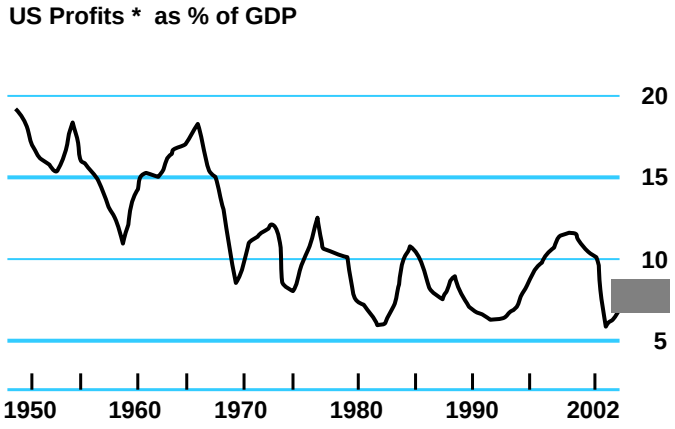
Accelerating Innovation Thru Knowledge Management

creating, finding, refining & sharing knowledge assets

Isn't this now more important than ever to compete in the global economy?

Yes!!!

Intensifying Competition Erodes Profitability

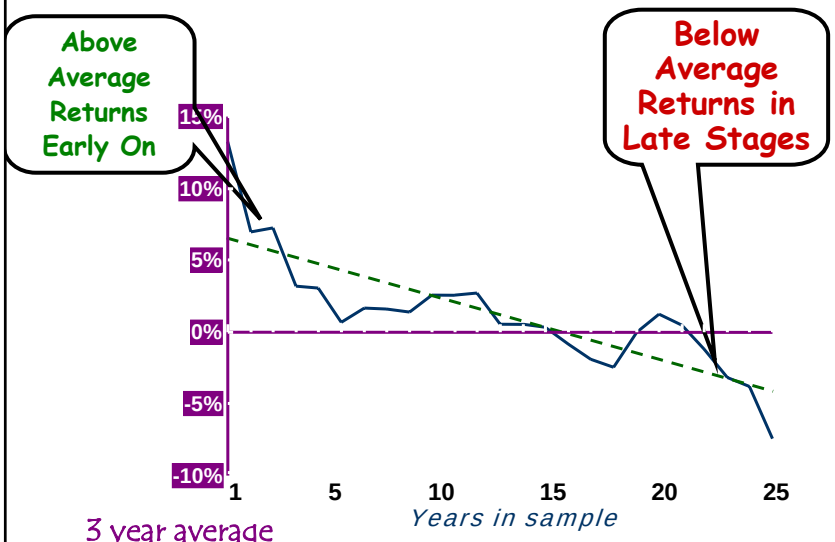


Leading to constant pressure on margins – we have to do more with less, somehow.

Sources: HSBC: Bureau of Economic Analysis

* Non financial corporate sector

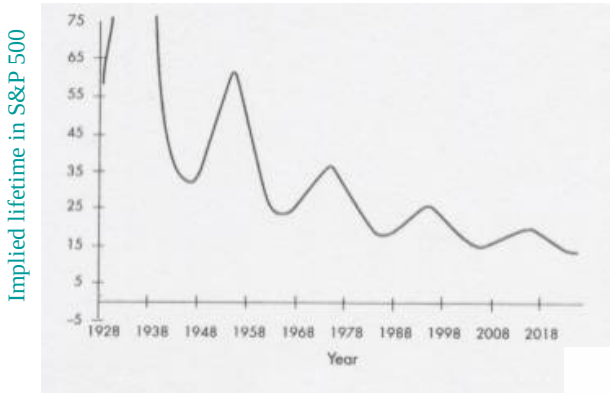
The Survivor's Curse – rolling average in S&P 500



3 year average rolling average

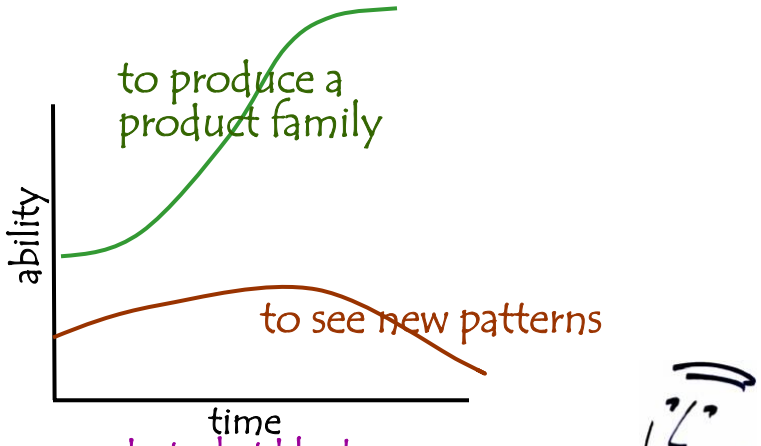
Dick Foster – Creative Destruction

Average Lifetime of S&P 500 Companies



But why is this happening??

The Competency Trap!



but what blocks you
from seeing new patterns?

Mental models, institutional and social practices
and path dependencies

A Story Of Conceptual Lock-in: Clipper Ships

Glenavlon - 1880s

France II

Preussen

Thomas W. Lawson

path dependency reigns supreme

Wow – devastating even back then
But now think what this means
in today's hyper-competitive,
rapidly changing markets.

Both public and private sectors beware!

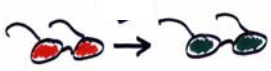
Keys to Survival in a Rapidly Evolving World

shifting from managing continuity
to managing discontinuity

- sensing the edge (LOOKING AROUND)

(at the edge of your enterprise, industry, region, generation)

- rethinking the very nature of the firm and competitive strategy
- and learning to see and learning to unlearn.



Why unlearning???

Seeing
is harder than it might appear

Let's explore using basketball

Hmmm, where the heck is jsb headed now?

Yes, learning to see – seeing differently - is important

But

in an era of rapid change we must also shift our focus to the edge and transition from managing our stocks of knowledge to participating in flows.

(a new challenge for knowledge management strategies)

stocks → flows

Ah, edge thinking. Pls give me examples in both public and private sectors.

Finding & Refining New Tactics

Games for training; games for discovery
by listening to the edge

America's army

Shaking up the status quo – new strategies and tactics from the digital natives!

A new mechanism for sensing & leveraging the edge:

In-Q-Tel: venture catalyst for the CIA

Isn't that an oxymoron, jsb?

Knowledge management for the public sector must pay close attention to edge phenomena.

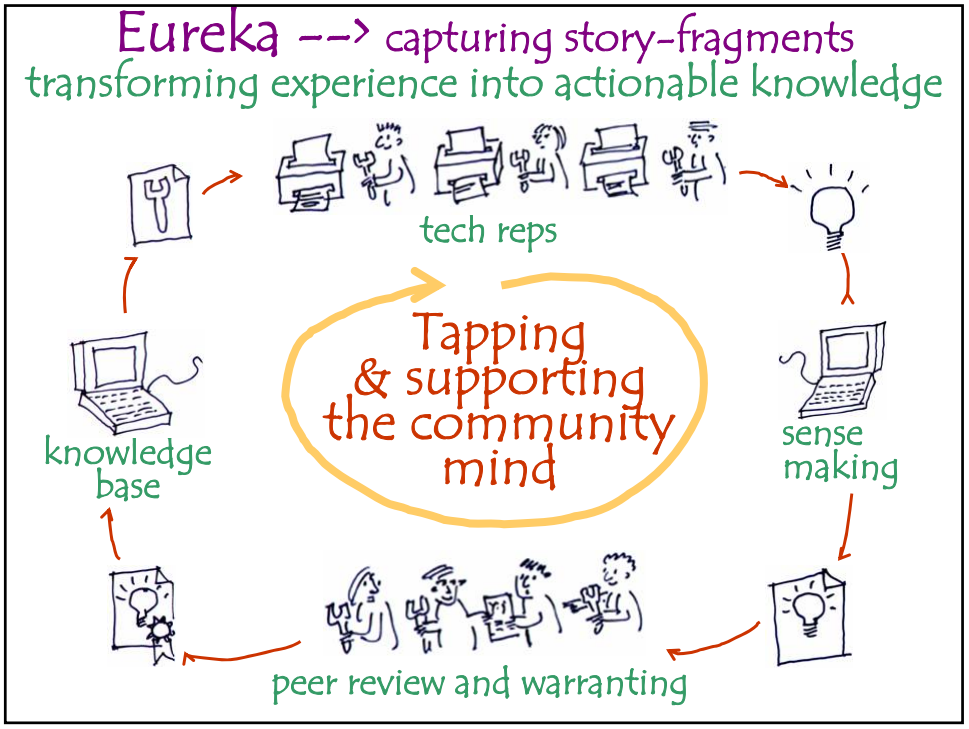
In-Q-Tel – a brief description

- not-for-profit institution that sits 'next to' to CIA
- has sister organization inside CIA sponsored by director
- knows the basic problem spaces that the agency faces
- has access to nearly all the deal streams of 1st tier VCs
- senses how a new start up technology might be used (or combined with another existing or new tech) to solve an agency problem.

Keys to success

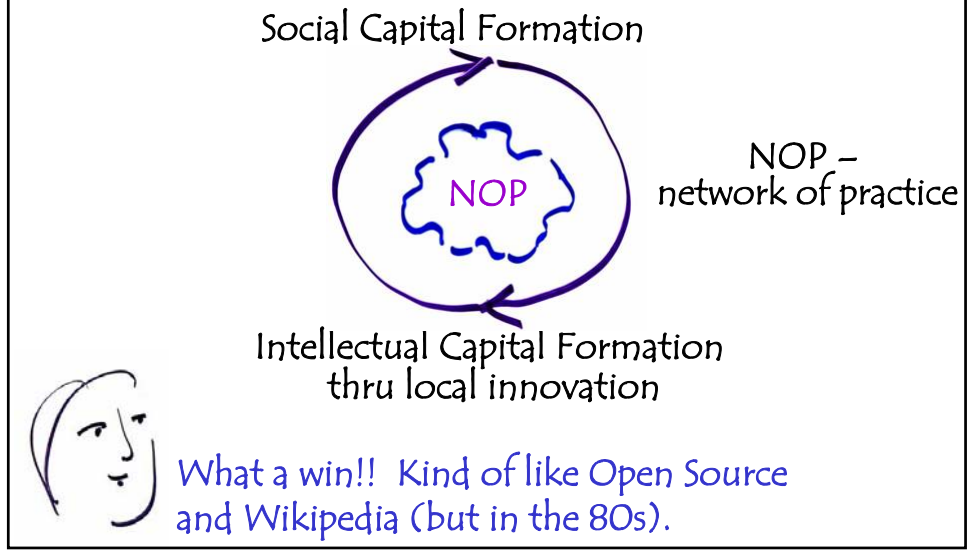
- CEO is respected by 1st tier vc firms and is acceptable to intelligence community
- Ability to rapidly evolve the institutional structure – institutional prototyping, almost
- Viewing In-Q-Tel as a bridging platform for 'trickle-up' technology and as a learning platform for the governments CIOs, etc to get a sense of the speed and degree of ongoing innovation.

Ah In-Q-Tel as a knowledge platform



A Virtuous Circle

(social software -> social capital & intellectual capital)



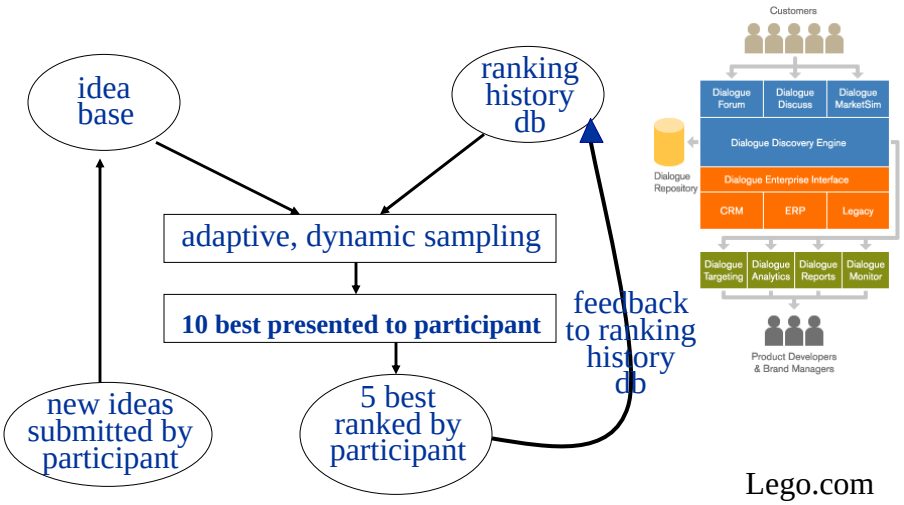
What a win!! Kind of like Open Source and Wikipedia (but in the 80s).

But let's spread our knowledge web more broadly:

- with our customers
- with clever individuals/inventors
- with other enterprises via process network

Informative – (web based)

Collaborative elicitation and ranking of ideas
of participants, by participants in their own words



Lego.com

Goldcorp – mining knowledge to find gold

The Red Lake Gold Mine Challenge

- mid 90s the 50 year old mine was viewed at its end of life but test drilling suggested there was yet to be found – yet the company's geologists couldn't decide where or how to move forward.
- CEO Rob McEwen attends Sloan Management School and learns about open source and Linux. He Decides to launch a 575k dollar challenge putting all of precious data on the web and asks for suggestions.
- 52 submissions arrive & judged. 25 semi-finalists Chosen – get 10k and are asked to elaborate. Finalist get 105k. 110 deposits were identified, 80% yield

P&G's Stance

In 2000 they lost 50% of their market cap
(top line stagnant but profit was still growing)
(success rate of innovation was 35%)
(company insular)

The Challenge:
5% more organic growth with 10% less money

They recognized for the 7.5 k R & D folks there were 1.5 million qualified folks working on neat stuff – around the world

Innovation is happening everywhere.
Can we connect (across an edge) and develop?
(their view of R&D)

Step 1: InnoCentive.com

(45% success rate)

each challenge must be well defined with an answer that can be readily verified.

(tapping the high skills base in Asia and their own retirees)

Step 2: Search for inventors who have cool stuff.

(have found 10k ideas already reduced to practice)

(35% of their products in last 2 years > 100 products)

P&G – goal of 50% of their innovation done externally

Open Source

Sufficient to build a complete technology stack

(primarily Java)

Cassatt –

90% of our code base is open source.

The rest is our unique value add!

Bill Coleman – CEO

PS –the only cheaper way to build a system than going to India is to pay nothing for it

(Cassatt – Service Level Automation, server farms)

But these examples are just transactional – one offs – with the exception of In-Q-Tel.

Right! Let's now shift to looking at Process Networks – that are both relational and fundamental to rapid LEARNINGS AND INNOVATIONS when done within a knowledge sharing context.

Motorcycles Galore – Phnom Pen

Chongqing – Disruptive Innovation:
bottom up, local modularity, drawing approved

Motorcycle Assemblers: choose focal design
Modularize architecture: drawing approve
Recruit sub-system suppliers

- Frame
- Engine
- Suspension
- Fairing/cowling

—Negotiate around prototypes/sample units
— "Swarm" the design – focus only on adjacent units

Export price drops from $700 to $200
China now accounts for 50% of global production

Toyota
tapping the creativity
of the hundreds of suppliers and their employees
thru productive friction around the edge

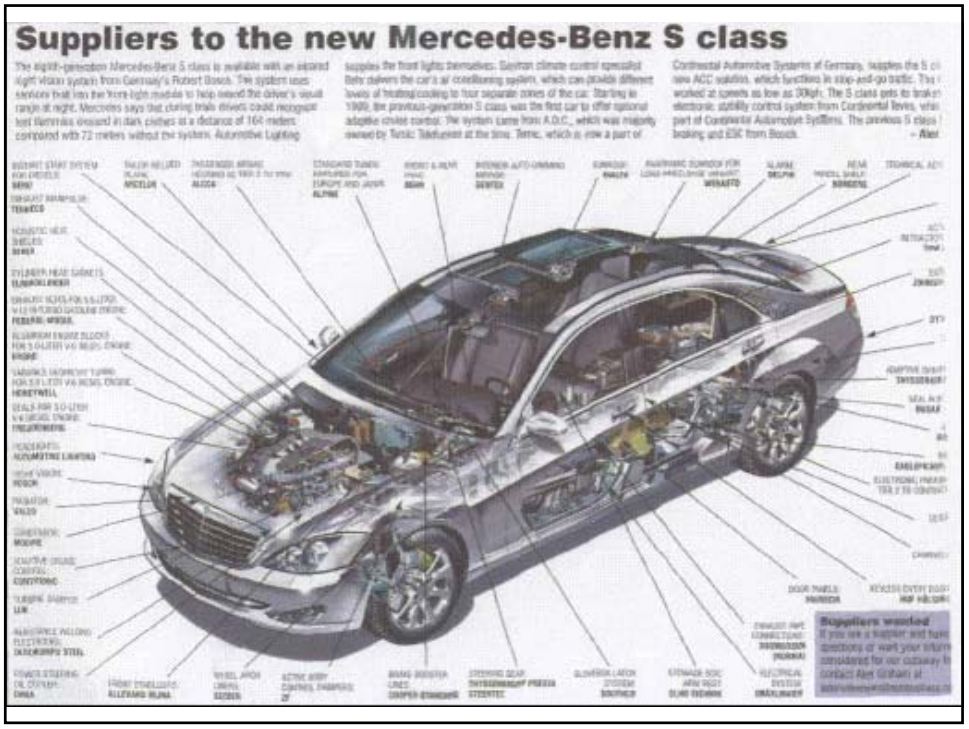
Lowest cost – not necessarily lowest price
Create dialogue and collaboration
Bring us new ideas/innovations
Respect (open/closed)

exception conditions as action points – create productive friction

the Andon Cord and board.

When an defect is found the person who finds it is to stop the entire line – freezing the context – til the source of the problem can be discovered.

The board shows everyone in the factory where the defect was found



Taiwanese ODM Process Networks – Digital Still Cameras Percent Of Bill Of Materials* (tell me what, not how) fast, agile, low cost

Lens (26%)

FF/AF	Zoom
Asia Optical	Nikon
Baso	Olympus
Kinko	Ricoh
Largan	

LCD Display (12%)

AUO
Casio
Epson
Giantplus
Sharp

Digital Still Cameras Taiwan ODM's

Ability	Minton
Aiptek	Premier
Altek	Primax
Asia Optical	Skanhex
Nucam	

Sensors (10%)

CMOS	CCD
ICMedia	Matsushita
OmniVision	Sharp
Pixart	Sony

Back-End IC (7%)

Connexant
Sunplus
ST Micron
TI
Zoran

open/open

*For 2MP DSC with zoom lens

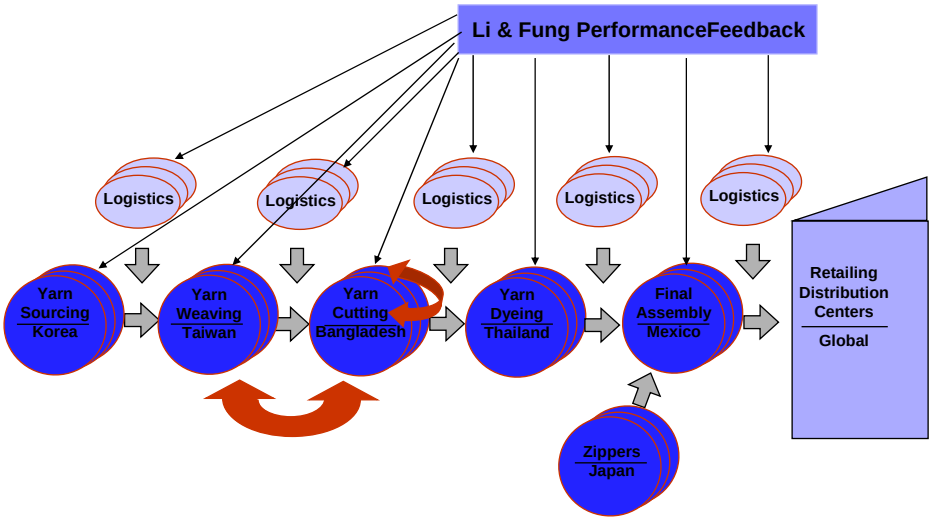
Li & Fung's Process Networks
pure orchestrator

Abercrombie & Fitch
ANN TAYLOR
GUESS
Levi Strauss & Co.
the limited

5 billion rev-2002
1 million/employee
30-50% ROE
7500 suppliers
37 countries

Li & Fung Limited

Li & Fung – supply chain orchestration
(around long term relationships)



Learning, bootstrapping skills and knowledge creation

Key Constructs For Process Networks
for leveraging open innovation & learning

- Loose coupling between the nodes/players
- Relational, not transactional based
- Trust and shared meaning grown over time
- Dynamic specialization for distinctive capabilities
- Productive friction between the players

Loose coupling is key; but Adam Smith taught us the power of specialization– today it would be dynamic specialization.

Two different mind sets.

- hardwired vs loose coupling
- transaction/price vs relationship/value
- friction to be avoided vs friction turned into creative abrasion
- small number of partners vs large number
- little trust vs growth of trust
- efficiency vs learning and fast innovation
- exploitation vs exploration
- lone genius vs wisdom of crowds.

Can be supply chain, infrastructure, customer facing.
Orchestrated by a pure orchestrator or hub/spoke

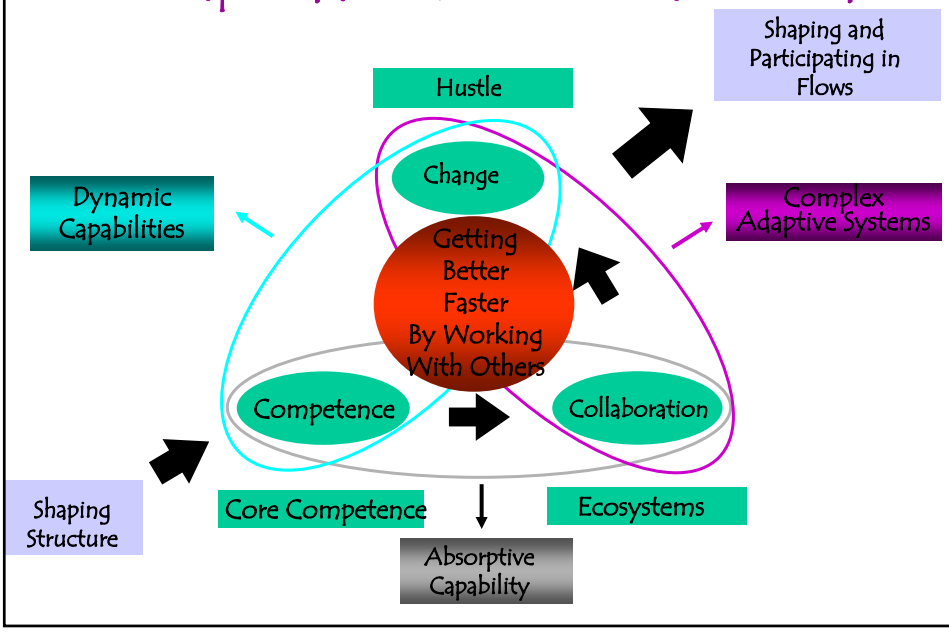
Performance/Knowledge Fabric Reduce Interaction Costs Across Enterprises

Technology Elements
- Architectures
- Interaction Tools
  - Social software
  - E-learning platforms
  - Web services and networks

Business Elements
- Shared meaning
- Dynamic trust

A New Era in Knowledge Management

Changing Focus of Business Strategy
the importance of KM becomes critical



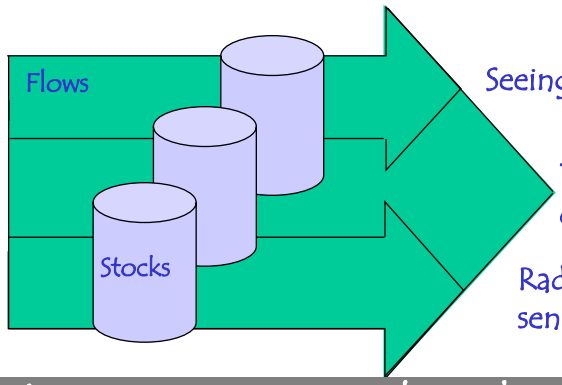
Shifting From Stocks To Flows

Flow Catalysts

Local Business Ecosystems

Process Networks

Emerging Markets



To participate

Seeing differently

Thinking differently

Radically new sensibilities

Knowledge management tools/techniques more critical than ever to leverage flows for learning and accelerating capability building.

The Only Sustainable Edge:
learning and building capability faster than others.

Thank You

and remember that
the edge transforms the core