

Working/Learning/Leading in the Exponential Age



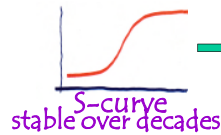
The Game is changing – are we?

as business schools/ as leaders/as value creators

Push Economy of the 20th Century



20th century infrastructure drove organization architectures where *Scalable Efficiency* was the holy grail.



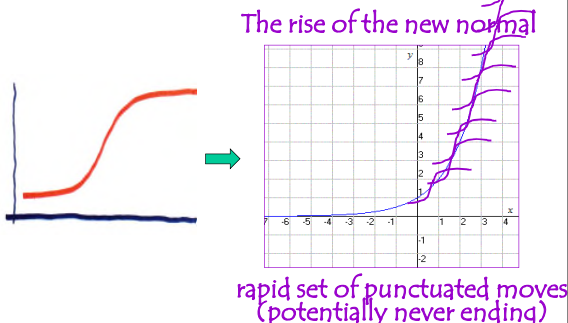
- predictable
- hierarchy
- control
- organizational routines
- minimize variance

This is the world
we built our practices
around.

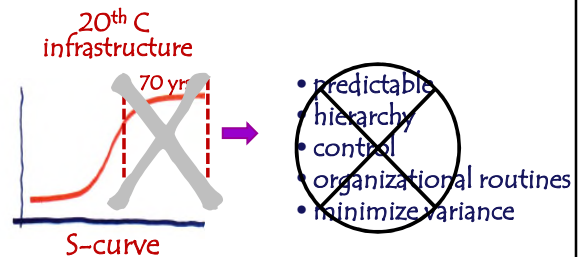
Our management practices and
the world we prepare(d) our students
to thrive in..

The Big Shift Happened

The 21st C infrastructure is driven by the continual exponential advances of computation, storage & bandwidth, with no stability in sight!!



yesterday's best practices
are rapidly becoming outmoded.



From 20th C Push to 21st C Pull

Today, the game is different.

for

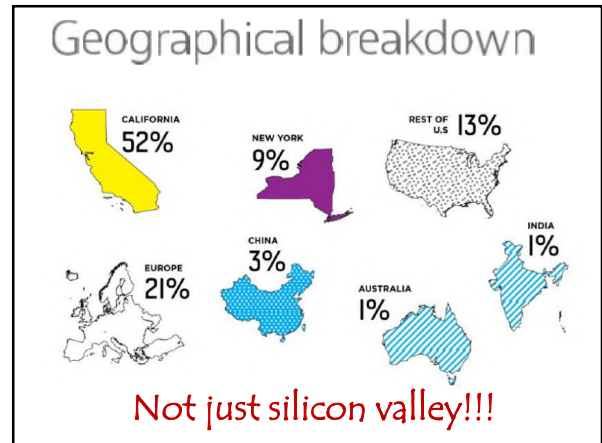
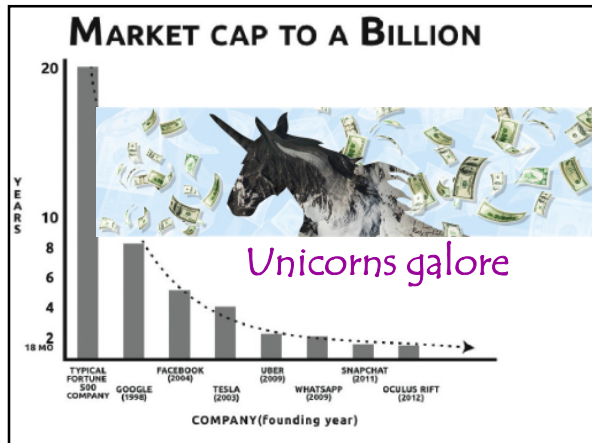
Corporations and how they work

Students and how they learn

Universities and how we teach

And the rate of change
won't be slowing down

what this means
for business?
HOW BUSINESS IS
CHANGING



Rate of Market Growth

Time it took to reach 50 million users

- Radio – 38 yrs
- Television – 13 yrs
- Internet – 4 yrs
- Facebook – 3.5 yrs
- Instagram – 6 months
- Angry Birds – 35 days

The emerging world of 1000 fold increases

- big data,
- cloud computing,
- mobile,
- social networks
- cognitive computing
- augmented reality
- iot
- iiot

Now add the speed of product deployments

Speed of software deployments
(each deployment is viewed as an experiment)

DEPLOYMENTS AT AMAZON.COM

Guess at the mean time between worldwide deployments

Speed of software deployments
(each deployment is viewed as an experiment)

DEPLOYMENTS AT AMAZON.COM

11.6s	1,079	10,000	30,000
Mean time between deployments (weekday)	Max number of deployments in a single hour	Mean number of hosts simultaneously receiving a deployment	Max number of hosts simultaneously receiving a deployment

amazon

in a world of increasingly rapid change, the half life of a given stock/skill is constantly shrinking
(perhaps down to five years for many)

Stocks =====> Flows

protecting knowledge assets participating in knowledge flows *

↓

creating new knowledge

↓

And much of it is tacit

in a world of increasingly rapid change, the half life of a given stock/skill is constantly shrinking
(perhaps down to five years for many)

Stocks =====> Flows

protecting knowledge assets participating in knowledge flows *

Scalable efficiency Scalable learning

what this means for education?

HOW EDUCATION IS CHANGING

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." (and the context is fluid)

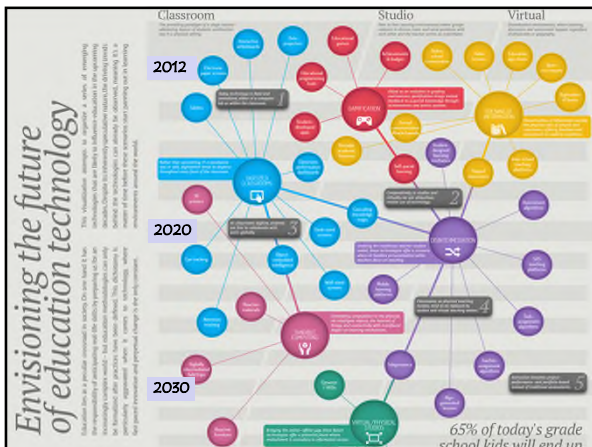
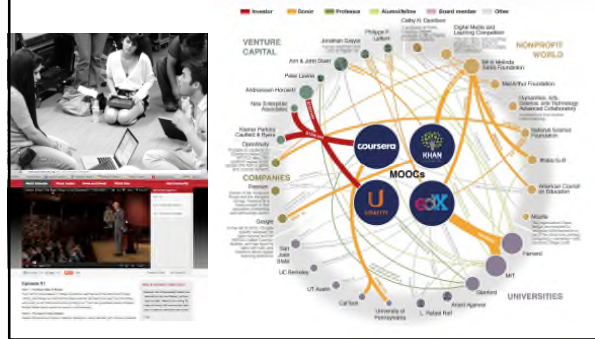
"In the future, it seems, there will be no fixed canons of texts and no fixed epistemological boundaries between disciplines, only paths of inquiry, modes of integration, and moments of encounter."

Carla Hesse
Professor of History
UC Berkeley

Disruptions galore.



we have new tools and mechanism and we can invent more



First let's look at some informal models that might generalize to being hybrids with millennials in mind.



Some interesting precedents to stimulate our imagination around future schools of business. Can we think more radically?

initially collected and analyzed for designing the university in 2033

Shaolin Monks
World of Warcraft
Minerva

Ann Pendleton-Jullian

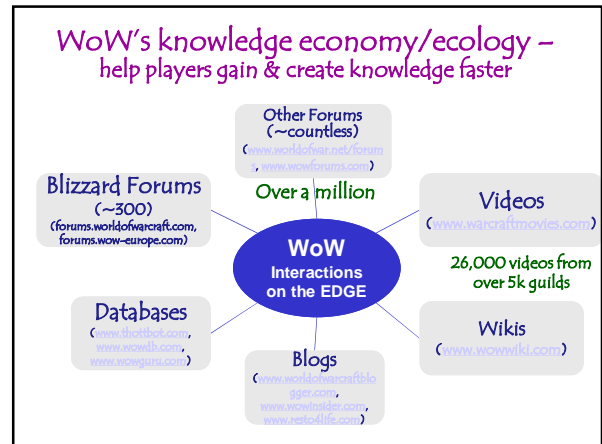


World of Warcraft

A massively multi-player online game : MMOG




What?? Are YOU kidding me?
First monks and now WoW!



The Skills of a Guild Master

- ◇ Creates a vision and a set of values that attracts...
- ◇ Finds, evaluates and then recruits players that have a set of diverse skills and with fit with your norms.
- ◇ Creates a platform for apprenticeship - newbies
- ◇ Orchestrates group strategy and governance
- ◇ Creates, sells and adheres to the governance principles for the guild and adjudicates disputes.



Wow – aren't these the fundamentals of leadership.



InformationWeek
reports

Chief Of The Year

Gillett had to pay down Starbucks' "technology debt"

Minerva: A New Kind of Higher Education



What is new (especially in USA)

Evolving a science of learning
focusing on habits of mind
and related core principles and mechanisms
and putting them into play systematically
In a highly instrumented way.

Stephen Kosslyn

Stepping back how to look differently

Three quite different era required quite different learning strategies & ways of leading

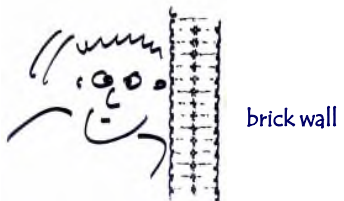
Industrial Age	Digital Age	Emerging Networked Age
		

Leadership skills for a white water world
A whitewater kayakers, skillfully reads the currents & disturbances of the context around him interprets the flows for what they reveal of what lies beneath the surface and leverages the flows for accelerated action.

Given the relentless pace of change & disruptions.
Scalable learning & incrementalism may no longer suffice!
Now, we must also be willing to reframe & reground our conceptual lenses, often.

The Great Challenge

changing { one's own / an institution's } beliefs



brick wall

Innovation is hard but institutional innovation is really hard!

a dramatic example that opened my eyes

JSOC in Iraq in 2003 was running 10 operations/month
When McChrystal became its head



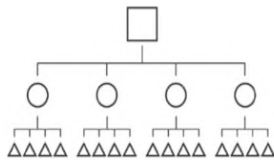
General Stanley McChrystal

JSOC in Iraq in 2003 was running 10 operations/month
Two years later, he had radically transformed it to running 10 successful operations/night

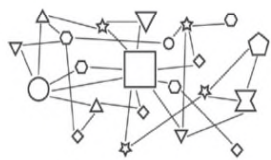


General Stanley McChrystal

What happened?

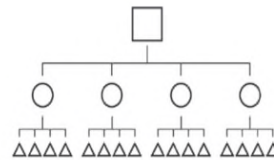


What we were designed for

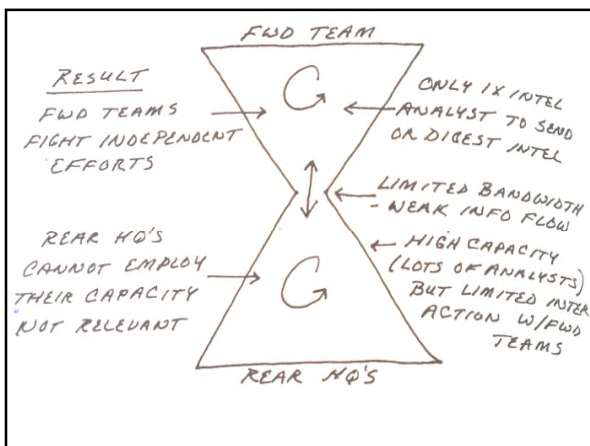
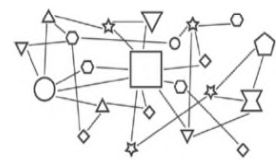


What we were facing

It takes a network to fight/compete with a network



A radical organizational reframing was call for!



- ① NEED TO RAPIDLY INCREASE BANDWIDTH TO/FROM FWD TEAMS - CONNECT THEM TO REAR HQ'S
- ② NEED TO REDISTRIBUTE INTEL PERSONNEL TO BALANCE WORKLOAD
- ③ NEED TO TIE FWD TEAMS + REAR HQ'S INTO A SINGLE FIGHT

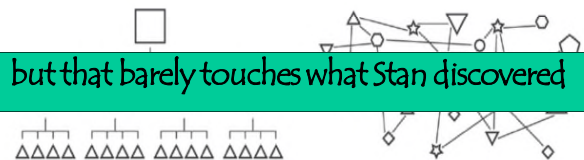
shoulder to shoulder
(analyst/operative)

Deep comingling of practices →
The joint absorption of tacit knowledge

Mechanism:
Blending Intelligence and Operations
through joint work on
“pattern-of-life” analysis

Shoulder to shoulder learning
can be amazingly powerful
for amplifying informal
learning practices
for a white water world.

It takes a network
to fight/compete with a network



In McChrystal's words:

The organization as a rigidly reductionist
mechanical beast is an endangered species. The
speed and interconnected nature of the new
world has rendered it too stupid and slow to
survive....

the speed and interdependence of our current
environment means that what we cannot
know has grown even faster than what we can
comprehend...

“I began to view effective
leadership in the new
environment as more akin to
gardening than to chess”

Chess Master To Gardener:
The Leaders We Now Need

“the mental transition from heroic leader
to humble gardener was not an easy one.

I needed to shift my focus from moving
pieces on the board to shaping ... and
tending to an ecosystem.”

General McChrystal

New lenses for the whitewater world

McChrystal understood

The world of complexity:

- that everything you do alters the system because of complex interdependencies
- that you cannot learn about the problem without action – without trying solutions
- that all problems occur in social contexts that usually overwhelm any technical complexities

Complicated ≠ Complex

In essence – we have moved from the world of complicated systems to complex systems – densely interconnected & entangled

“No significant problem is an island to itself... where the unintended consequences to an action can often overwhelm the intended consequences.”

apj

THROUGH THE LENS OF COMPLEXITY

Think Clouds, not Clocks

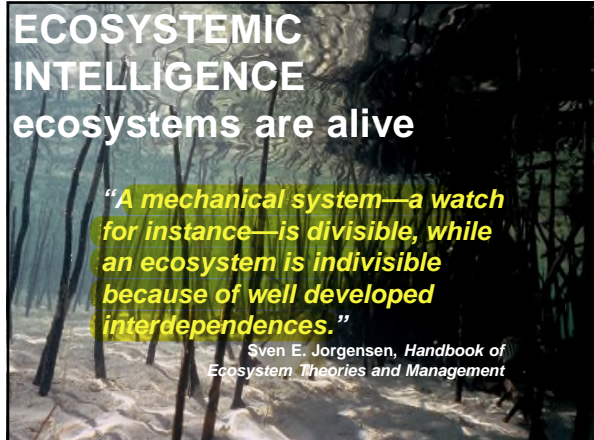
“...To understand a clock you can take it apart, its individual pieces and you study the pieces and then you can understand how a clock works. A cloud – you can't take apart a cloud. A cloud is a dynamic system. A cloud you can only study as a whole.”

Think Clouds, not Clocks

Karl Popper, the great philosopher, said all problems are either clouds or clocks..

One of the problems we have as a culture is we take clouds & pretend they are clocks .

In an era of complexity & wicked problems we need to move from problem solving as an engineering approach to working from an eco-systemic perspective.



With this kind of tool set
big data,
cloud computing,
mobile,
social networks
cognitive computing
Breaking frame and re-imagining
what might be possible
by us and by our students
is now our golden moment.

Chess Master To Gardener:
The Leaders We Now Need.

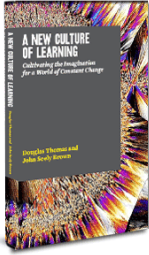
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not just tenders of plants

Chess Master To Gardener:
The Leaders We Now Need.

But gardeners who are ecologists
not just tenders of plants
and the schools that need to
scaffold the emergence of these
leaders

Thank You



Douglas Thomas & JSB



Ann Pendleton-Jullian
& JSB

THE END