

# The Entrepreneurial Learner in the Network Age

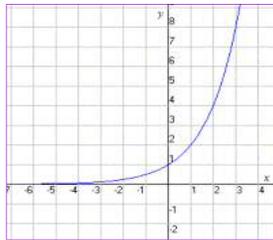
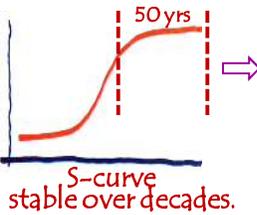


Enabling Scalable learning thru innovation

preamble

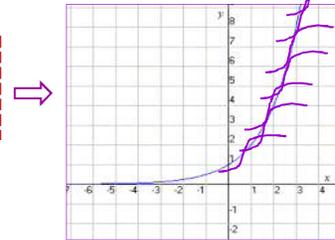
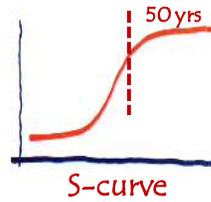
21<sup>st</sup> C infrastructure: no stability in sight driven by continual exponential advances in computation

20<sup>th</sup> C infrastructure



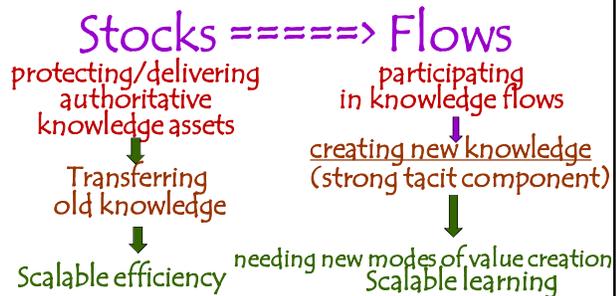
Skills, Social Practices & Institutions evolve around new technologies

21<sup>st</sup> C infrastructure



rapid set of punctuated moves

In a world of increasingly rapid change,  
the half life of a given stock/skill is  
constantly shrinking.



In a world of constant flux  
learning has as much to do with  
creating the new as learning the old  
and hence  
the tacit starts to take on a  
increasing importance



The world just came together so quickly. We  
have little understanding of its true diversity . .  
Tim El-Hady (Aspen 2010)

The past as a solution set is no longer a viable  
option. We need a new tool set.  
John Rendon (Aspen 2010)

Yet, we can still learn from the past.

quiz

What do these guys have in common besides being <sup>a bit</sup> creative & out of the box thinkers, doers and tinkers??

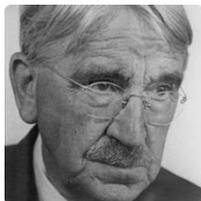


They all went to Montessori schools

Our heroes  
who really understood learning environments



Maria Montessori



John Dewey

but

Their methods didn't scale!!



They were 75 years ahead  
of their time!

Their methods didn't scale!!



They were 75 years ahead  
of their time!

But they can now.



So how is scaling now happening?



Let's look at some examples

affording curiosity in a  
constantly changing world.



Ages: 2 & 5

## Harry Potter Worldwide Movement

Fanfiction.com

65,000 stories & podcasts



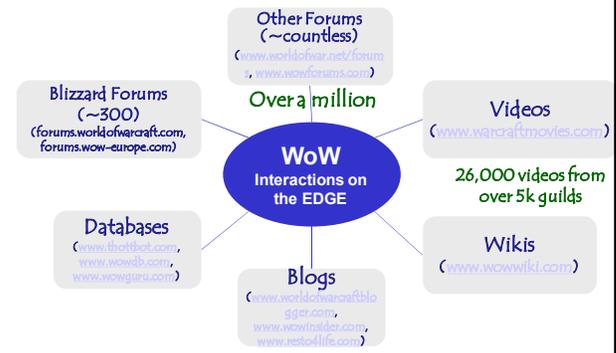
forums  
wikis  
videos  
podcasts  
contests

### Fanfiction.net

6,314 communities of interest  
1,774 discussion forums  
386,000 stories archived

Are we prepared for students used to creating their own global collective, intertwined with a networked imagination?

## WoW's knowledge ecology helps players gain & create knowledge faster



## Managing Knowledge via Guilds

- > Structure of filtering and feedback loops
  - Problem: Knowledge is constantly changing
  - Problem: Too much information to reliably manage. (around 12k new ideas just last night.)
- > Guild structures allow for small groups (20-200) that self-organize in order to seek out, test, filter & disseminate information for the high end raiders.

## Personal Dashboards

World of WarCraft is way too complicated to play without complex analysis tools and dashboards.

These dashboards are nearly always handcrafted by each player and are key to masterful play.

social life & social networks of learning  
Ryerson College



Chris Avenir organized a 146 member study group on Facebook called: "Dungeons/Mastering Chemistry Solutions"

But be aware:  
implementing new tools sets  
can be problematic

Chris was thrown out of Ryerson for  
inventing/using this new tool for learning

3 "reasons" for the case against him

- . Learning should be hard.
- . There is no structure of regulation for online behavior and that makes it incompatible with academic work.
- . It is our job to protect academic integrity from any threat.  
i.e., unless learning is hard and is directed by others, it fails to meet the standard for academic rigor.

But (and thank heavens):  
In March of 2008 Avenir was cleared of all charges.

"In a seven-page ruling, the engineering faculty appeals committee found no proof the Facebook group led to cheating." Students had not been using the Facebook to cheat, instead they had used it as a collaborative problem solving tool.

## Open Source as a Participatory Learning Platform

### The Open Source Movements:

- ◊ writing code to be read
- ◊ engagement thru useful additions
- ◊ social capital matters

A form of distributed situated learning  
(cognitive 'apprenticeship')  
enculturating to a virtual  
community of practice



Peer critique, open discussion - over a million folks

## The Rise of the Pro - Amateur Class

amateur \_\_\_\_\_ professional  
*from Latin - amator : lover*

Dobsonian 10" f/4.9



+   
PC164C  
ccd camera

+ Internet  
Blogs  
BBSs  
Yahoo groups  
Data bases

a new form of scalable mentorship is emerging

## A twist on scaling - scaling with 1 on 1 virtual mentoring



Could we create an eHarmony -  
an optimal matching algorithm  
for 1-1 virtual mentor in Math/Chess/StarCraft?



Entrepreneurial Learners are  
makers and tinkers



Yes – critical thinking is important but  
can be augmented by ground truth –  
*Does it work??*

Where knowledge & practice meet.

## A Blended Epistemology

*Homo Sapiens* ↔ *Homo Faber*  
man as knower      man as maker  
↓  
content/things



A bit like Montessori

## A Blended Epistemology

*Homo Sapiens* ↔ *Homo Faber*  
man as knower      man as maker  
↓  
content/things &  
context

Given that meaning emerges  
as much from  
context as content  
new dimensions  
to the creation of meaning are opened.



Ah, the essence of remix..



Ah, let me change the music of a film and I can alter not only its meaning but also what you actually "see".

Ah, in a fluid world judgment and critical thinking is more important than ever... and librarians as mentors become even more important.



We used to focus on content, assuming context was relatively stable. But in the world of social media & networked knowledge context is more fluid.



Consider blogging & remix.

**Blogging as joint context creation**

"The blogger is—more than any writer of the past—a node among other nodes, connected but unfinished without the links and the comments and the track-backs that make the blogosphere, at its best, a conversation, rather than a production."

Jazz and blogging are intimate, improvisational, and individual—but also inherently collective. And the audience talks over both.

Andrew Sullivan – Atlantic Monthly/ The Daily Dish

**Too Big to Know:**  
By David Weinberger (Jan, 2012)

"We used to know how to know. We got our answers from books or experts. We'd nail down the facts and move on. We even had canons."

"But in the Internet age, knowledge has moved onto networks. There's more knowledge than ever, but it's different. Topics have no boundaries, and nobody agrees on anything."

**We, as learners, need new strategies and tools**

We learned in order to belong<sup>1</sup> (CoPs)



We belong<sup>2</sup> to learn

Identity ---> personal agency

## Collectives

Collectives are made up of folks who share an individual's personal interests (e.g. gardening, astronomy). They make no demands on its users, no tests or lectures, yet learning happens all the time.

Collectives are focused on enabling individual agency. They are a site for both play and imagination where the personal can mesh with the collective, transforming/enriching both.

They have almost unlimited scale via social networks and at their core rest on peer & master mentoring.

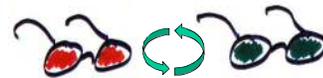


Sounds cool but aren't we still just pouring/creating new wine for old bottles?

In a constantly changing world sometimes we must be prepared to craft new bottles as well.

## A Belief

In a world of constant change entrepreneurial learners must also be willing to regrind their conceptual lenses.



And for this an essential thing is:  
play

## Homo Ludens

a highly nuanced concept of play

- as in permission to fail, fail and fail again and then get it right: think of extreme sports...
- as play of imagination – poetry
- as in an epiphany – suddenly falling in place as in solving a riddle.



Learning as riddles,  
leading to a reframing or  
re-registering of the world.

Play is the progenitor of culture & innovation.

Johan Huizinga

## A Simple Reframing

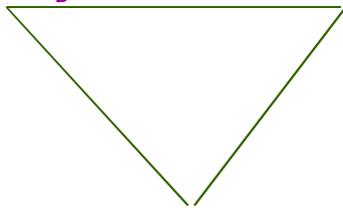
A black dog is sleeping in the middle of a  
black road that has no streetlights and  
there is no moon.

A car coming down the road  
with its lights off steers around the dog.  
How did the driver know  
the dog was there?

## Three different epistemologies

homo sapiens  
knowing

homo faber  
making



playing  
homo ludens

## Blended Epistemologies

homo sapiens  
knowing

homo faber  
making



via  
tinkering

embracing change

playing  
homo ludens

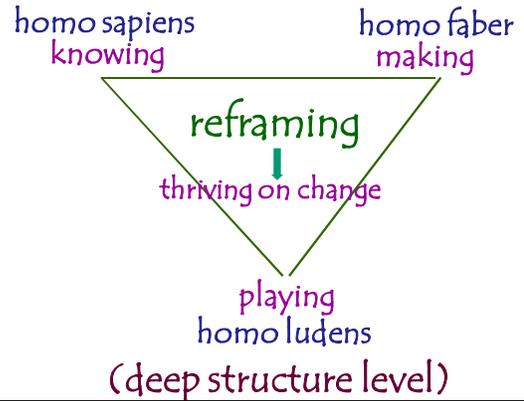
(surface level: repertoire of moves)

## But Tinkering can be more

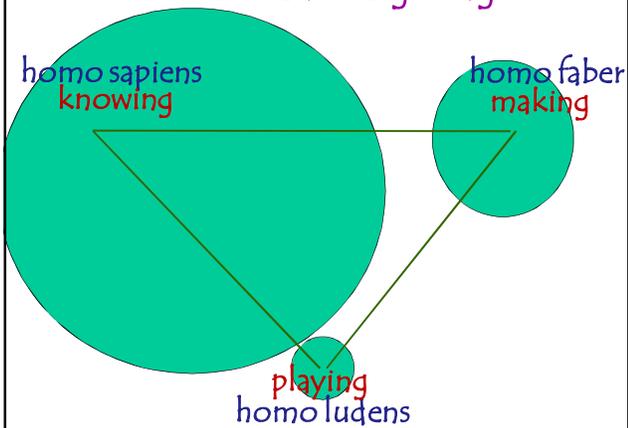
developing a gut 'feeling' for systems  
 know how/what can be pushed around,  
 rearranged, repurposed, modified  
 developing an intimate familiarity with  
 material at hand  
 embodied immersion  
 developing an instinct  
 deeply situated

And can lead to:

## Blended Epistemologies



## Our current weighting:

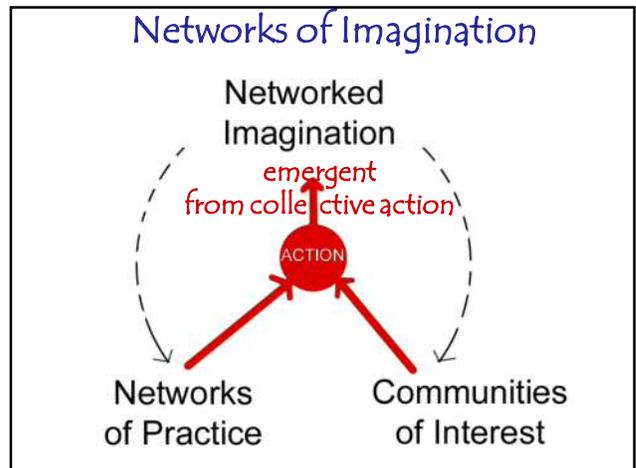
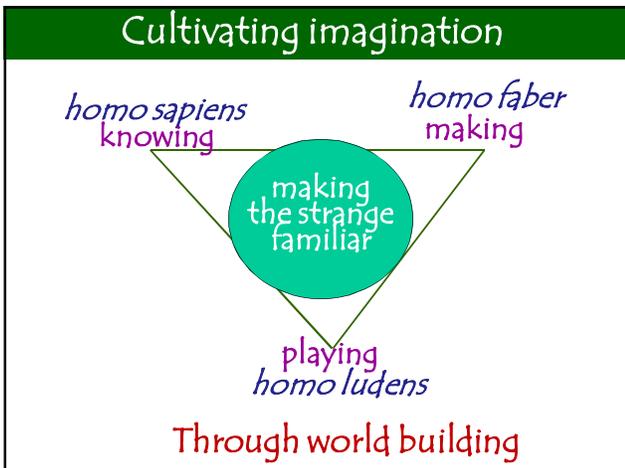
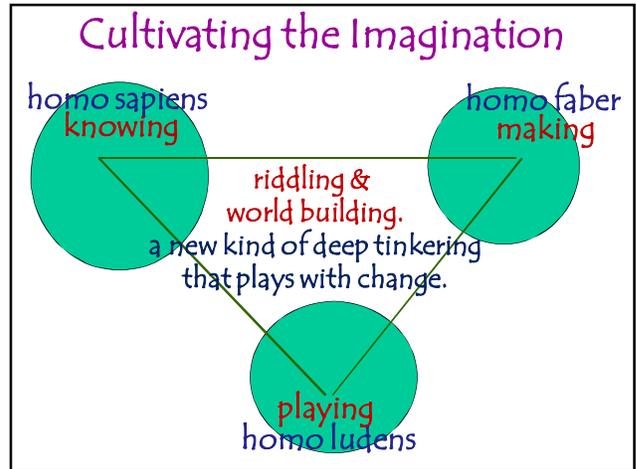
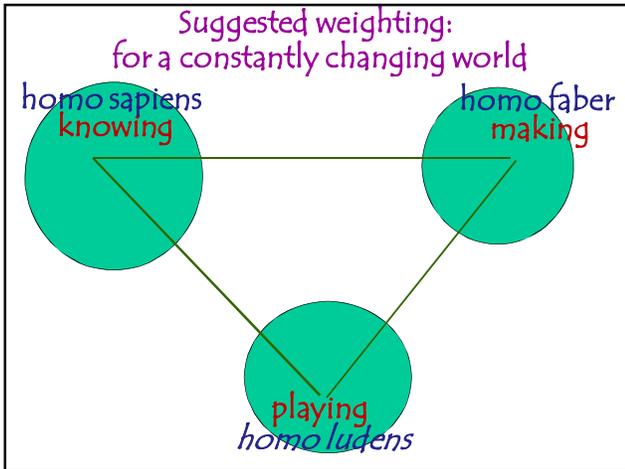


## Important Shifts

what ~~knowing~~ → what + where

things ~~making~~ → things + context

sense making ~~playing~~ → reframing



Let me end by repeating myself

In a world of constant change  
entrepreneurial learners must be willing  
to regrind the conceptual lenses  
with which they make sense of the world.



And for this an essential thing is:  
play

Let me end by repeating myself

In a world of constant change  
entrepreneurial learners must be willing  
to regrind the conceptual lenses  
with which they make sense of the world.



play is a space of  
safety and permission.

oops

Brief Epilogue



jsb – what are u doing? This is a  
talk, not a book??

Back to the Future –  
the one room school house



The global one-room school house:  
Networks of Imagination



Thankyou



Sketches by  
Susan Haviland

A New Culture of Learning  
– cultivating the imagination  
for a world of constant change.

Douglas Thomas & JSB