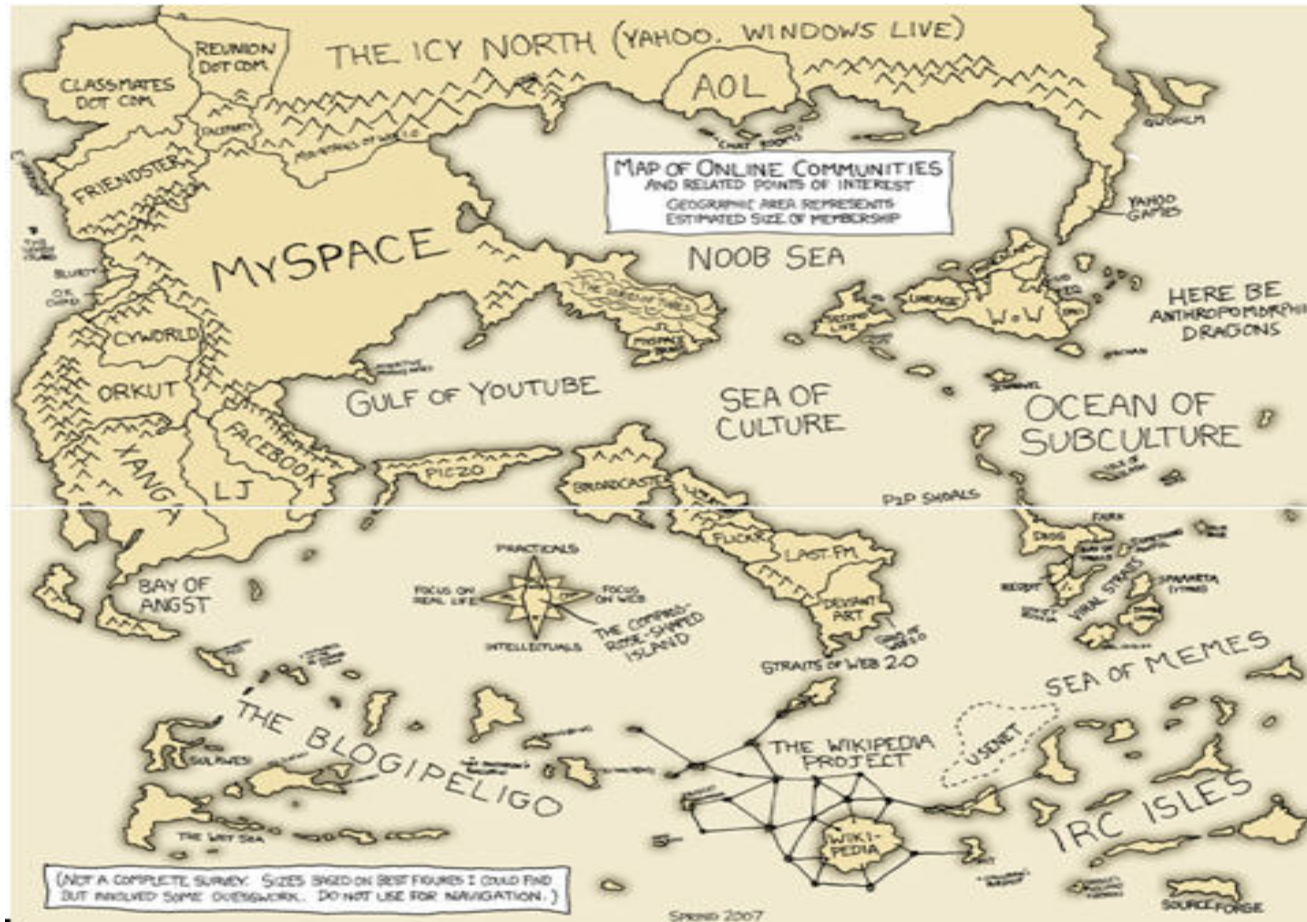
Body language, for example...

<http://forum.xcitefun.net/body-language-actions-do-speak-louder-than-words-t13371.html>



Clothing, uniforms, flags, drapes...

<http://www.armystrongstories.com/blogAssets/wayne-wall/12%20JUN%20Arab%20Clothing.jpg>



Maps, diagrams, graphics...

<http://www.armystrongstories.com/blogAssets/wayne-wall/12%20JUN%20Arab%20Clothing.jpg>

The same sort of thing underlies
inference and belief



We understand the future in the same way we understand the
past, by studying the signs - S. Downes <http://www.downes.ca/post/20>

This means getting beyond narrow text-based conceptions we have of media

LEAVE BRITNEY ALONE!



★ ★ ★ ☆ ☆ 202,225 ratings

25,558,086 views

♥ Favorite ➔ Share + Playlists 🚩 Flag

MySpace

Facebook

Send Video

[\(more share options\)](#)

▶ Statistics & Data

▼ Video Responses (2,212)

[Post a Video Response](#)

Conceptions Like:

- messages have a sender and a receiver
- words get meaning from what they represent
- truth is based on the real world
- events have a cause, and causes can be known
- science is based on forming and testing hypotheses

These, taken together, constitute, a static, linear, coherent picture of the world

This is the same issue facing old vs new depictions of OERs

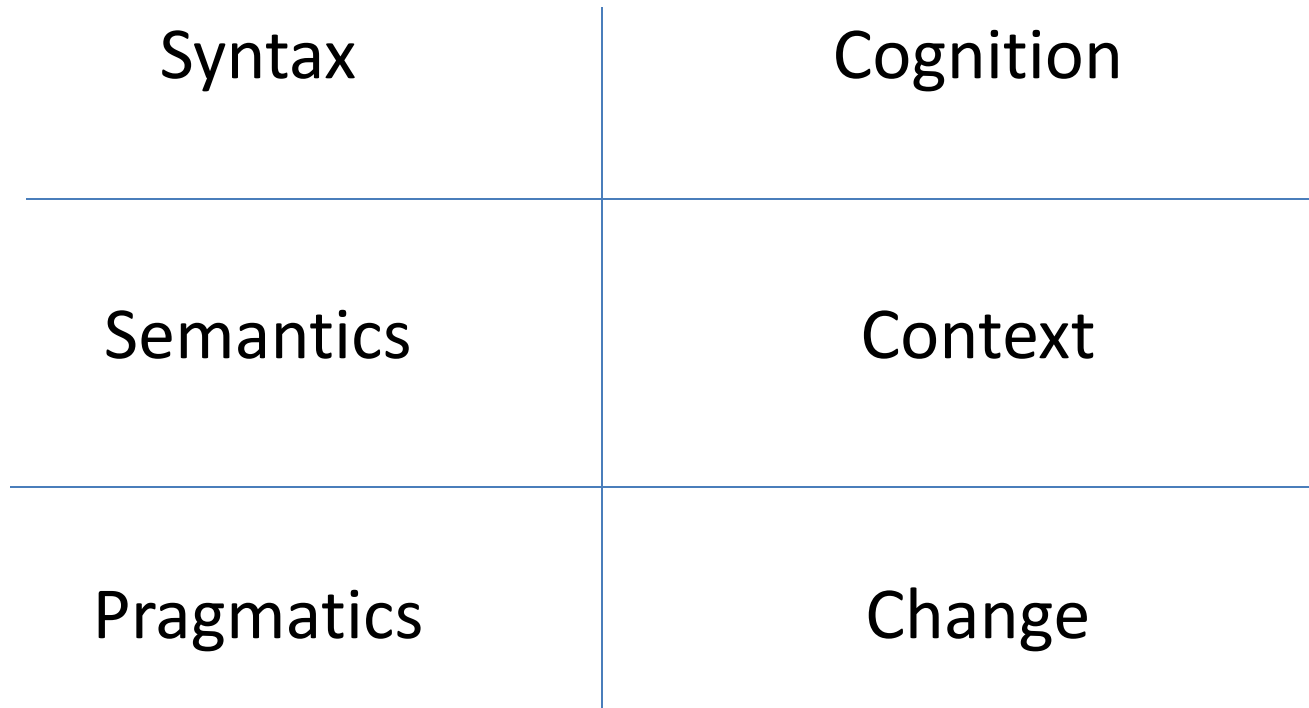
Not everyone sees it that way

OERs as *Language*, not Content

- We have to stop treating online resources – including educational materials - as though they were ‘content’
- The people who actually *use* them have moved far beyond that
- These artifacts constitute a new *language*; they are (if you will) the *words* is a large, complex, post-linguistic vocabulary
- That’s why they need to be open

A frame for understanding new media

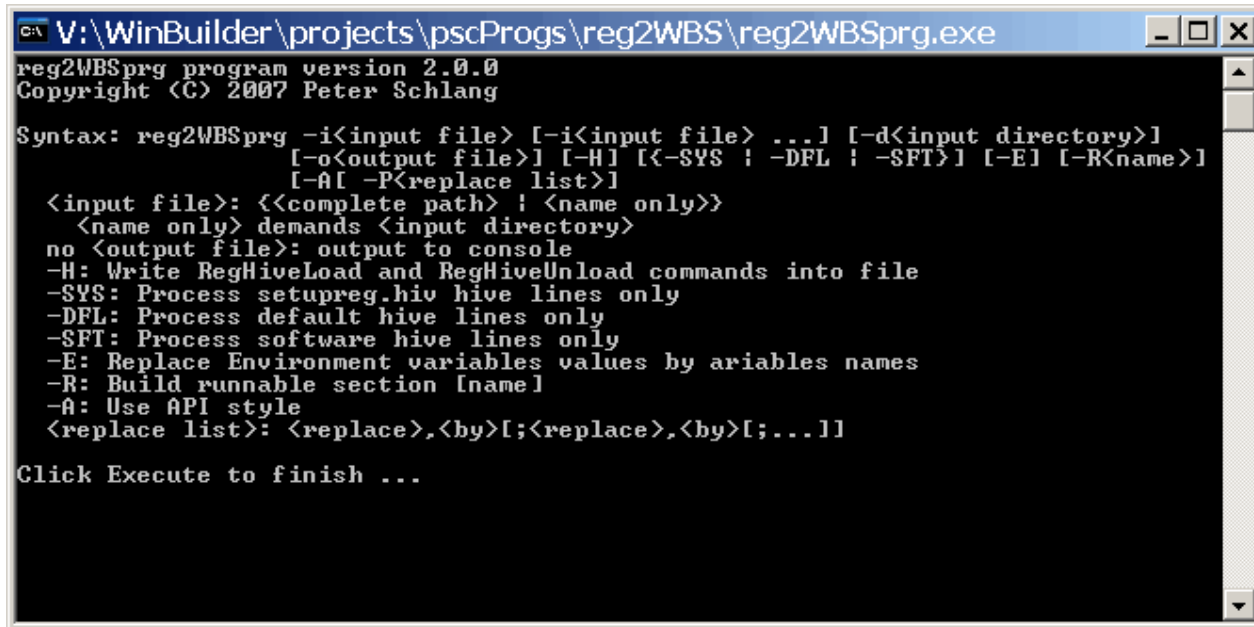
Morris, Derrida and a little Lao Tzu



We need this frame because if we aren't looking for these things, we just won't see them.

Syntax

Not just rules and grammar



```
C:\V:\WinBuilder\projects\pscProgs\reg2WBS\reg2WBSprg.exe
reg2WBSprg program version 2.0.0
Copyright (C) 2007 Peter Schlang

Syntax: reg2WBSprg -i<input file> [-i<input file> ...] [-d<input directory>]
        [-o<output file>] [-H] [<-SYS | -DFL | -SFT>] [-E] [-R<name>]
        [-A] [-P<replace list>]
    <input file>: <<complete path> | <name only>>
    <name only> demands <input directory>
    no <output file>: output to console
    -H: Write RegHiveLoad and RegHiveUnload commands into file
    -SYS: Process setupreg.hiv hive lines only
    -DFL: Process default hive lines only
    -SFT: Process software hive lines only
    -E: Replace Environment variables values by ariables names
    -R: Build runnable section [name]
    -A: Use API style
    <replace list>: <replace>,<hy>[;<replace>,<hy>[;...]]

Click Execute to finish ...
```

Forms: archetypes? Platonic ideals?

Rules: grammar = logical syntax

Operations: procedures, motor skills

Patterns: regularities, substitutivity (eggcorns, tropes)

Similarities: Tversky - properties, etc


Semantics


theories of truth / meaning / purpose / goal

[[SEMANTICS]]

of a structure

By Tom 7

[[

[[

<http://www.cs.cmu.edu/~tom7/csnotes/fall02/semantics.gif>

- Sense and reference (connotation and denotation)
- Interpretation (Eg. In probability, Carnap - logical space; Reichenbach - frequency; Ramsey - wagering / strength of belief)
- Forms of association: Hebbian, contiguity, back-prop, Boltzmann
- Decisions and decision theory: voting / consensus / emergence

Pragmatics

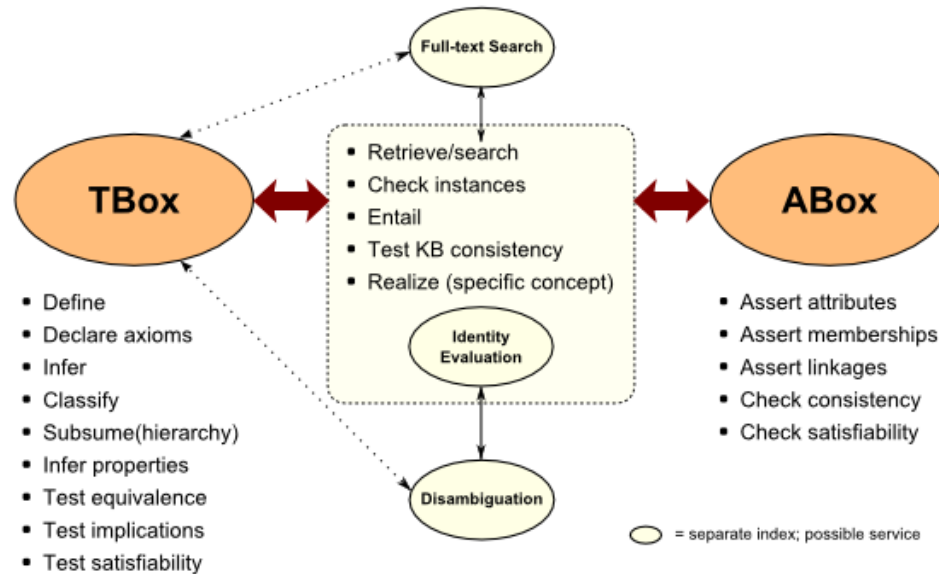
use, actions, impact



- Speech acts (J.L. Austin, Searle) assertives, directives, commissives, expressives, declarations (but also - harmful acts, harassment, etc)
- Interrogation (Heidegger) and presupposition
- Meaning (Wittgenstein - meaning is use)

Cognition

reasoning, inference and explanation



<http://www.mkbergman.com/category/description-logics/>

- description - X (definite description, allegory, metaphor)
- definition - X is Y (ostensive, lexical, logical (necess. & suff conds), family resemblance - but also, identity, personal identity, etc)
- argument - X therefore Y - inductive, deductive, abductive (but also: modal, probability (Bayesian), deontic (obligations), doxastic (belief), etc.)
- explanation - X because of Y (causal, statistical, chaotic/emergent)

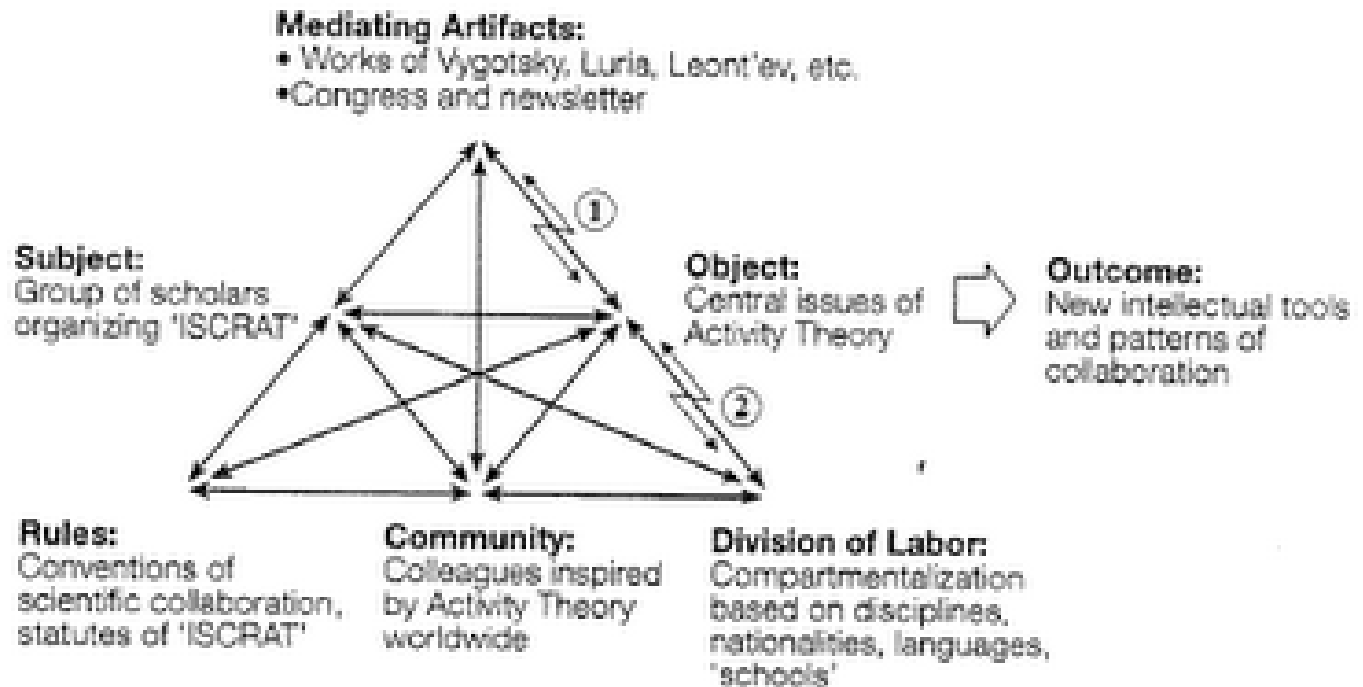
Context placement, environment



<http://www.occasionbasedmarketing.com/what-it-is>

- explanation (Hanson, van Fraassen, Heidegger)
- meaning (Quine); tense - range of possibilities
- vocabulary (Derrida); ontologies, logical space
- Frames (Lakoff) and worldviews

Change



- relation and connection: I Ching, logical relation
- flow: Hegel - historicity, directionality; McLuhan - 4 things
- progression / logic -- games, for example: quiz&points, branch-and-tree, database
- scheduling - timetabling - events; activity theory / LaaN

21st Century ~~Skills~~ Languages



http://spotlight.macfound.org/btr/entry/new_media_literacies/

The 'skills' described by Jenkins –
performance, simulation, appropriation, etc -
are actually *languages* and should be
understood in terms of these six dimensions

<div> <div>Languages</div> <div>Performance</div> <div>Simulation</div> <div>Appropriation</div> </div> <div>Elements</div>			
Syntax			
Semantics			
Pragmatics			
Cognition			
Context			
Change			

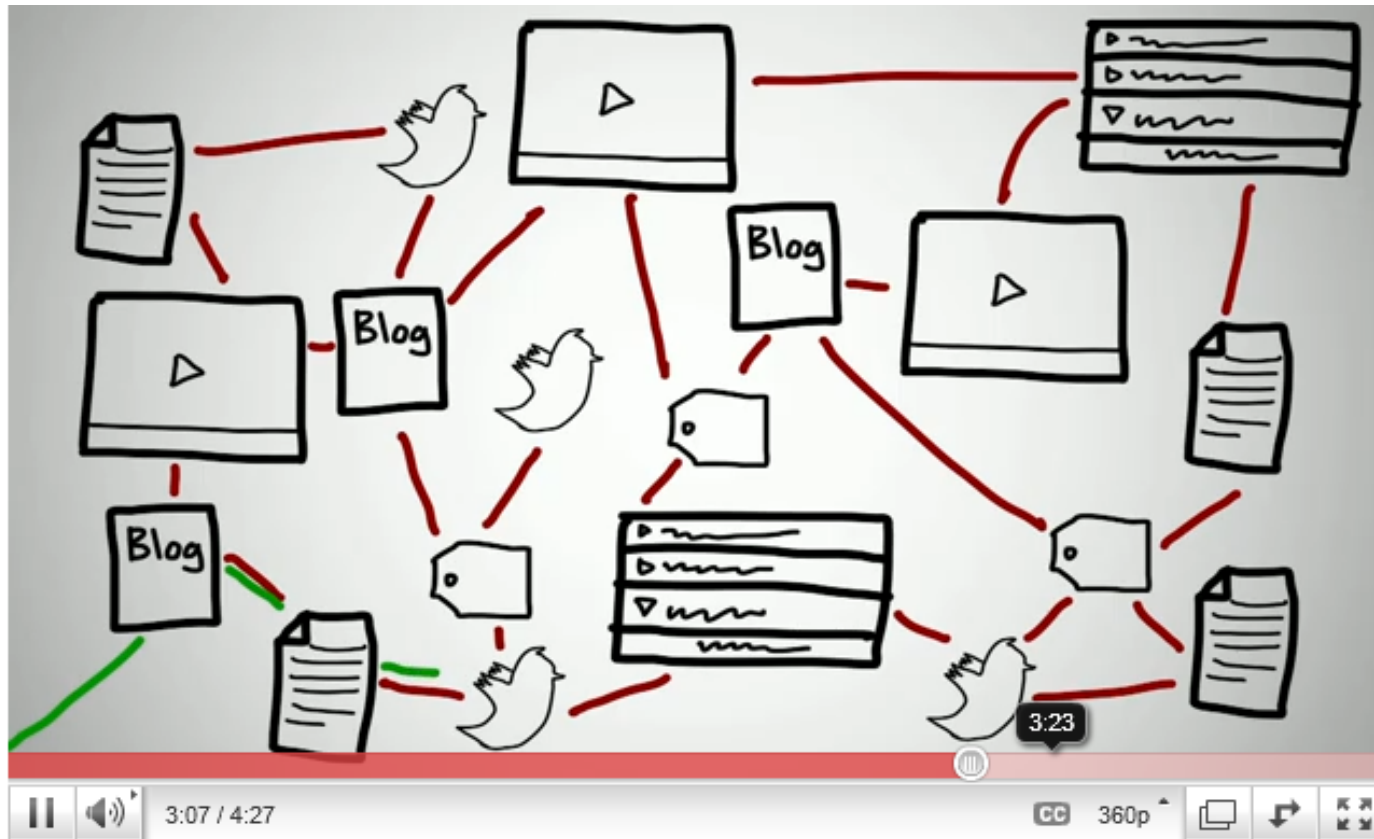
Example: Performance - Syntax

<div>Languages</div> <div>Elements</div>	<div>Performance</div> <div>(the ability to adopt alternative identities for the purpose of improvisation and discovery)(subcategories?)</div>
<div>Syntax:</div> <ul style="list-style-type: none">- Forms- Rules- Operations- Patterns- Similarities	<ul style="list-style-type: none">- Presentation acting, method acting- “Know your lines” etc http://filmtvcareers.about.com/od/gettingthejob/a/GJ_Actor_Tips.htm- Stanislavski’s system (etc...) http://en.wikipedia.org/wiki/St%C3%A1nislavsk%C3%BDs_system- Ritual Performance (etc.) http://www.let.rug.nl/koster/papers/JHP.Koster2.Edit.pdf- Comparing Tales (etc.) http://artsedge.kennedy-center.org/content/2343/

A third thesis:

Fluency in these languages constitutes
“21st century learning”





<http://www.youtube.com/watch?v=eW3gMGqcZQc>

- MOOC: Massive Open Online Course
- Network Design, Community Based

<http://cck11.mooc.ca/>

Open Courses



<http://www.youtube.com/watch?v=FPEuu5mpC4s>

- Aggregate – gather resources from wherever they may be
- Remix – mash up, put together, join
- Repurpose – localize, adapt, mark up, tag, review, lip dub
- Feed forward – as video, slides, graphics, text



http://www.youtube.com/watch?v=iLL6x_TNMSo

- Big Data, Web of Data, Semantic Web, RSS, Geo, FOAF...
- Mash-ups, APIs, the Cloud, Social Network

The Open Learning Ecosystem



<http://www.youtube.com/watch?v=X0il0pgTUx0>

- <http://www.downes.ca>
- Free Learning

Stephen Downes