

A photograph of a lush green forest. In the foreground, a large tree with many thin branches and dense green leaves dominates the view. Two toucans are perched on the branches: one is higher up on a diagonal branch, and the other is lower down on a horizontal branch. The background shows a dense forest of similar trees, slightly out of focus, under a bright sky.

# The Virtual Learning Organization

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This Presentation:

<http://www.downes.ca/presentation/308>

Slides, Audio, etc.

- Three meanings:

1. the organization that manages virtual learning
2. the learning organization that is virtual
3. the virtual organization that learns



# 1. The organization that manages virtual learning





# 1. The organization that manages virtual learning

- To this point in time, virtual learning has been organized the same way as traditional learning
- Characteristics:
  - fixed cohort with start and end date
  - fixed curriculum with learning objectives
  - assigned activities and assessments

- The Creation of the MOOC
  - MOOC: Massive Open Online Course
  - Started in 2008 by George Siemens and myself
- Characteristics:
  - No fixed cohort – open to all
  - No fixed curriculum – students define their own
  - No assignments – process of engagement

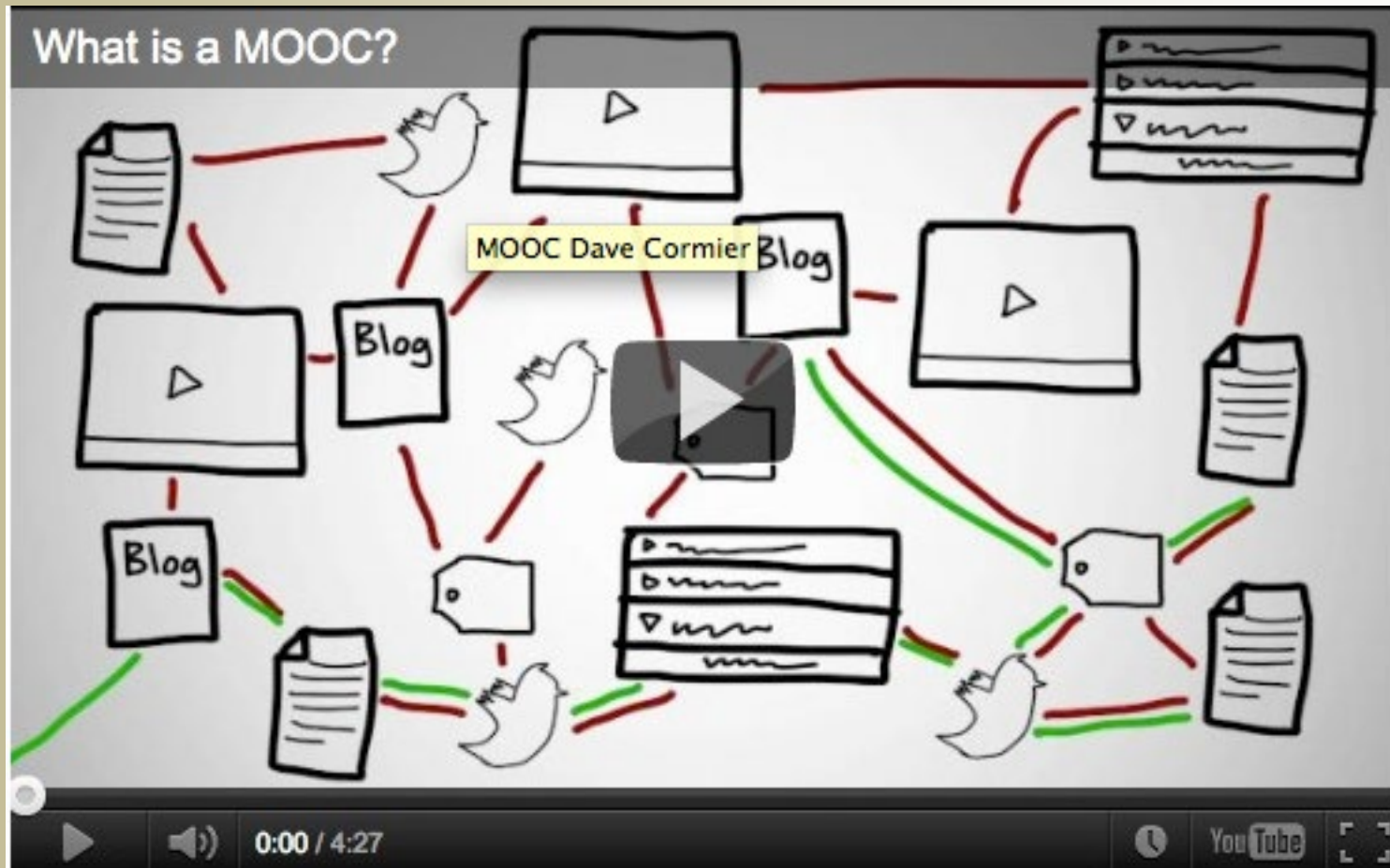
<http://www.youtube.com/watch?v=eW3gMGqcZQc>



- The MOOC Model: Course as Network
  - Process – aggregate, remix, repurpose, feed forward
  - Structure – no central course location, people use their own blogs or websites
  - Content – no single thread – content as a web of related concepts and resources



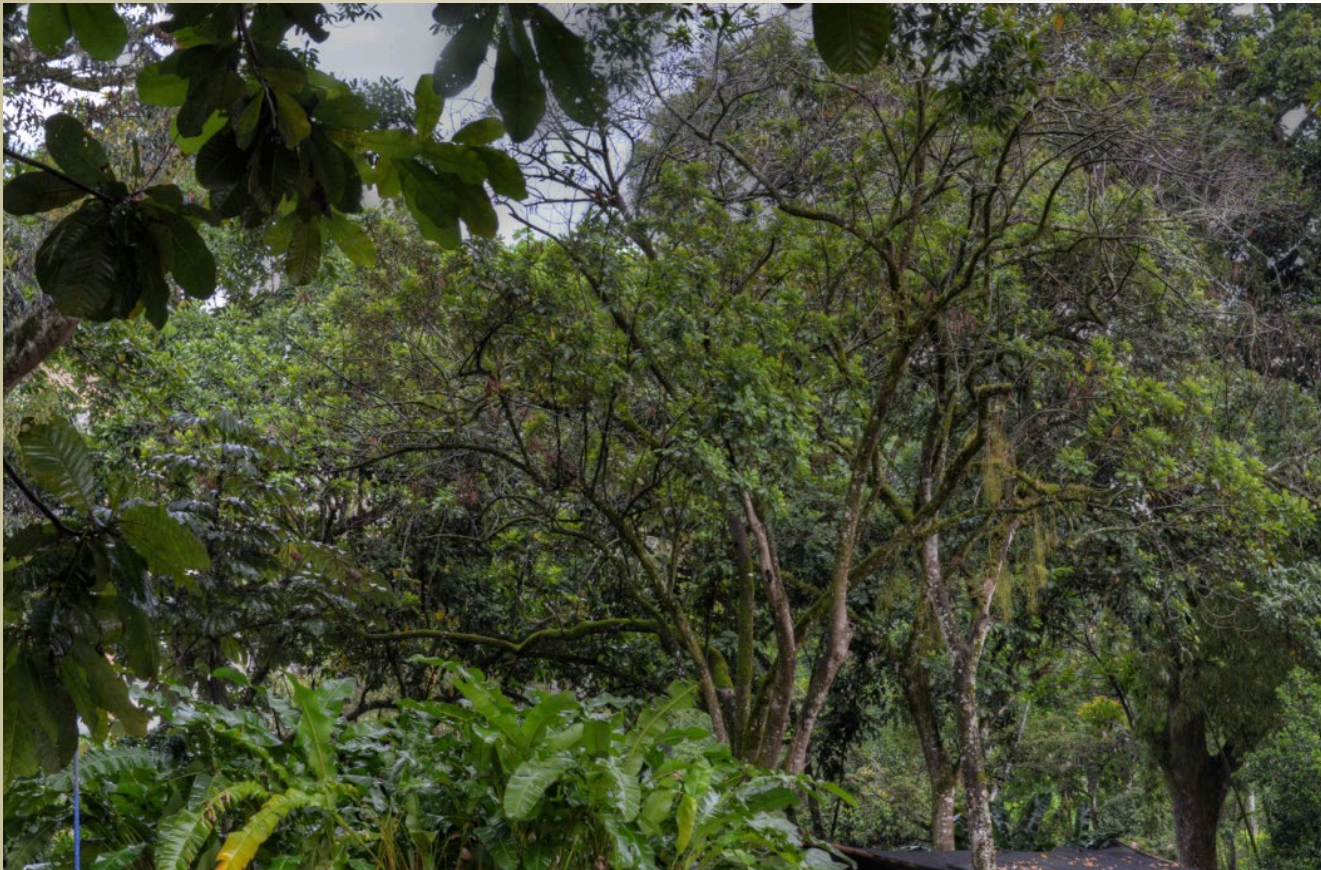
- Success in a MOOC



<http://www.youtube.com/watch?v=r8avYQ5ZqM0>

- Success Factors in a MOOC
  - Openness – open content, open technology, open discussion, open assessment
  - Autonomy – self-determination of content, success, process, expertise
  - Diversity – plurality of technologies, of resources and information, of perspectives, of expression
  - Interactivity – emergent knowledge created by connections, no single voice or message

## 2. The learning organization that is virtual





## 2. The learning organization that is virtual

- Learning organizations today are concrete
  - » they exist
  - » they have staff and funding structures
  - » they are physically based
- The inherent conflict between hierarchical organizations and non-hierarchical learning

- The xMOOC and the cMOOC
- The MIT and Stanford approach:
  - one single course centre, run by experts
  - open content, automated assessment
- The OERu ‘Logic Model’
- The new barriers
  - payment for special tutoring
  - payment for assessment

<http://www.tonybates.ca/2012/03/03/more-reflections-on-moocs-and-mitx/>

# Dimensions of Openness

- Open Content / Resources
- Open Teaching / Open Classes
- Open Assessment

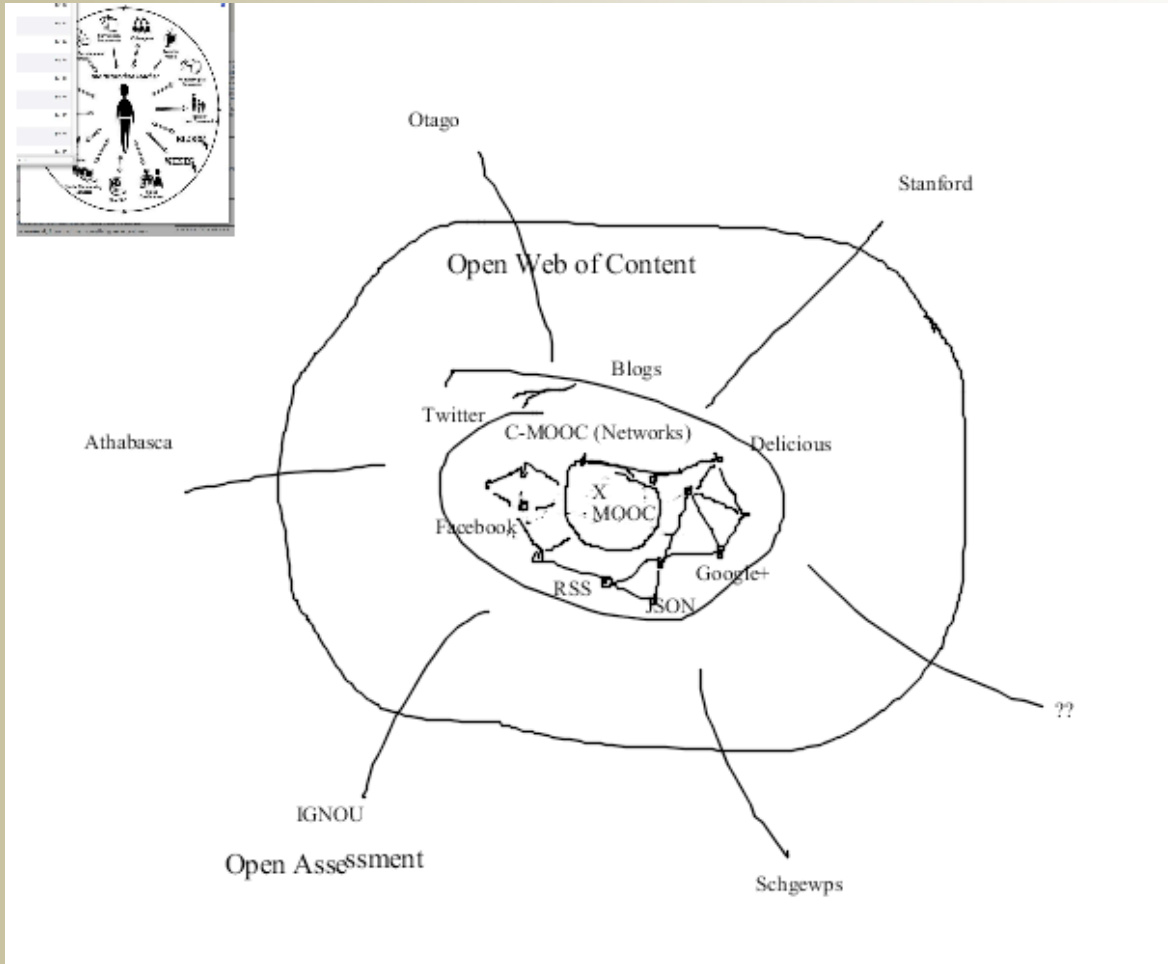




- Managed Learning
  - education as focused on outcomes
  - standardized curricula
    - defined as ‘competences’
    - centralized testing
- Education in the Service of industry
  - learning vs. ‘skills shortages’

- The Virtual Learning Organization
  - Learning networks live in a domain in between institutions
  - Points of interaction exist
    - institutions contribute content, expertise
    - institutions recognize achievement
  - New, distributed learning organizations
    - integrated with 'real world' activities
    - 'success' defined by performance

- A Rough Concept





### 3. The virtual organization that learns



### 3. The virtual organization that learns

- Traditional organizations:
  - built on a founding principle
  - establishes vision and mission
  - direction from the centre to the edges
- Criticism:
  - susceptible to mismanagement
  - unable to learn or adapt
  - becomes corrupt and inbred

- How Learning Happens
  - what it is *not*: the communication of an idea from person to person, neuron to neuron (this is *communication*, not learning)
  - what it *is*: development of organizational states in response to input or stimulus
    - knowledge is *grown*, not created
    - we can *stimulate* it; we can't manage it

- Groups

- Two forms or organization typically in conflict

- ‘Atomism’ – no cohesion or organization

- characterized by competition

- ‘Collectivism’ – individuals united as a body politic

- characterized by collaboration

- How these organizations ‘learn’:

- they don’t – *neither* form learns

- they communicate and replicate (either by imitation or control)



- The Learning Network
  - A third way: network organization
    - individuals *connected* but not united
    - characterized by *cooperation*
  - Cooperation creates network structures
    - learning happens when connections form between members
    - the resulting organization is *stronger* than any individual

# • Groups vs Networks



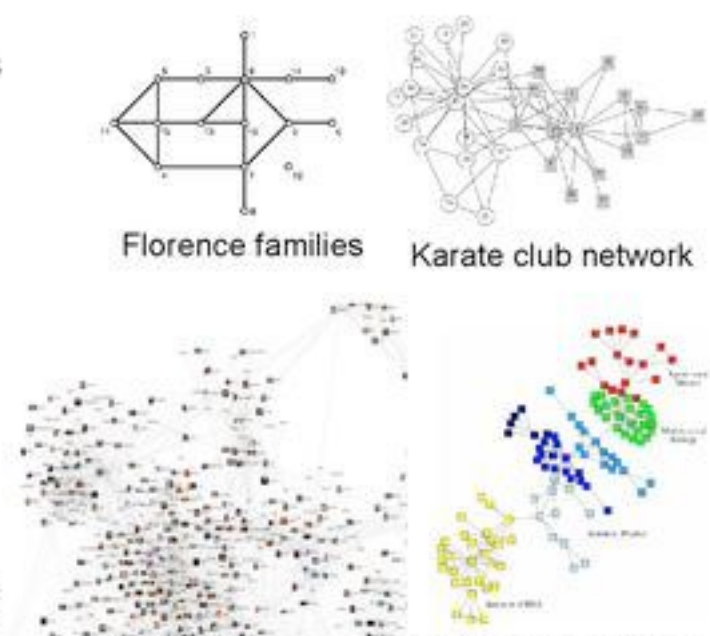
- The Principle of Self-Organization
  - the mechanisms of interaction are defined
    - (the syntax)
  - individuals remain autonomous
  - cohesion and organization occur as a result of feedback mechanisms

# • Networks in the Real World

CMU SCS

## Networks of the Real-world (1)

- Information networks:
  - World Wide Web: hyperlinks
  - Citation networks
  - Blog networks
- Social networks: people + interactions
  - Organizational networks
  - Communication networks
  - Collaboration networks
  - Sexual networks
  - Collaboration networks
- Technological networks:
  - Power grid
  - Airline, road, river networks
  - Telephone networks
  - Internet
  - Autonomous systems

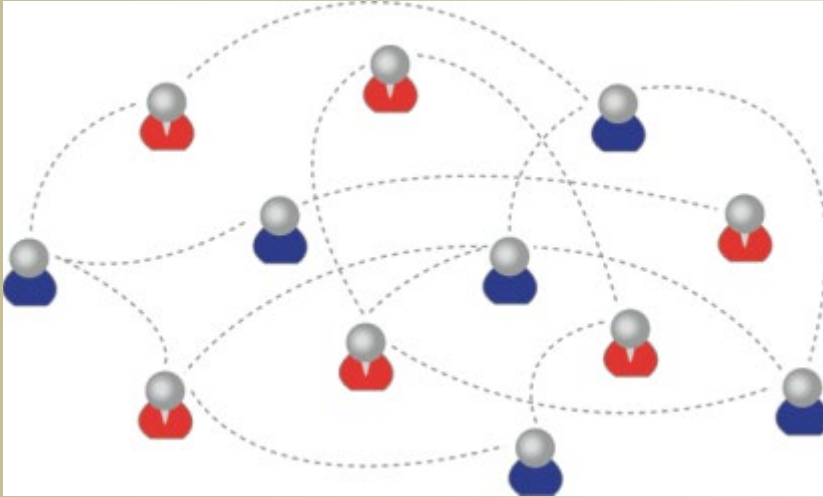


Florence families      Karate club network

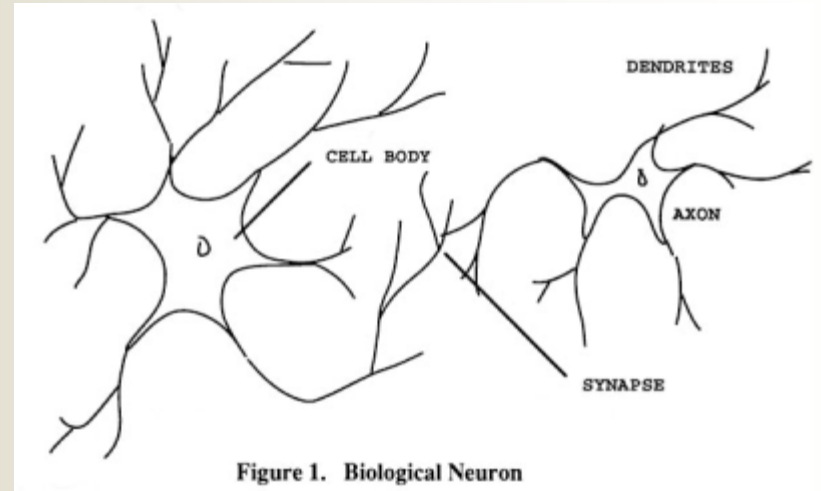
Friendship network      Collaboration network

Leskovec&Faloutsos ECML/PKDD 2007      Part 1-4





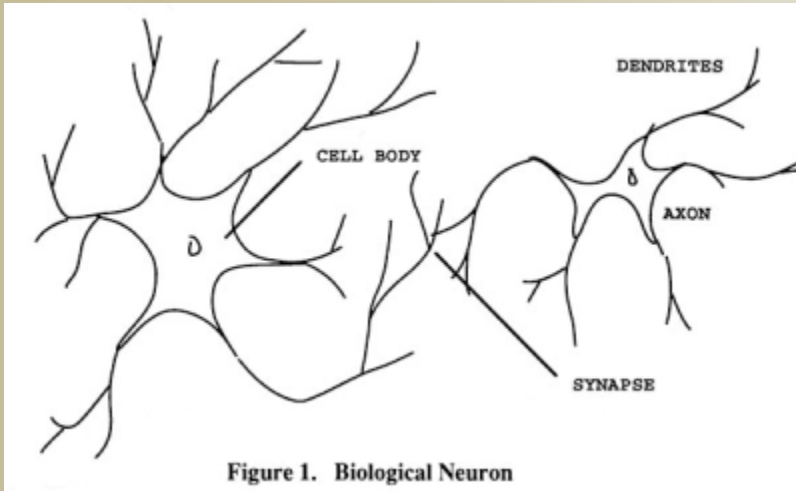
We are using one of these



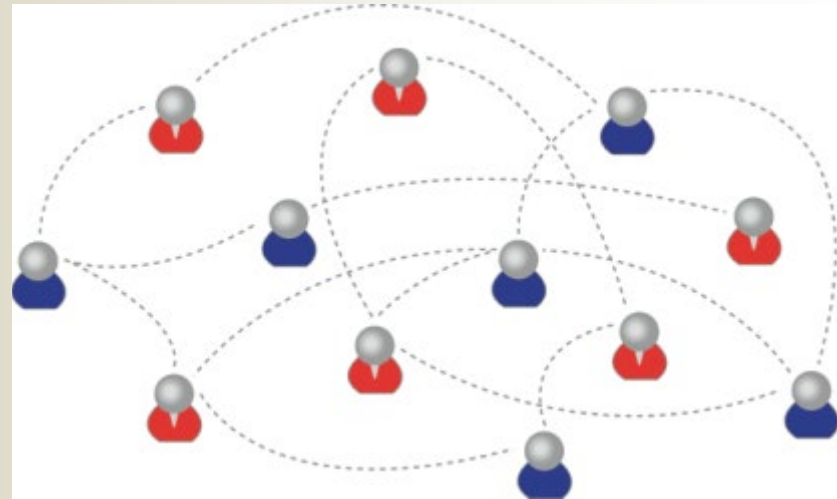
To create one of these

Personal knowledge consists of *neural* connections, not facts and data

- Learning a discipline is a *total state* and not a collection of specific states
- It is obtained through *immersion* in an environment rather than acquisition of particular entities
- It is expressed functionally (can you perform ‘as a geographer’ ?) rather than cognitively (can you state ‘geography facts’ or do ‘geography tasks’ ?)



We recognize this



By performance in this

There are not specific bits of knowledge or competencies, but rather, personal capacities

- Stephen Downes
- <http://www.downes.ca>

