The Roundtable on Education and Human Capital Requirements
McGraw-Hill Headquarters – New York City
1221 Avenue of the Americas, Empire Conference Room- 45th Floor
February 24, 2012

Inventing New Measures of Value Creation: Use the Future to Rethink the Present

Riel Miller
Sense making & making sense – variables, metrics and models

“We are in one of those eras when, with our certainties shattered and our traditional ways of thinking shown to be impotent, everything has to be rebuilt and reinvented. We are in an era when the central question for politics is what model of development, what model of society and civilization, we aspire to live under and bequeath to our children.”

Nicolas Sarkozy, President, France

The Industrial Revolution

“After 1780... so strange were the events (of the industrial revolution) that before they happened they were not anticipated, and while they were happening they were not comprehended.”

D. N. McCloskey, "The Industrial Revolution in Britain 1780-1860: A Survey"
Learning Intensive Society: An Imaginary Model

Rip Van Winkle: American fable, a man falls asleep for 25 years right after the American Revolution in 1776 — rich descriptions of systemic change.
Macro-level definition of the Learning Intensive Society

Transition scale societal change:

• Compositional change in the weights of different sources and methods of creating “value”. A different economic system.

• Changes in the frames and practices of identity and community, being and belonging.

• Changes in the capacity to make choices and in the conditions that define choices.
Compositional Transformation

Share of total wealth creation by work source

- Agriculture
- Social Identity
- Craft/Creative
- Industrial (goods & services, public & private)

Agricultural Society | Industrial-Information | Learning Intensive
What is the knowledge – learning economy? A definition: Learning in everyday life is more intense if, in daily life, more:

- know-how
- know-who
- know-what
- know-why
Average Learning Intensity of Daily Life

Agricultural Society | Industrial Society | Learning Society

Average intensity of know-how

Average intensity of know-what

Average intensity of know-who

Average intensity of know-why (decision making capacity)

Source: Riel Miller, XperidoX Futures Consulting; rielm@yahoo.com

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Moving to the Micro-Level: Complex Societal Evolution

- Economic
- Social
- Governance

Photo credit: Mark Schacter, www.luxetveritas.ca
Systemic Economic Transformation: Changes What and How We Produce

• Unique creation dominates
• Organization is fluid and open

“Next stage” of market economy – beyond mass-production and mass-consumption
Creating wealth – changing sources

Unique creation

Organisation of Value Added

Mass-production

Low learning intensity

Relationship of actor(s) to object

High learning intensity

Beyond the dualism of supply & demand

Mass-era worker and consumer

Empowered team-worker, informed shopper

Artist/researcher/learner

Riel Miller 2012
Teasing the Imagination: Tools for Unique Creation
First car produced using a “desk-top factory”
Industrial Era Logic
Sequential Production
Resource (Re)Allocation

Supply → Demand → Allocation → Supply → Demand → Allocation → Repeat cycle
Clouds of value creation:
Transforming the organizational foundations
Murmuration

Starlings Flying in a Flock:
http://www.youtube.com/watch?v=MIzlcH2q6Vo

Imagine Clouds of Unique Creation
Flows of Collaboration and Experience
Local and Global, Multiple Dynamic Communities - Heterarchical
Who am I

The Challenge of Identity when we have the capacity to be free

Beyond the passive and imposed
Identity & choice

Heterogeneous/small

Homo-

Geneous /large

Scale of social affiliation/identity

Less choice

Decisions - what, where, when, with whom, how

More choice

Mass-era

Learning

Intensive Society

Beyond individual vs collective: banal creativity
Decision making capacity
Governance: capacity to make decisions

- Transparency & access to information
- Limited & fragmented

- Extensive & unified

- Learning Intensive Society

- Mass-era
- Limited
- Continuous
- Experimentation & learning

Capacity for reframing and sense making: spontaneity

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Imagining the Scale of Change: Frame a Picture

• Wealth, rules, governance, values
  – Physical/financial vs human capital
  – Simple vs complex property rights
  – Ex-ante vs real-time allocation of power
  – Shared values as basis for transaction trust (Universal Declaration of Human Rights)

• Quality of life
  – Mass production vs production for self/community
  – Life organized for work vs work organized for life
  – Hierarchy vs autonomy
  – Imposed identity vs self-generated identity
  – Sen’s definition of “freedom”
Systemic Change (changes in the conditions of change)

Challenge Anticipatory Assumptions:

A. The preponderant source of wealth is no longer industrial (tangible or intangible).

B. The primary source of productivity increases is learning by doing, i.e. experience that allows for refinement of taste (self-knowledge).

C. Unique creation is local, ideas are global and tangibles are cheap.

Expanding the number of university graduates does not increase wealth nor lead to “greater competitive” advantage.
Changing Composition of Output

- Percentage Share

- Time:
  - 1985
  - 1990
  - 1995
  - 2000
  - 2005
  - 2010
  - 2015
  - 2020
  - 2025
  - 2030
  - 2035
  - 2040

- Industrial products
- Innovation (S&T/R&D)
- Personal products
- Creativity (Refinement of taste)
Experimentalism not administration

Decision making in the face of complexity, learning by doing, self-organising systems, evolutionary emergence are all processes that entail “error”, administration in both public and private sectors punishes error
The wealthiest societies have the highest average age.
The productivity of unique creation and the quality of decision making capacity both increase, with experience and better information – this is the wisdom economy – the know why why society.
Substitution
**What is the Question?**
Thinking about systemic change

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• “In an increasingly performance-oriented society, metrics matter. What we measure affects what we do. If we have the wrong metrics we will strive for the wrong things. In the quest to increase GDP, we may end up with a society in which citizens are worse off.” Stiglitz, Sen, Fitoussi, Mis-measuring Our Lives.

• Systems of national accounts track monetized market production, but what is counted and what is part of a market changes over time. Accounting is a convention. Markets are the quintessential outcome of platforms.
“The poverty of historicism is a poverty of imagination. The historicist continuously upbraids those who cannot imagine a change in their little worlds; yet it seems the historicist is himself deficient in imagination for he cannot imagine a change in the conditions of change.”

Karl Popper, The Poverty of Historicism, 1944
How we anticipate matters it changes the present.

Thank you

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