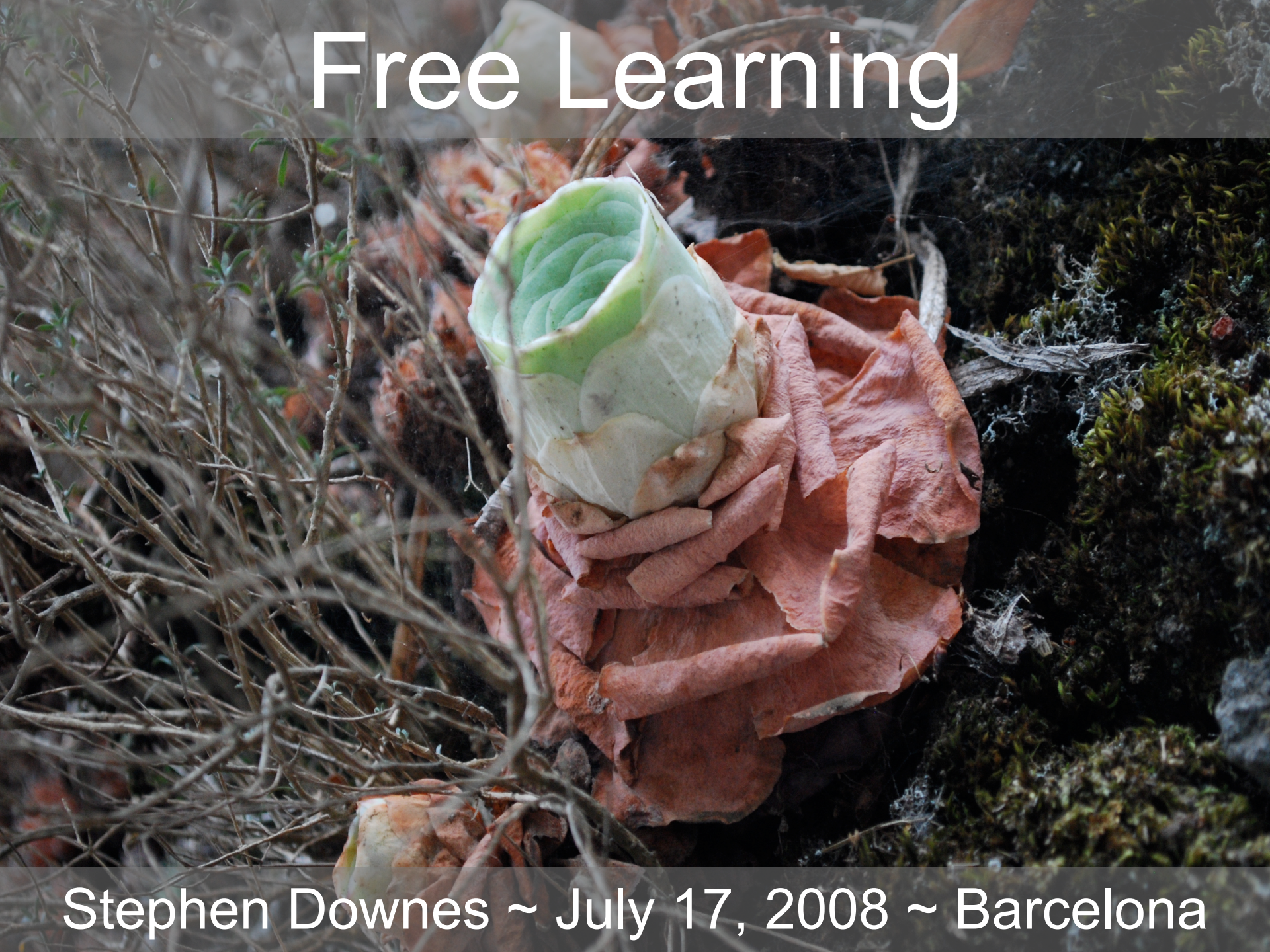


Free Learning



Stephen Downes ~ July 17, 2008 ~ Barcelona

Is this the future of learning?

Type of *Aeonium canariense* var *virginicum* (Webb ex Christ) H.-y. Liu [family CR.

HOME / CRASSULACEAE / Aeonium / canariense



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<http://www.aluka.org/action/showContentImage?doi=10.5555/AL.AP.SPECIMEN.K000232959&pgs=>

This is a restriction being applied by *public* schools, museums and libraries

Education Matters

It's not just an issue for academics and philosophers to discuss...



Public education matters



gRSSHopper

- <http://grssshopper.downes.ca>

Freedom...

- Typically defined as scope for action, as the ability to *do*
- *Eg.* Talking about activists and artists, Serrado talks about transmission
- Freedom becomes something externally defined - in *cultural objects*, say - creation, production, transmission

Freedom (2) ...

- My own take: freedom is definable more as a state of being
- Eg. Having a legal right to do something means nothing if you don't *feel* you can do it, if you're uncomfortable doing it, or in a state of fear

Freedom (3) ...

- Freedom is an *attitude*, a perspective of self-determination, of self-government, to *be* what you want to be

Freedom (4)

- where each person is able to rise to his or her fullest potential
- where they may express themselves fully and without reservation
- Where they are able to form networks of meaningful and rewarding relationships

Freedom (5)

- This translates (in part) to a definition of freedom as *access*
- A society where knowledge and learning are public goods, freely created and shared, not hoarded or withheld in order to extract wealth or influence

Personalized Education

a. The idea

- In 1998 I said

The development of such a tool makes it not just possible, but inevitable, that education of the future will become deeply personalized

- It's still true, but this future hasn't happened yet (at least, not obviously so)

- The concept of the *class*
 - Is still basic to education
 - Still is determined (at lower levels) by age rather than inclination or achievement
 - Is sometimes disguised (as, eg., the *cohort*)

- I have explored this via the concept of *groups versus networks*
- I think there are emotional factors holding us to the idea of the class
- The feeling is, without the group, we will atomize - nobody is willing to risk that

- The motivation - I said in 1998 - was that it was more efficient
 - This is still true in an institutional setting today
 - But it's less true, and it is less of a reason for holding on to the class
- My own belief is that it prevails today because it preserves existing power

b. toward personalization

- In 1998 I predicted a shift in the fundamental unit of education:
 - *From* the class
 - *To* the topic
- This is being realized today in the development of *competences* and competency-based systems (eg. TenCompetence)

- The idea of competences:
 - Competences are based on identifiable skills or capacities (hence, are tied to *growth* (rather than content))
 - Students can select their own track or achievement path
 - Competences correspond to identifiable learning resources (learning objects?)

- However:
 - It's not clear that an outcomes-driven system is what we want
 - Many valuable things - art appreciation, for example - is identifiable as an outcome
 - It's not clear that all learning is identifiable as a measurable competence
 - Traditional education includes the idea, not only of passing the test, but of being *recognized* as competent by an expert

- Where we are headed:
 - Competences become just one way (and a generally employer centered way) to identify learning opportunities
 - The selection of learning resources will not be a stand-alone activity, but will be embedded in other activities (think, again, of how we learn in the context of a game)

c. educational delivery systems

- Learners will select 'topics'
- Topics will be selected by:
 - Learner interest
 - Learner aptitude
 - Educational level
 - Social need (that is, the desire of the learner to accomplish something specific with a community)

- Topic selection options (or menus) will be based on:
 - Prior learning
 - Parent input and control
 - Relevant legislation and jurisdiction
 - Employer criteria and recommendations

- The process of topic selection:
 - *Can* be like selecting a television channel, but...
 - Will *also* be something that happens in the context of some other activity
 - (The idea is that learning and living are *not* separate activities)

- Topic *delivery* systems...
 - Are like game module (or level) delivery systems, or are like (content) resource delivery system
 - The original intent was that such systems would delivery *learning objects*
 - But today, I say ‘learning resources’ because the term ‘learning objects’ has become corrupted

d. delivery systems today

- Are essentially *content* delivery systems
- Are based on a *publication* model of storage and distribution
- Are *institutionally* based
- Tend to focus on delivery to *classes*

e. The PLE

- Will replace learning management systems
- Is based on the idea of personal access to resources from multiple sources
- Like conferencing, is based on a personal we presence
- Focuses on creation and communication rather than on content completion

- In an important sense, the PLE is a concept, not an application
 - Though the PLE *could* be an application...
 - The idea is that the envisioned functionality is available through many applications
 - So, eg., “using an interface in Civilization VI to write a brief report for your blog on Napoleon’s tactics” *is* an instance of th PLE

- I used to call this the ‘Quest Model’ (still do, actually)
- Think of the internet as a big game...
 - It presents challenges to you, that you engage singly or in *ad hoc* groups
 - Your accomplishments and achievements become part of your personal profile
 - Which in turn informs new challenges

f. the menuization of learning

- This exists today - *outside* educational institutions - both online and in the software store (go, *browse*)
- For all practical purposes, the internet *is* a big game - think (again) of Facebook
- Once we can keep score, this will become evident

g. understanding ed delivery

- Today's dominant understanding of educational technology is as a *system*
- This needs to be contrasted (as before) with one based on *standards*
- By this I do *not* mean 'learning object metadata' (which is totally a publisher mindset)

- Educational institutions need to think of their offerings as entities that will be a part of, and interact with, the larger environment
- For example, again: the photo editor that connects to Flickr
- Think about what an *art appreciation* resource would do with Flickr photos

- Not just that - they need to *use* this data to form composite wholes
- Eg. The application that takes photos tagged 'St. Peters' to create an image built from thousands of Flickr photos
- (This is the fundamental understanding behind connectivism)

- Educational institutions need to:
 - *Make resources available* for use in other contexts (rather than having students come to them)
 - Such material will be offered to people automatically, in other contexts, and may or may not be used (deal with it)

- Resources will be offered:
 - Student-selected, from a ‘library’ (which you share with other ‘publishers’)
 - Event-driven, by the system, which will offer a resource at an appropriate time
 - Time-driven (think of Tony Hirst’s RSS-driven course)
 - Instructor (or mentor, or coach) driven - as in a blog offering or RSS feed

- These resources need to:
 - Be able to learn about the environment they are being offered in
 - Be able to learn about the student
 - And to get this information, not just locally, but from anywhere on the internet
 - Communicate state and other information to other (authorized) systems and services

h. where we are

- Not 'there' yet...
- Institutions do not (yet) understand how to deliver to external systems
- But we are seeing first signs - eg., iTunes University
- We may see it inside 'courses' first - but the long-term trend is to open delivery

i. why we need it

- Personalization is simply more efficient and people will be less satisfied to waste time in class
- People prefer some measure of control over learning, especially regarding delivery and learning styles
- Such a system automates much of the paperwork in education

j. What it isn't

- It isn't machine learning
- People will not be judged by machines
 - They (still) won't stand for it
 - Machine judgments are inaccurate
 - The role of peer and community recognition remains vital (because it's a more fine-grained and complex system)

Where Free Learning Fits Into This

- 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

- The *learning* in such a picture happens in two ways:
- First, *society* learning as the network of connections between individuals takes shape
- Second, *individuals* learn as the process of being a node shapes connections in their own brains

- The *communications* between nodes were, in former days, text based (consisting of *language*)
- The *materials* used for such communications were *free* - the letters, the words, the grammar, the syntax
- Nobody *owned* language (though there are pressures to change that)

- Communications today are in the form of (what might be called) multimedia objects
- We send cultural artifacts back and forth to each other, as though they were words
- Example: lolcats, YouTube videos, Flickr images, the rest

- Cultural artifacts, as the new language, need to be free - otherwise *we can't communicate* - otherwise, we are stifled, muted
- The free movement of cultural artifacts fosters learning - the hindered movement of such artifacts fosters control

- Al Gore - *The Assault on Reason* - clearly describes the consequences of this
- Gore: a society that used to *think for itself* (through reading) is now one that has its thinking done for it (through television)

So... Licensing

- I have a history of supporting 'noncommercial' clauses in my licenses (for learning resources - my software is GPL)
- My reasoning is based on this: that the commercial use of learning resources constitutes a form of *restriction* (and not a form of freedom)

- My view on licensing has to do with *perspective* - the point of view of the *learner* - the node in society
- Commercial uses of content form *barriers* to learning - starve the learner of the diverse perspectives needed to learn

Commercial Use

- To be clear - by 'commercial use'
- I do *not* mean 'use by a commercial entity' - that would be a ridiculous definition
- I mean 'use that is commercial' - that is
- exchanging access to the resource in return for money

- Commercial use is, therefore, to me, *by definition*, a limitation of access
- Commercial use, *by definition*, violates any free license

- What does ‘exchanging access to the resource in return for money’ mean?
- It means: the *only* way to access the resource is to pay money
- That’s the big difference between free software and free content

Free Software vs Free Content

- When a vendor charges money for free software, it's a matter of convenience, not access
 - The purchasers have computers, are not impoverished
 - They typically have some other way to obtain software
 - Software exists in only one medium - digital

- Existing (and very entrenched) content enclaves exist (especially in education)
 - You rarely find free books in a bookstore (*including* university bookstores)
 - Learner are often in positions of being *required* to use (commercial) content

- This is nothing new (and will mostly like extend to software over time, as types of platforms proliferate (think of the mobile phone)) - read Shapiro and Varian, *Information Rules*

- There are numerous ways to force a market to commercial content

Types of barriers...

Lock-out

Subscription access, user
registration, passwords, network
authentication...

Lock-in

Proprietary content and software,
closed markets, 'solutions'

High Bar

APIs and interoperability, web
services, Java, metadata

Flooding

Starbucks and AOL, spam

Legal

The attack on fair use, the attack
on free software, SCO, DMCA

... and we, as a community,
are complying...

- A license like 'Creative Commons By-SA' is (in my view *naïve*)
- If provides *no protection* against these sorts of market manipulations
- A CC license that allows commercialization allows *restricted access* because it presents *none* of these attacks on free content

- Gnu Free Documentation License - is better, in this respect, but has other problems
- But it too I *naïve* when it comes to the manipulations of the commercial marke

- In my view:
 - A license that included clauses sufficient to bar all market manipulations that prevent access to content is *functionally equivalent* to a non-commercial clause

Public Education, Again

- What - in this context - is public education?
- It is the idea that the *language* of education is constituted of *public goods*
- And that it is the role of public entities, therefore, to protect and support the entities of that language