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Critical literacies and the challenge of online learning
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Critical Literacies and the Challenge of Online Learning

Stephen Downes, National Research Council Canada

to TESL Canada 2015, lake Louise, Alberta

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http://www.downes.ca/presentation/369

"An image macro of one or more cats. The image's text is often idiosyncratic and grammatically incorrect."

Why is this funny?

We can, as we understand the prehistoric, understand the future, by reading the artifacts.
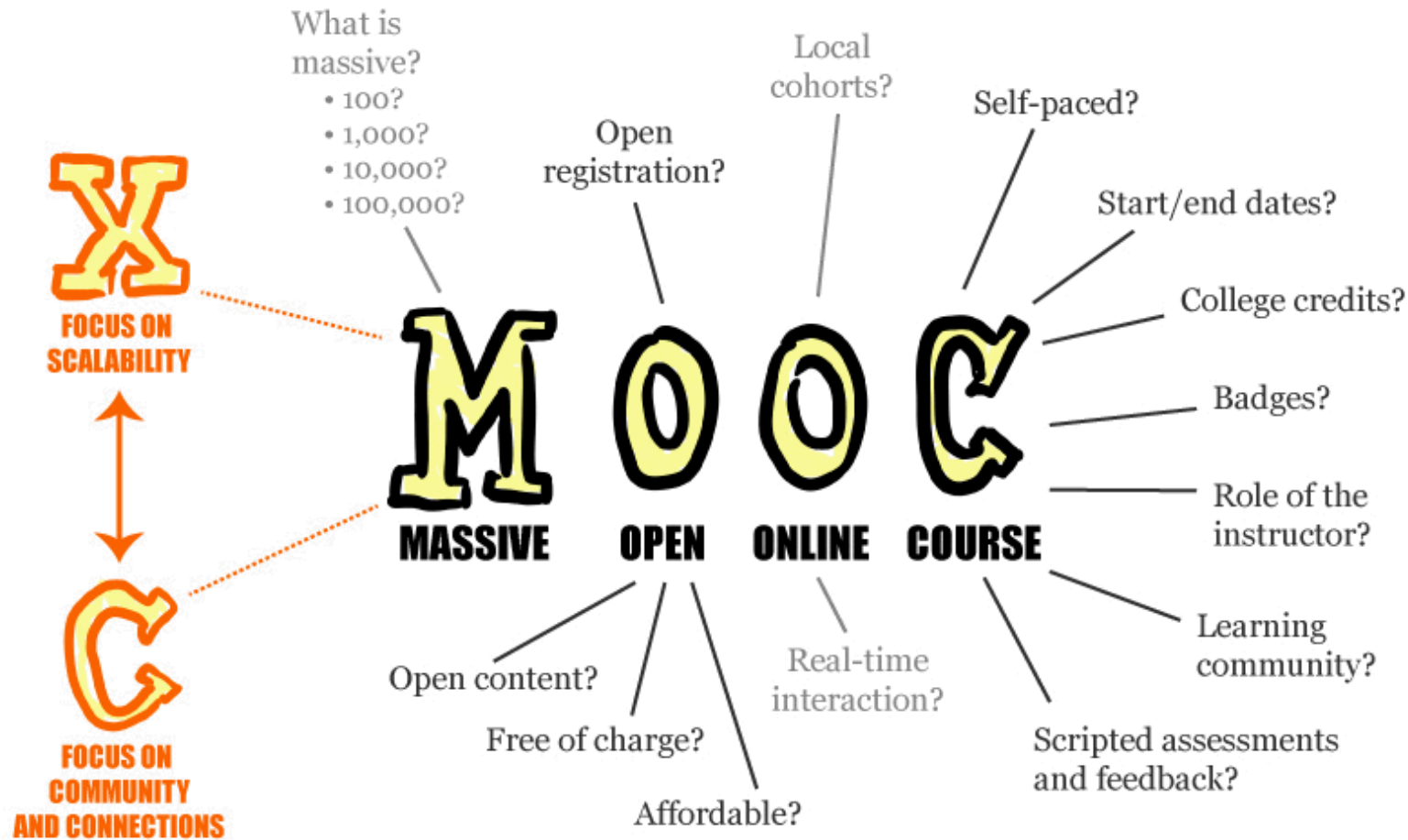
How do we know anything at all?

They are not an accumulation of facts, they are a system or form of organization, a way of seeing the world.
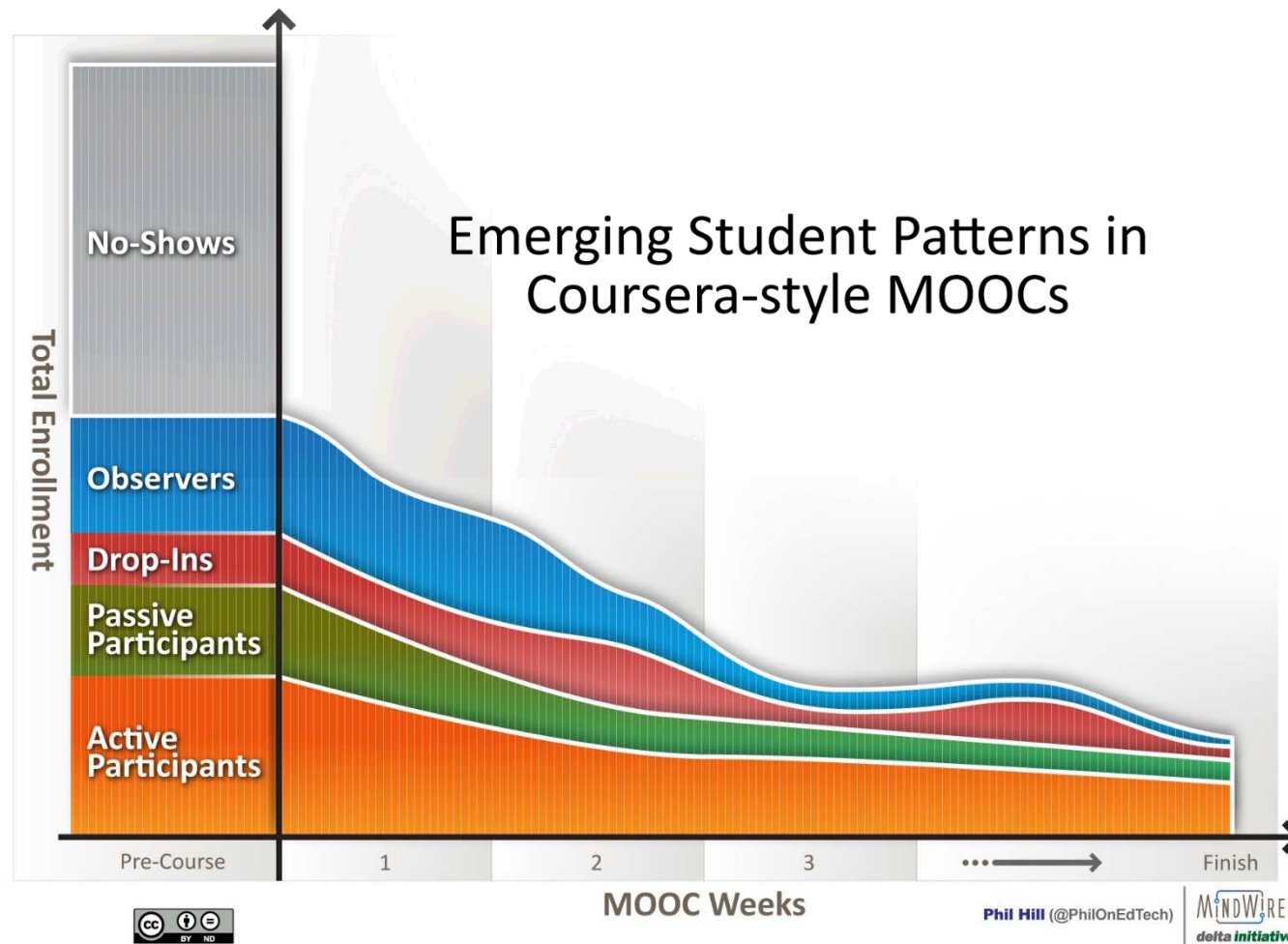
Science, knowledge are like language

'MOOC' stands for "Massive Open Online Course" and were developed in 2008. Examples include Coursera, FutureLearn.

Their MOOCs, our MOOCs

Image: https://en.wikipedia.org/wiki/Massive_open_online_course

Emerging Student Patterns in Coursera-style MOOCs

No-Shows

Observers

Drop-Ins

Passive Participants

Active Participants

Total Enrollment

Pre-Course 1 2 3 ...→ Finish

MOOC Weeks

Phil Hill (@PhilOnEdTech)   MindWires delta initiative

MOOCs have face a storm of criticism – unprepared students, bad pedagogy, lack of educational standards, a failure to engage, and ultimately, dropouts.

Criticisms of the MOOCs

Image: http://mfeldstein.com/emerging-student-patterns-in-moocs-a-revised-graphical-view/

What does it mean to 'complete' a newspaper? What is the proper foundation for a buffet?

A Wider Conception of Learning

What does it mean to be literate?

風 Air/Wind　志 Ambition　有 Be　美 Beauty　生 Birth/Life　も Chaos　子 Child　英 Courage
娘 Daughter　縁 Destiny　火 Fire　怒 Forgiveness　友 Friends　先 Future　順 Gentleness
福 Good Fortune　恩 Grace　楽 Happy　和 Harmony　医 Healing　天 Heaven　信 Devotion
方 Direction　夢 Dream　早 Early　氣 Energy　父 Father　心 Heart　青 Honor

This brings us back to language – what is the 'core' of a language? What are the foundations?
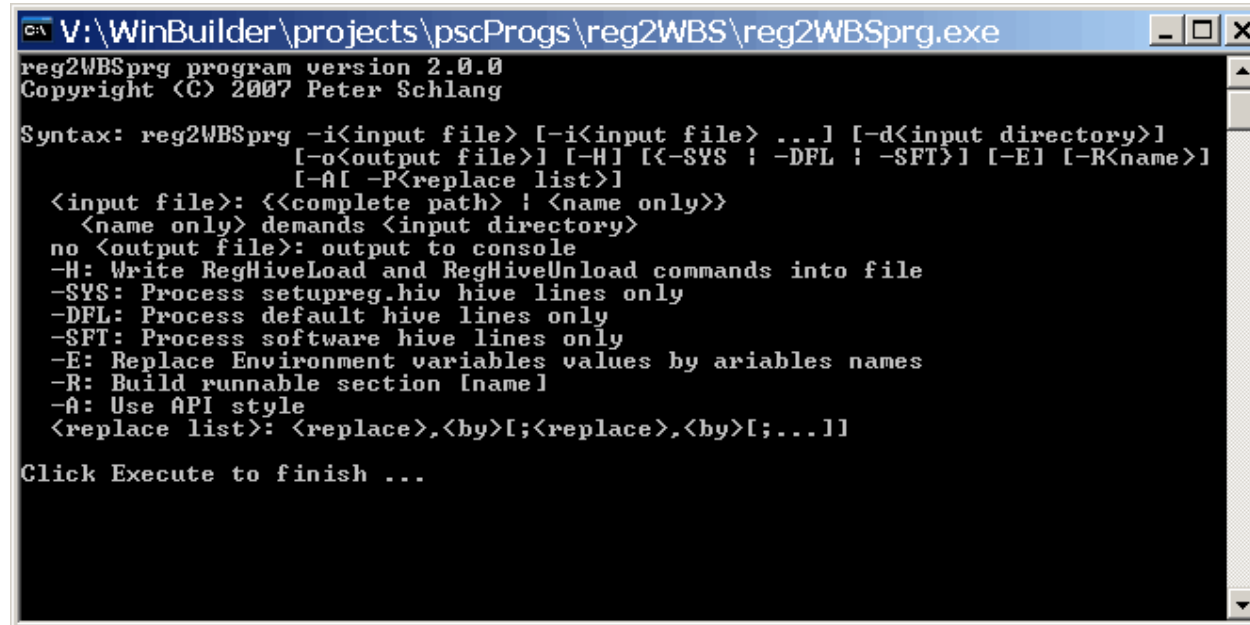
Meaning – it's not just semantics any more

Image: http://www.alegoo.com/pictures7/art-tattoos-2/tattoos-with-meaning-029/

Syntax	Cognition
Semantics	Context
Pragmatics	Change

This is a frame for understanding new media – and for understanding what it is to know, learn, and understand

The Critical Literacies

Syntax

Not just rules and grammar

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

⟦ 🥕 ⟧ = carrot

⟦ 🎳 ⟧ = bowling pin

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)
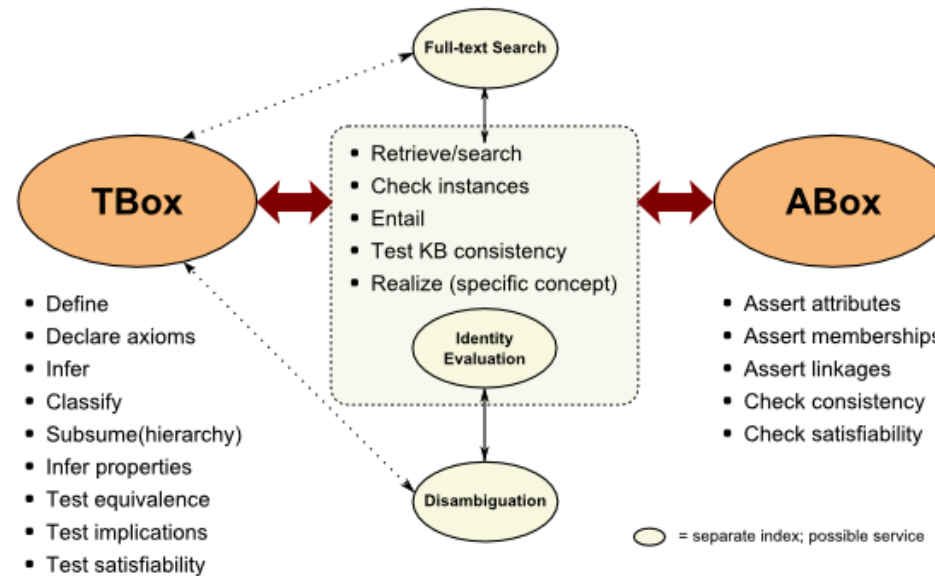• Interrogation (Heidegger) and presupposition
• Meaning (Wittgenstein - meaning is use)

Cognition
reasoning, inference and explanation

- 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)
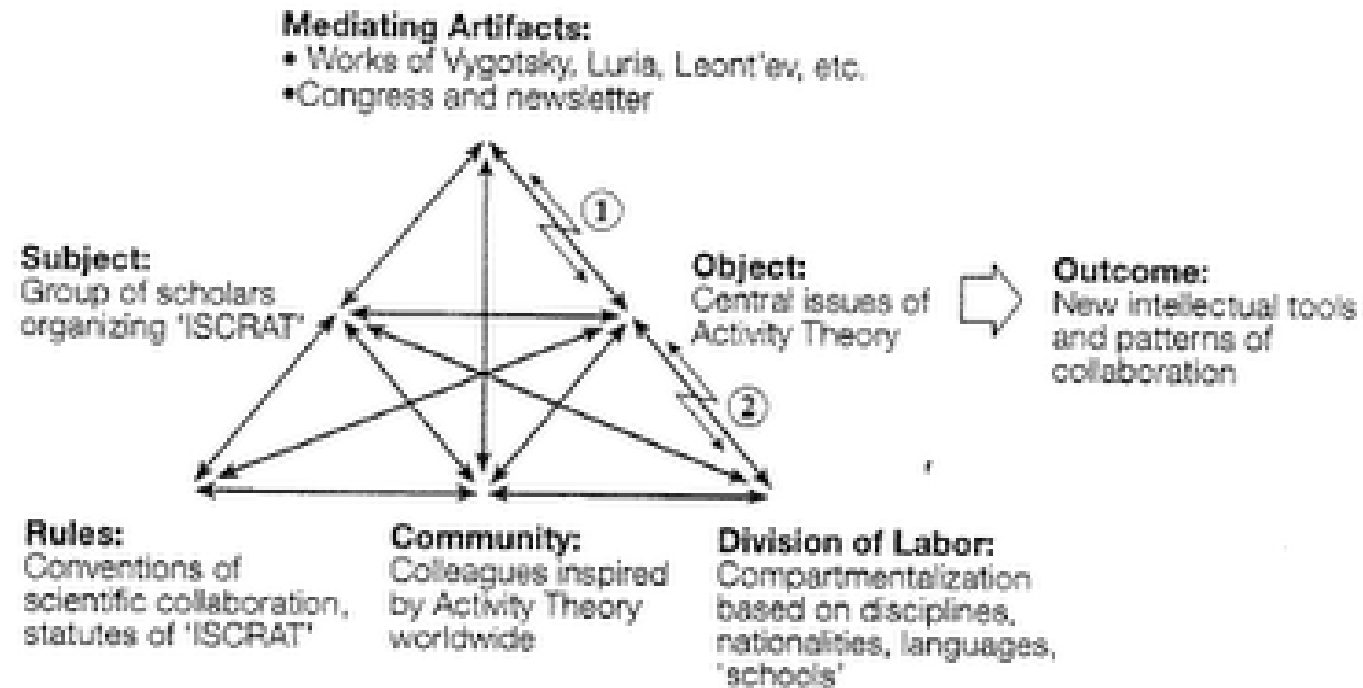
# Context
placement, environment

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

Change

Mediating Artifacts:
- Works of Vygotsky, Luria, Leont'ev, etc.
- Congress and newsletter

Subject:
Group of scholars
organizing 'ISCRAT'

Object:
Central issues of
Activity Theory

Outcome:
New intellectual tools
and patterns of
collaboration

Rules:
Conventions of
scientific collaboration,
statutes of 'ISCRAT'

Community:
Colleagues inspired
by Activity Theory
worldwide

Division of Labor:
Compartmentalization
based on disciplines,
nationalities, languages,
'schools'

- 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
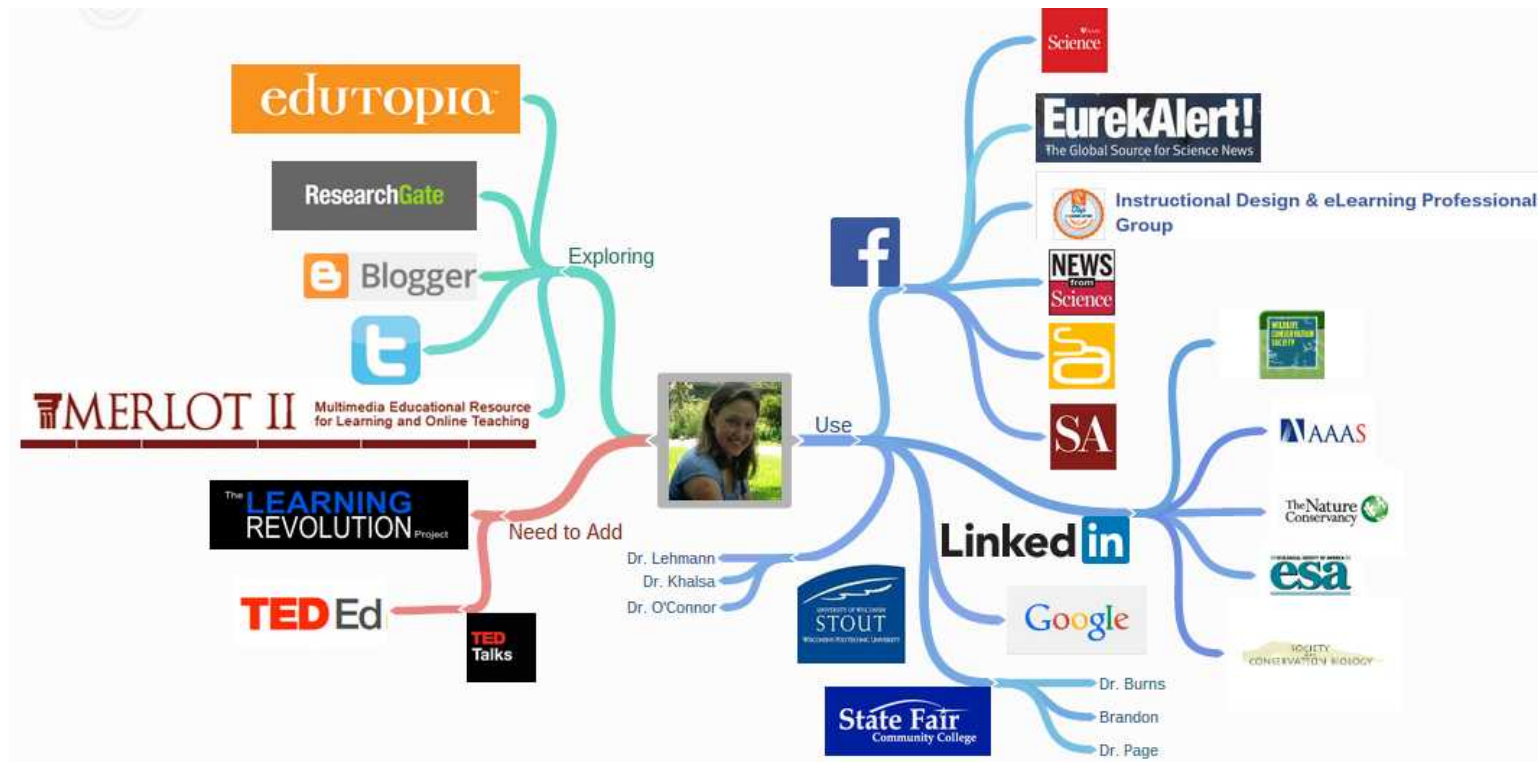- scheduling - timetabling - events; activity theory / LaaN
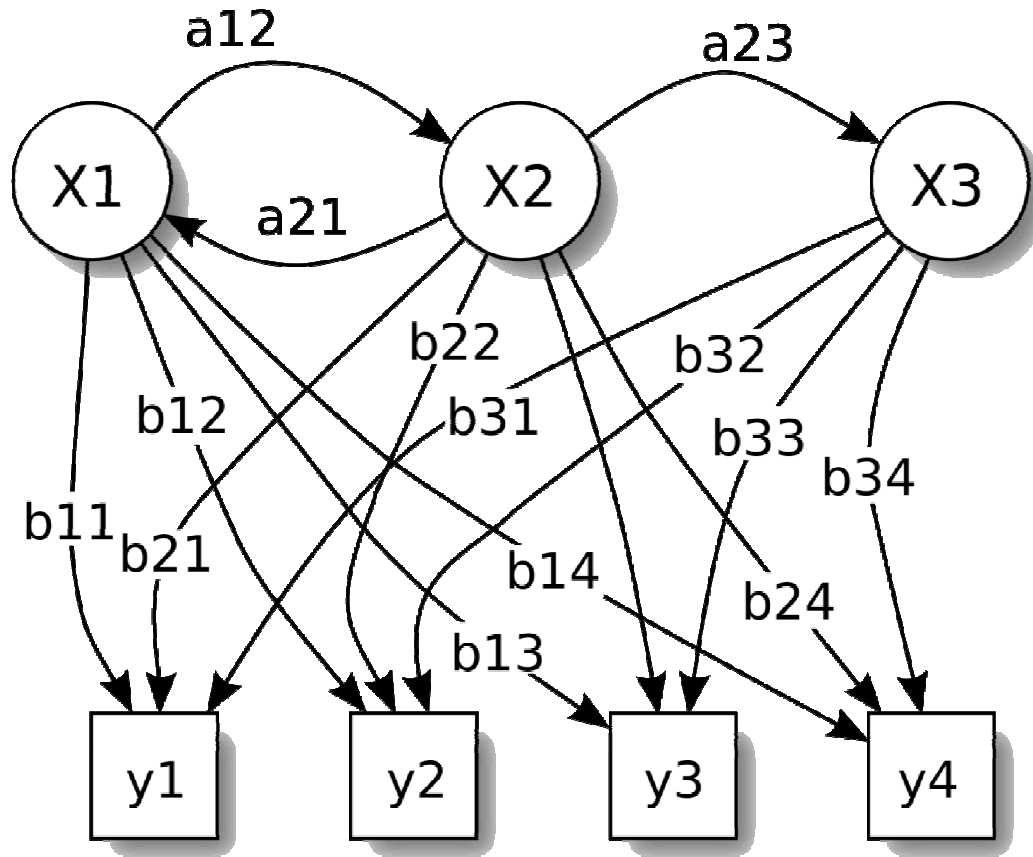
Our conception o
knowledge itself
is insufficient to
account for these
various
dimensions of
literacy.

Knowledge as Recognition

Image: https://en.wikipedia.org/wiki/How_to_Create_a_Mind

Our work at NRC is devoted to creating a linked interconnected *environment* where people can experience and grow.

Learning Environment as a Place to Grow

Image: http://taftportfolio.blogspot.ca/p/personal-learning-environment-ple.html

Stephen Downes

http://www.downes.ca