Future of Work & a New Culture of Learning

Creating the resilient, resourceful, inspired learner.

The past

19th, 19th, 20th C infrastructure
relative stability
Skills lasted a lifetime.
Career paths were clear

The era(s) of

The Big Shift Happened

20th Century Push-based model of education

20th Century model of education

21st C infrastructure: no stability in sight
driven by continual exponential advances in computation...

20th C infrastructure
S-curve stable over decades.
More realistically

Social, Work & Learning Practices evolve around new technologies

The half life of many stocks/skills is constantly shrinking. Perhaps as low as 5 years.

Too Big to Know:
By David Weinberger

"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 need new strategies and tools for learning/working/sensemaking & creating meaning.
Welcome to the new white water world. 
= increasingly fast, radically contingent & hyper connected

What kind of learners do we need for this white water world??

Participation & the embodied mind
Reading context really matters!! (and that is a skill)

Participation & the embodied mind
Hand & Head the lived experience

But most important!
Knowing your own center – authenticity re-conceived
We also need
Entrepreneurial Learners
Which is NOT the same as being an entrepreneur!

Dispositions of an entrepreneurial learner.

› Always questing, connecting, probing.
› Deeply curious and listening to others.
› Always learning with and from others.
› Reads contexts as much as content.
› Thrives outside of the formal curriculum
› Reflects on performance with the help of cohorts – reflective practitioner.

YES, we need:
New approaches to learning,

Ah, perhaps a blended epistemology (i.e., ways of knowing) for a white water world.

A Blended Epistemology

Homo Sapiens 👈 Homo Faber
man as knower man as maker
content/things

Thank you, John Dewey!

A Blended Epistemology
but the tools of homo faber are also changing!!

Homo Sapiens 👈 Homo Faber
man as knower man as maker
content/things & context

Shift: content -----> content + 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”!!!

In a fluid world, judgment and critical thinking is more important than ever...

reading/interrogating context is king especially given that many of the millennials (or post) believe there are no authoritative sources!

Then, let’s go a step further..

Adding *homo ludens* man who plays

- *homo sapiens* man who knows
- *homo faber* man who makes
- *homo ludens* man who plays

**Homo Ludens**

A highly nuanced concept of play

- as in permission to fail, fail and fail again and then get it right
- 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 of “the world”. 
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?

A less simple riddle – reframing

What has no beginning
And has no end.
Goes on forever.
No one can travel its whole length
And here’s one hint more:
It takes refuge in a figure eight.

Can you feel the play of imagination, here?

Extending the Blend even further

homo sapiens
man who knows

homo faber
man who makes

homo ludens
man who plays

probing & pushing boundaries
invention within a space of rules
deep tinkering

Interrogating context as a form of 'play'
Like a detective
Like a historian — unwinding deep entanglements

“Inspector Gregory, to whom the case has been committed, is an extremely competent officer. Were he but gifted with imagination he might rise to great heights in his profession.”

SHERLOCK

www.sherlockology.com

SHERLOCKOLOGY
But how might we teach differently?

Let's look at another example. Cogswell Polytechnical

The Gogswell Mantra

Turning Passion Into Practice

A model for college in which each student discovers and develops their own unique balance between art, engineering and play.

Three core courses that surprised me:

1) life drawing (2 semesters)
2) clay sculpture (1 semester)
3) sound sculpture …

Remember – this is NOT an art school but a polytech – computer sci/engineering/game design – for silicon valley companies.
Explicit Tacit Learning -to-be dimensions of knowledge (Michael Polanyi)

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:

And agency is what today's students seek!
And agency is what today’s students seek!

**homo sapiens** knowing  **homo faber** making

**agency**

**playing**

**homo ludens**

Key to the future of work — reading context & constantly innovating for coping with the un-usual.

**The Big Picture**

**Our current weighting:**

**homo sapiens** knowing  **homo faber** making

**playing**

**homo ludens**

**Suggested weighting:**

for a constantly & rapidly changing world

**homo sapiens** knowing  **homo faber** making

**playing**

**homo ludens**

**Cultivating the Imagination**

**homo sapiens** knowing  **homo faber** making

**riddling & world building.**

a new kind of deep tinkering that plays with change.

**playing**

**homo ludens**

**The Bigger Picture**
Garry Kasparov
Grand Master

Deep Blue

1996 vs 1997

Freestyle Chess tournament
The winners racing with the machine
as a generative dance between us and machine.

Zack Stephen and Steven Cramton

Can we include a new kind of
generative dance
between us and AI/IA
in this new blended epistemology?
‘Us’ being student or teacher or all of us in a 21st C workscape.

Let’s see.

homo sapiens + IA
man who knows

homo faber + IA
man who makes

homo ludens + IA
man who plays

homo sapiens + IA
man who knows

homo faber + IA
man who makes

homo ludens + IA
man who plays

Amplified learning between human/machine

Amplified learning between human/machine

Google
youtube
Medium
Wikipedia

>>
Amplified learning between human/machine

homo sapiens + IA  man who knows

homo faber + IA  man who makes

homo ludens + IA  man who plays

Amplified learning between human/machine

e.g. mathlab tool

and intelligent assistants
for guidance/coaching/
debugging/critiquing/…

Amplified learning between human/machine

Alpha Go

virtuosity
Cognitive collaboration

AI ---> IA

homo sapiens + IA
man who knows

imagination

homo faber + IA
man who makes

homo ludens + IA
man who plays

Focusing on the individual *qua* individual

Cultivating a blended epistemology with human/machine imagination

homo sapiens + IA
man who knows

homo faber + IA
man who makes

homo ludens + IA
man who plays

Indwelling across a distributed community of practice – creating a networked imagination

And finding a way to fuse the arts, humanities & sciences creating a new kind of alloy.

Fusion creates alloys that, when cooled, have mechanical properties that will differ significantly from those of their individual components.

Indwelling across a distributed community of practice – creating a networked imagination

The workspace of the future where continuous learning and working deeply comingle.

Thank you