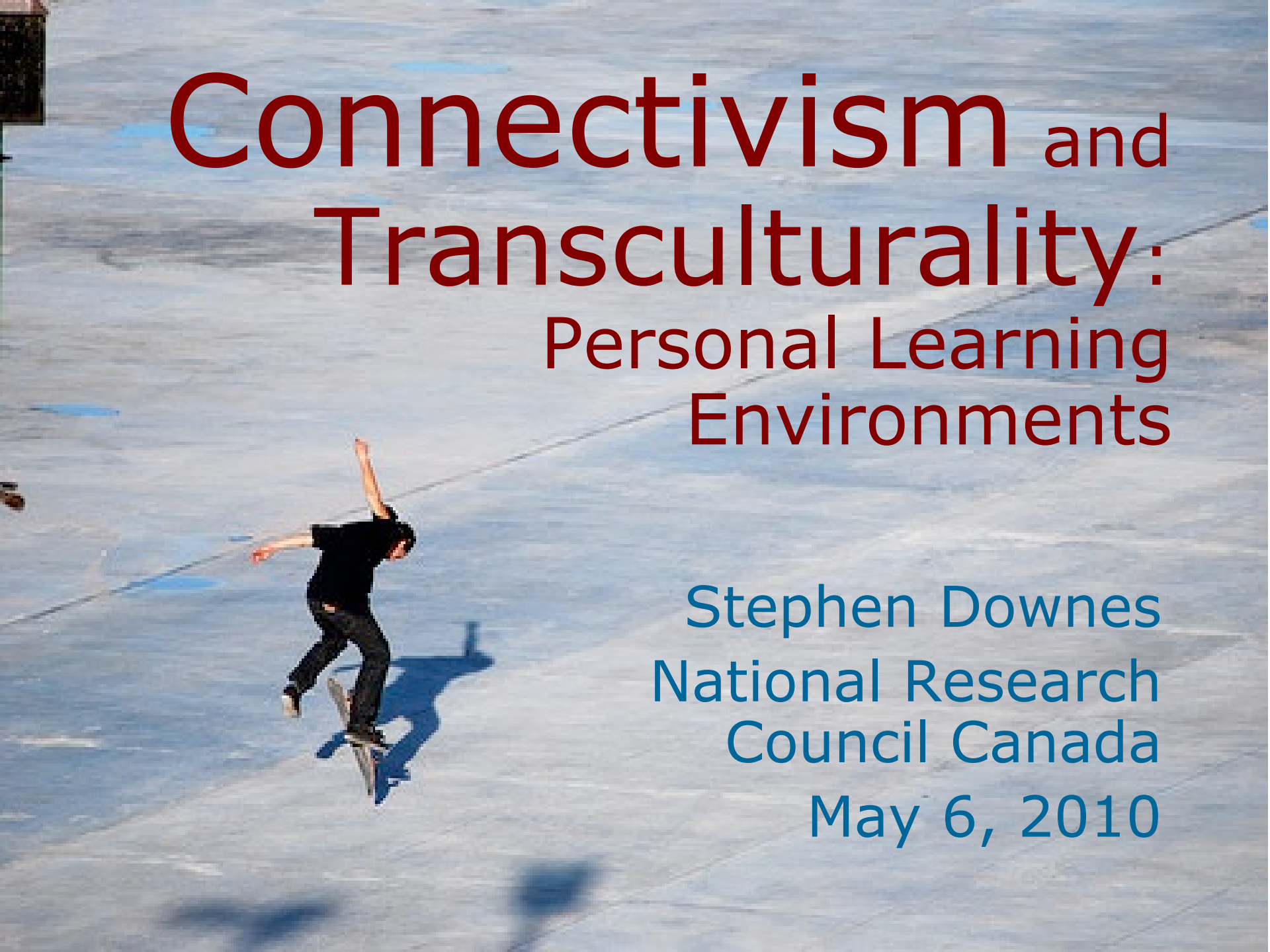
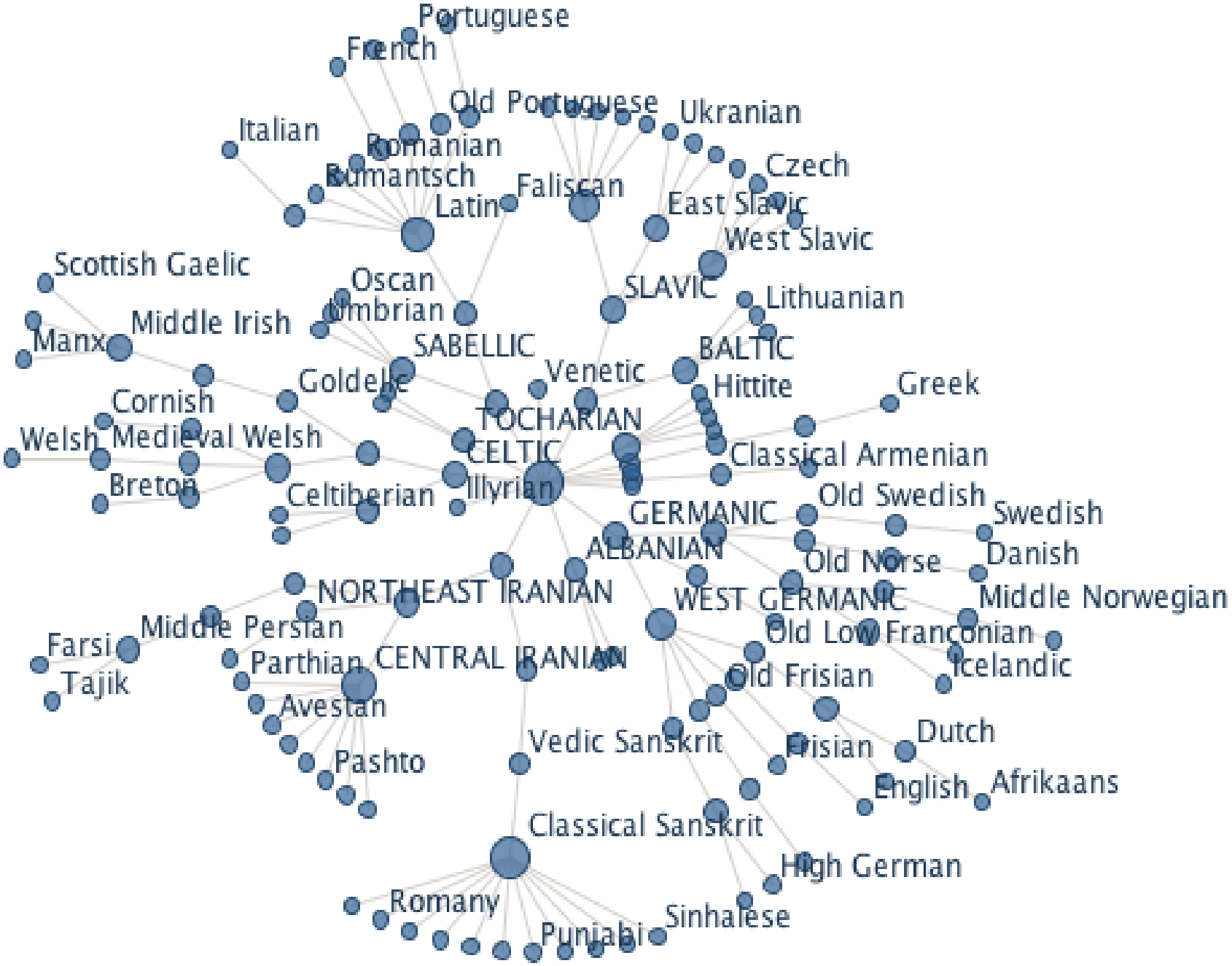


Connectivism and Transculturality: Personal Learning Environments

Stephen Downes
National Research Council Canada

May 6, 2010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Middle Irish
Manx
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BALTIC
Venetic
Hittite
Greek
Goidelic
Cornish
TOCHARIAN
Welsh
Medieval Welsh
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Classical Armenian
Breton
Illyrian
Celtiberian
Old Swedish
GERMANIC
Swedish
ALBANIAN
Danish
Old Norse
NORTHEAST IRANIAN
WEST GERMANIC
Middle Norwegian
Middle Persian
Old Low Franconian
Farsi
Parthian
CENTRAL IRANIAN
Icelandic
Tajik
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Sinhalese
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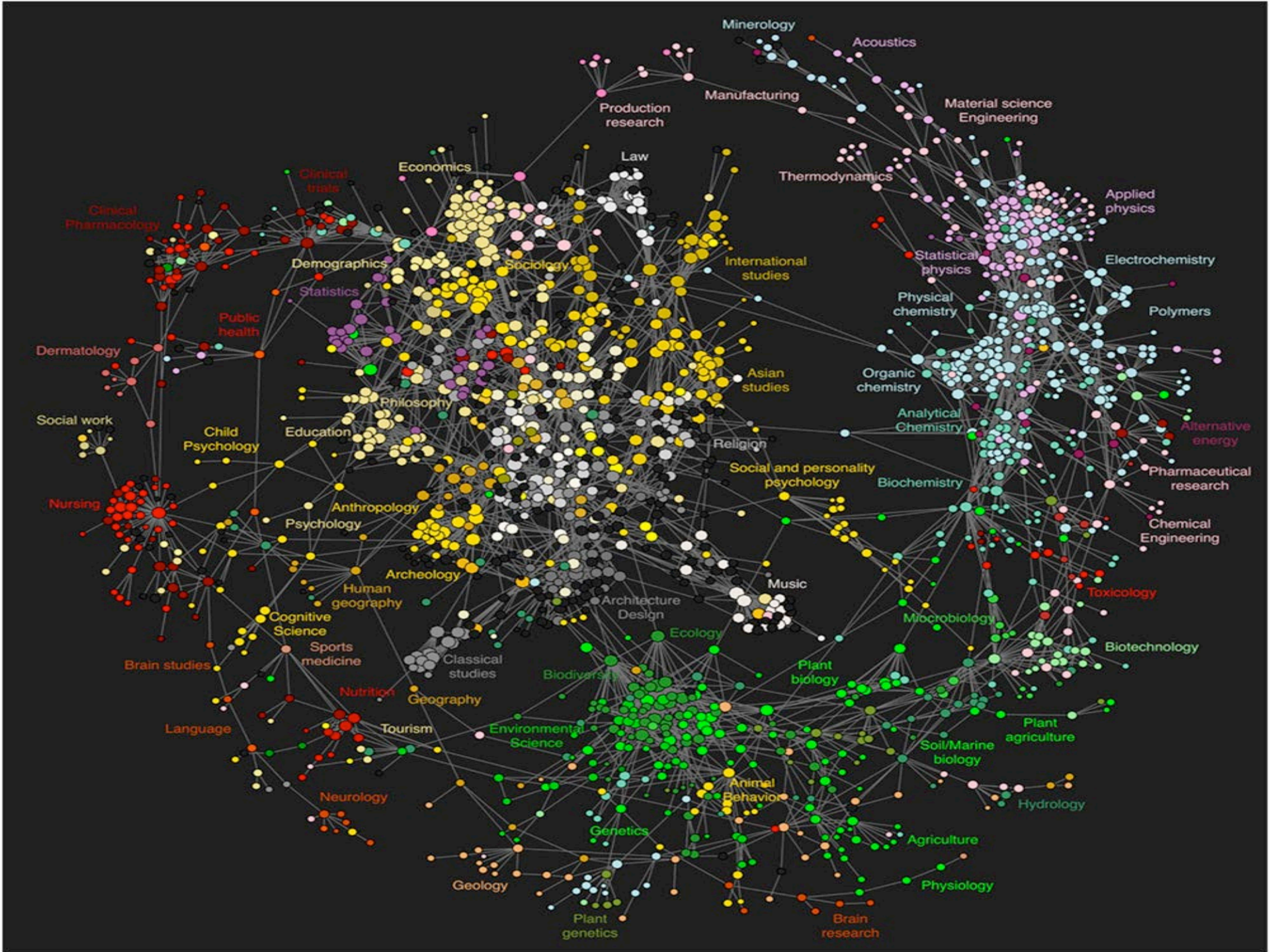
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Acoustics
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Law
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Clinical trials
Thermodynamics
Applied physics
Clinical Pharmacology
Statistical physics
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Demographics
Sociology
International studies
Statistics
Physical chemistry
Polymers
Public health
Dermatology
Asian studies
Organic chemistry
Philosophy
Analytical Chemistry
Social work
Child Psychology
Education
Alternative energy
Religion
Social and personality psychology
Biochemistry
Pharmaceutical research
Nursing
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Chemical Engineering
Archeology
Music
Toxicology
Human geography
Architecture
Design
Cognitive Science
Microbiology
Ecology
Biotechnology
Sports medicine
Brain studies
Classical studies
Biodiversity
Plant biology
Nutrition
Geography
Plant agriculture
Language
Tourism
Environmental Science
Soil/Marine biology
Animal Behavior
Neurology
Hydrology
Genetics
Agriculture
Geology
Physiology
Plant genetics
Brain research

HOY
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LENGUA
RELIGIÓN
FUTURO
AFINIDAD
RED
? ORGANIZACIÓN
? POST-GRUPO
TV
RADIO
LIBROS PRENSA
UNA VÍA
GRUPO AULA
MUCHAS VÍAS
TELÉFONO
??
METÁLICO - ELEMENTAL
ORGÁNICO - BIOLÓGICO
E-MAIL CORPORATIVO
E-MAIL PERSONAL
UNIDAD
DIVERSIDAD
PORTAL/SITIO WEB CORPORATIVO
ALGUNAS VECES
MELTING POT
ENSALADERA
PÁGINA PERSONAL
BLOG
PLATAFORMA LMS
(LEARNING MANAGEMENT SYSTEM)
COORDINACIÓN
AUTONOMÍA
PLE
(ENTORNO PERSONAL DE APRENDIZAJE)
LÍDERES - COLABORACIÓN
VALOR DEL GRUPO
(= VALOR DEL LÍDER)
COOPERACIÓN
INTERCAMBIO
VALOR MUTUO
PORTFOLIO ?
APRENDIZAJE AUTODIRIGIDO
LOM
(METADATOS DE OBJETOS DE APRENDIZAJE)
MS WORD
CERRADO
ABIERTO
RSS
HTML
COMUNIDAD DE PRÁCTICA
ACCESO RESTRINGIDO
NORMAS - JERGA
CONEXIÓN
PERSPECTIVA / CONTEXTO
CONTRASEÑAS EMPRESA
BARRERAS
PATENTES DE COPYRIGHT
C.C.
G.P.L.
PUENTES
IDENTIDAD
DISTRIBUTIVO
CUESTA ABAJO
CONECTIVO
PODCAST
VIDEOCAST
EMISIÓN
ESTRELLAS Y GURUS
CENTRALIZADO
PODER - LEYES
TECHNORATI
CONVERSACIÓN
DISTRIBUIDO
DEMOCRACIA
(O POST-DEMOCRACIA)
SKYPE?
PODCAST?
BLOGLINES
EL CONOCIMIENTO FLUYE DE LA AUTORIDAD
EL CONOCIMIENTO EMERGE
RICO
POBRE

GRÁFICO ORIGINAL:
STEPHEN DOWNES.
ADAPTACIÓN: PROFESOR POTÂCHON DE MOLDAVIA

Diversity

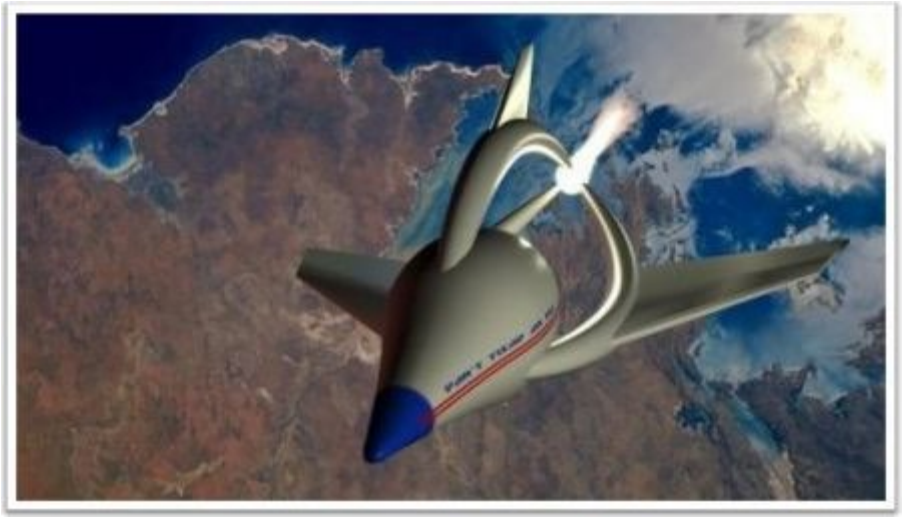
- You need a mixture of materials – you cannot grow organically from carbon alone, or water alone

Openness

- Closed systems become stagnant
- Raw materials are depleted
- The system becomes clogged with the ‘creative product’ of its members

Autonomy

- The simple cloning of entities does not allow for progress or development
- Each individual entity must manage its own grown in its own way



Interactivity

- A system cannot grow unless its parts interact – flowers need bees, cows need grain, beavers need trees
- Growth is created not by accumulation but by *flow*, by constant activation and interaction

Connectivist teaching = Managing Connections

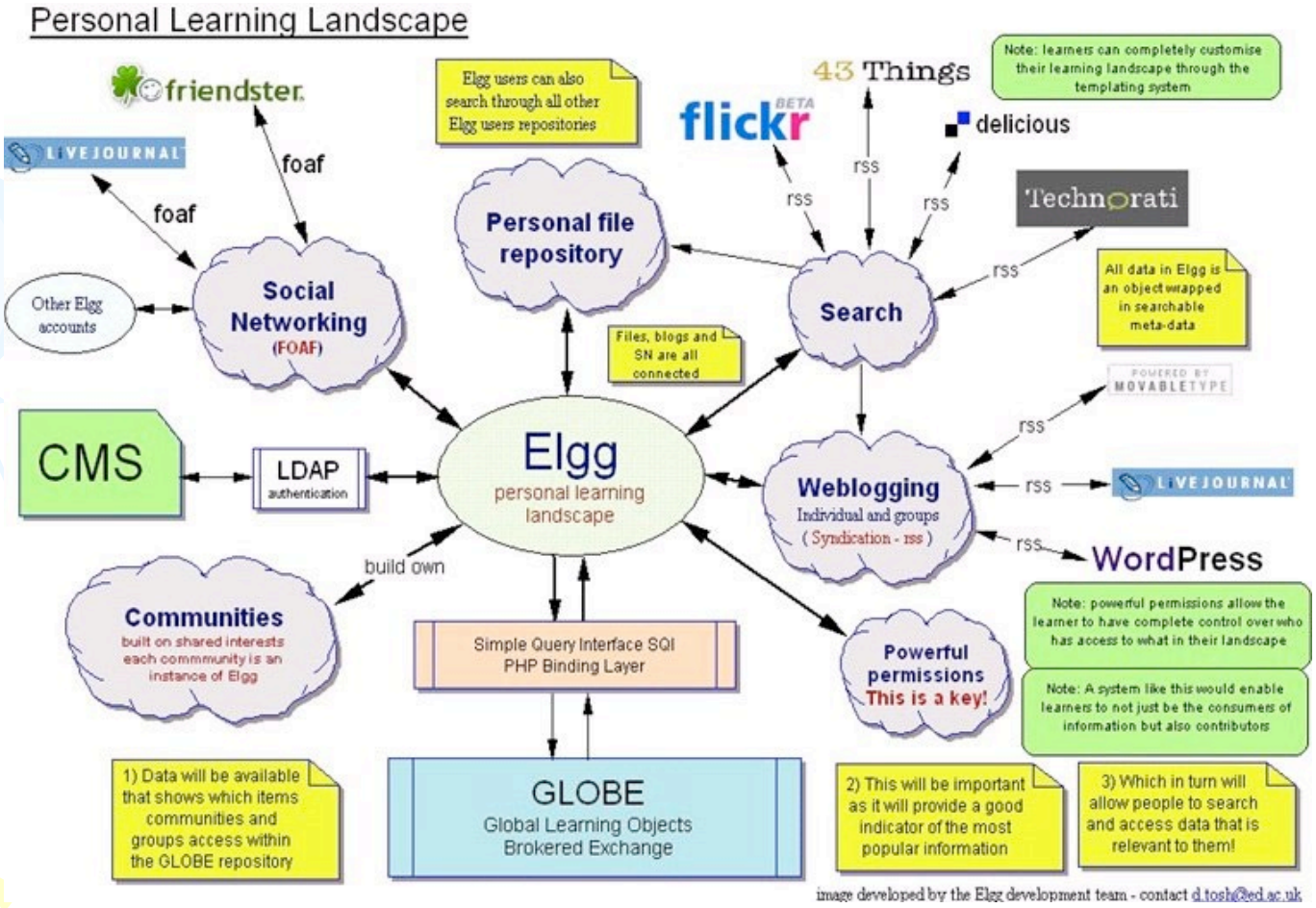


Image: http://tesl-ej.org/ej34/m1.html Via: http://edtechpost.wikispaces.com/PLE+Diagrams

Two Kinds of Knowledge

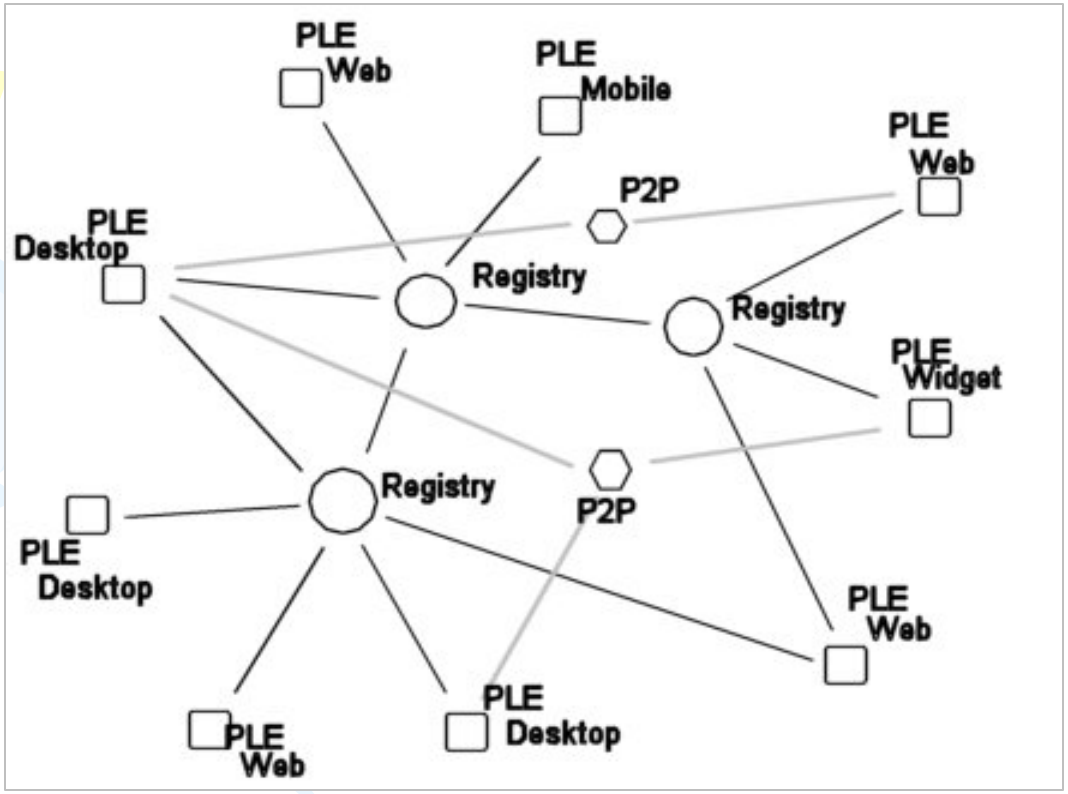
Knowledge in the Classroom:

- Static
- Declarative
- Authority-based

Knowledge in the Network:

- Dynamic
- Tacit / Non-Declarative
- Constructed

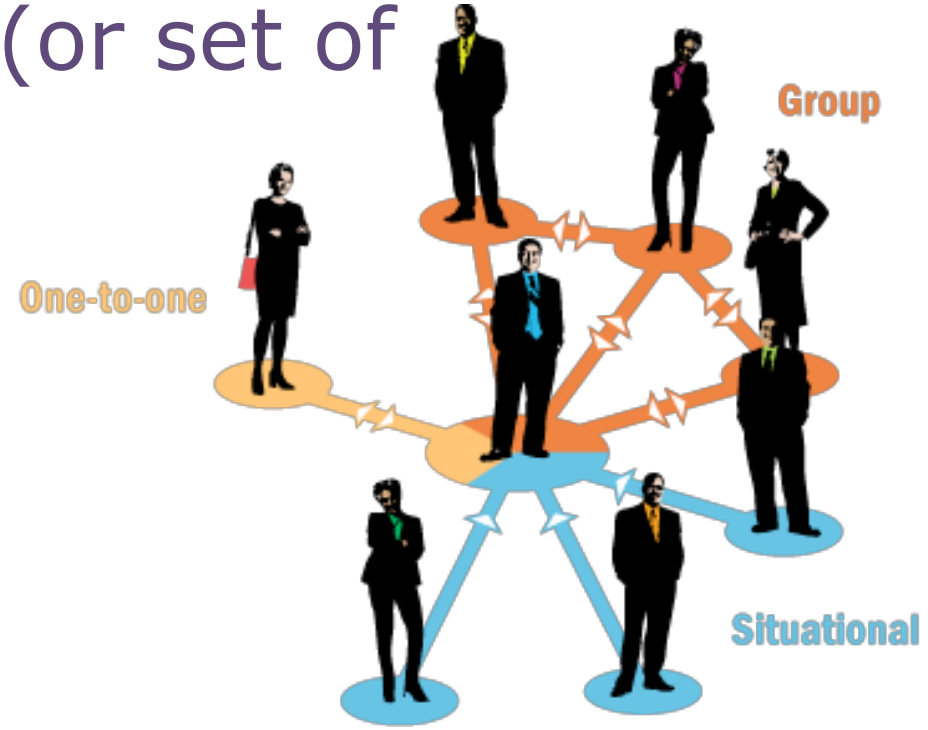
PLEs in a Network



Teachers and students are envisioned as working as a network

Social Learning

- The next step in such a discussion is usually to describe a theory of social learning, depicting learning as an external process (or set of processes)



Some Forms of Social Learning

- Behaviourism / Instructivism
- Interaction & Interaction Theory (Moore)
- Social Constructivism (Vygotsky)
- Problem-Based Learning (Johnasson)

Image:
http://ibis.tau.ac.il/twiki/bin/view/Zoology/Lotem/MyResearch

Aspects of Social Learning

- Externally-Based Definitions
  - Learning objectives, Body of Knowledge
- Externally-Based Processes
  - Learning activities, Processes and conversations
  - Interaction and communication
- External Systems
  - Classes, networks, groups, collaboration
- External Evaluation

Personal vs Social

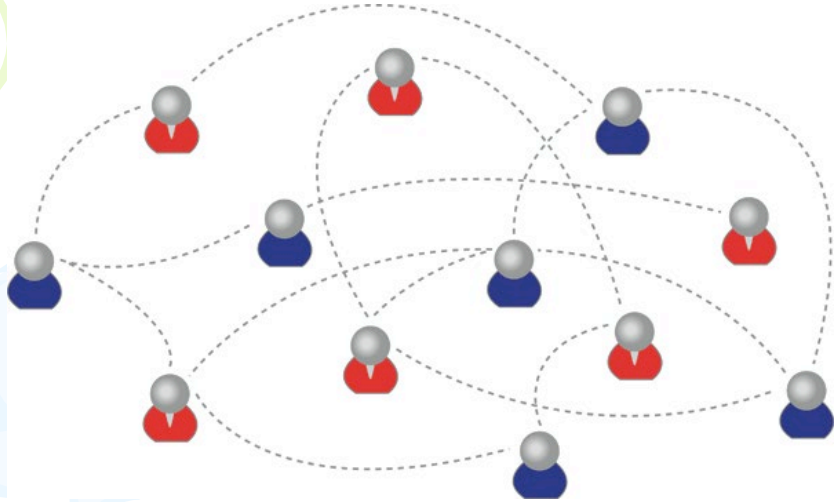
Social knowledge is *not* personal knowledge

- Personal Knowledge management = Learning
- Social Knowledge Management = Research (or, *social* learning)

The product of the educational system is not a *social* outcome (knowledge, skill, problem, community) but a *personal* outcome

Image: http://www.stalipius.com/?page_id=43

Personal Knowledge



We are using one of these

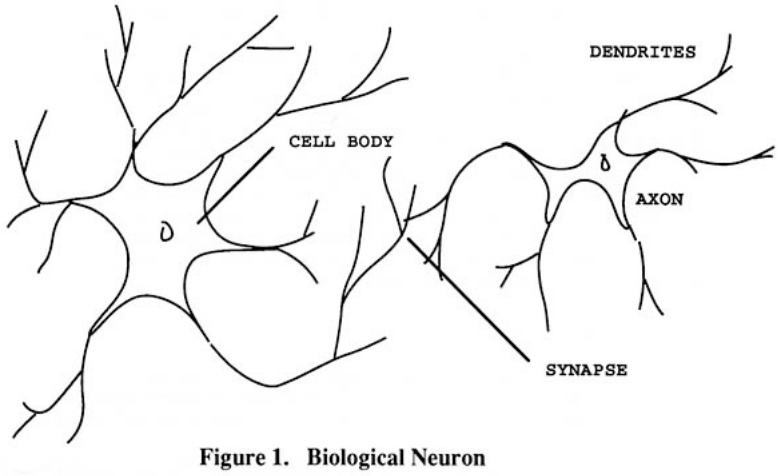


Figure 1. Biological Neuron

To create one of these

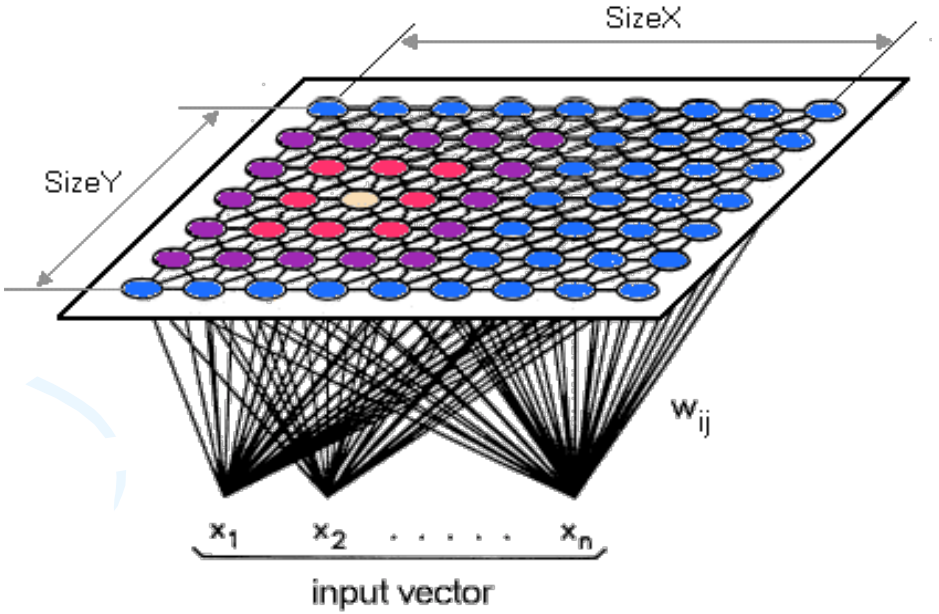
Personal knowledge consists of *neural* connections, not social connections

Learning Outcomes

Simple vs complex – text vs network

"Paris is the capital of France"

vs



It's the difference between:

- 'Knowing' that 'Paris is the capital of France' or even some sort of 'knowing how' (these are *external* definitions of this knowledge) and
- What it *feels like* to have geographical knowledge; what it *feels like* to be a speaker of a language

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

Image: http://www.perthenglish.com/English/aboutus.html

It is expressed functionally (can you perform ‘as a geographer’?) rather than cognitively (can you state ‘geography facts’ or do ‘geography tasks’?)

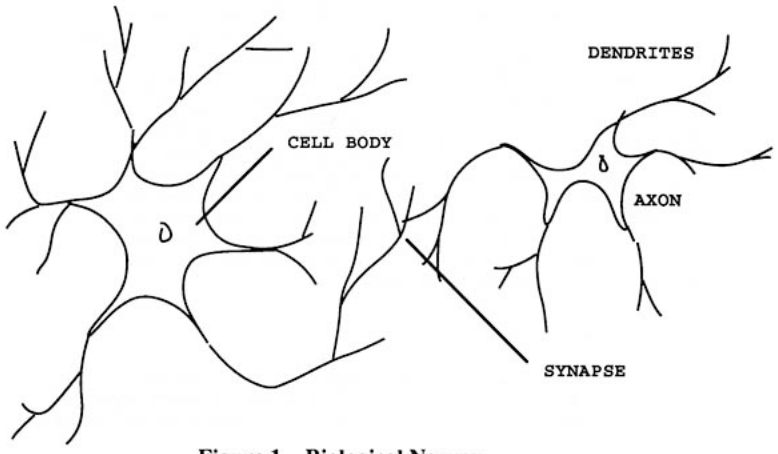
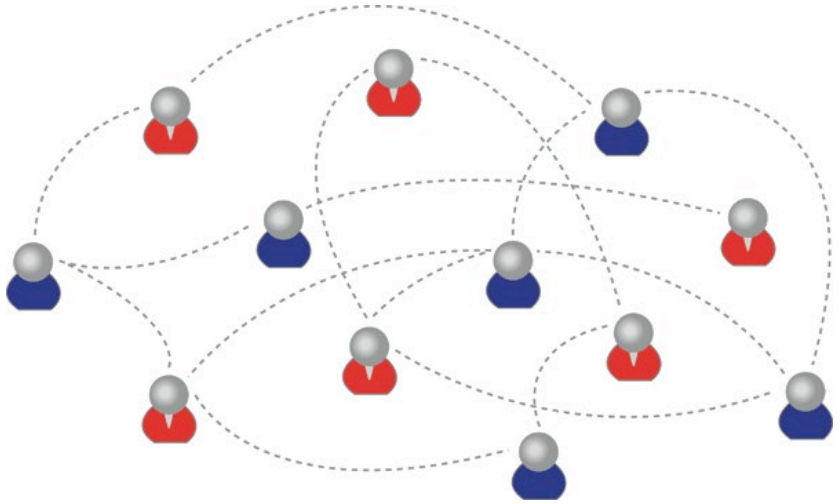


Figure 1. Biological Neuron

We recognize this

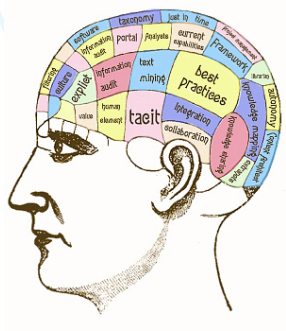


By perfomance in this

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

Personal Knowledge

- Is not ‘constructed’
- You do not ‘make meaning’ for yourself
- It is a matter of organic growth



(Totally *not* what personal knowledge is)

(How do I know this? Research on how neural networks grow,

PLE as Exercise Machine

- A PLE is a tool intended to *immerse yourself* into the workings of a community
- Once immersed, you then *practice* being one of the people characteristic of the community

For example, you would learn philosophy by practicing ‘being a philosopher’ in a philosophical community

Developing personal knowledge is more like *exercising* than like inputting, absorbing or remembering

Your personal growth develops as a consequence of the interactions with that community

The Connectivist Course

Information is not 'taught' in a course offered using a personal learning environment. In the connectivist model of learning, course 'content' is created by the course participants themselves.

Students are not asked to perform any task in particular.

Rather, they are presented with a set of resources (readings, audio or video, email postings) from the instructors and other participants, and may do with these what they please.

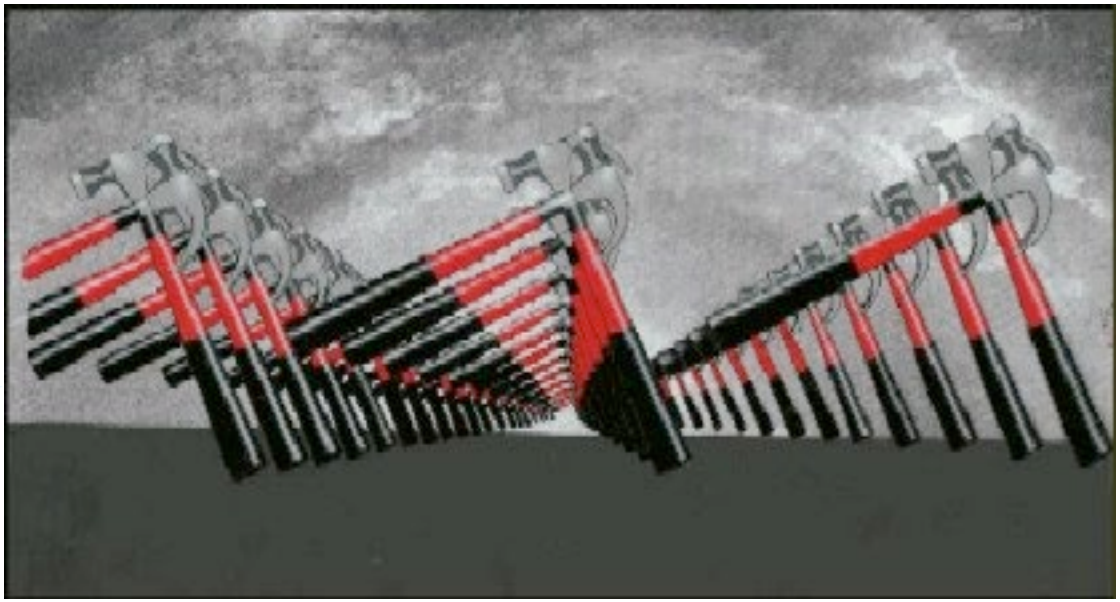
Typically, a student in a connectivist course will:

- read (some of) the readings and listen to or watch some of the recordings
- post comments in threaded discussion forums
- create a blog and post comments and responses
- contribute content to the course wiki

In practice, students have engaged in a wide range of (generally unexpected) activities, such as:

- create a map of course participants
- establish, design and host seminars in a Second Life environment
- create videos of discussions
- Create Google or Yahoo groups
- organize translations of course materials
- create concept maps of course structures
- host live online forums

A connectivist course does not consist of a single identifiable group of people stepping through the same activity.



It is understood and expected that different students will undertake different activities, and that new learning will emerge through the interactions of students engaged in those different activities.

A Connectivist course therefore has two major modes:

1. a creation of an environment (and expectation) of great diversity, creating multiple points of view on an amorphous body of material, domain or discipline
2. creation of new and unexpected knowledge as a result of the interaction of participants from those different points of view

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- http://www.downes.ca

Author

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