

# Innovation is a social process

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# Outline

- Defining innovation
- Economic clusters and social learning
- Impact of the economic transformation
- The social transformation
- Innovations in social policy

# Innovation writ large

- Innovation drives productivity growth
- But productivity does not occur only in commercial enterprise
- Every sector consumes resources and produces outputs, and every sector is being reshaped by technology, knowledge-based activity
- So our productive potential depends on the capacity for innovation across markets, state, community, and family

# A definition

- Innovation in new or significantly improved products or processes (OECD)
- Our image is the scientist in his lab, the computer whiz at the keyboard, the engineer rethinking the assembly line.
- There is a second image. It involves people in dialogue, brainstorming, waving their hands
  - It applies to business, but also to every other institution -- governments, hospitals, social agencies, schools, families

# Innovation 1

- Every speech about innovation underlines the first image, worrying about
  - Under investment in R &D
  - Shrinking IT faculty
  - Patent applications
  - Tax rates and capital cost allowances
  - Exchange rates
  - E-business opportunities
- This is innovation as macro policy, as a context for decision-making

# Innovation 2

- Buried in each speech are oblique references to this second image
  - Skills, talent, knowledge
  - Collaboration, behaviour change
  - Ambition and adventure (animal spirits)
  - Strategic leadership, management
  - A culture which permeates all activities
- A lot of “innovation occurs through the process of interaction between economic actors” -- suppliers, customers, research institutions, unions, associations

# Interaction

- This interaction involves
  - Explicit and codified knowledge -- in books, manuals, web sites, etc, *and*
  - Tacit knowledge -- exchanged between actors who communicate through shared norms
- This is social learning -- where dialogue and hand-waving are part of the process.
  - It requires a common language and a place -- a site of learning
- This is the rationale for economic clusters.

# Economic clusters

- As technology and globalization shrank distance and blurred borders, we left to the conclusion that place did not matter
- Now we discover that place does matter. Kanata, Silicon Valley, and Route 128 exist because they foster social learning
  - I.e. the process of interaction among firms and their suppliers, customers, research institutions, unions, associations etc
- These clusters are embedded in social and political contexts

# Smart societies

- The innovation language leads to new buzzwords: smart regions, smart growth
- I want to propose some other buzzwords: smart social policy, smart communities, smart regulation, smart government
- They are all connected and they are all driven by similar drivers -- technology and the pressing need to use scarce resources judiciously

# A paradigm shift

- Post-war public policy was founded on the economic model of mass production and the social model of the welfare state
  - This favoured large hierarchical bureaucracies
    - in both public and private sectors
- Now the model is “just-in-time” production and flat, networked organizations
  - Hierarchy is being squeezed out of business
  - Payrolls are more flexible, piecework is back
  - Change occurs at web speed
  - Workers have more autonomy, less security

# Challenges of the new model

- Economic analysis (macro and micro) can't keep up with the pace of structural change
- And is constrained by the difficulty of measuring knowledge assets
- Breaking through to this new model has been tough -- the dot.com crash shows that such transformations are full of risk
- Creative destruction rules: products disappear (typewriters), industries are imploding, and towns and cities are either thriving or dying

# Some implications

- So, what does this mean for families, communities, and governments?
- Their model has changed too
- Old model
  - Breadwinner families
  - Rising real wages in standard FT jobs
  - Health care in the hospital or doctor's office
  - High school education was the baseline
  - Communications mainly by letter

# New realities

- Many families are not able to be self-sufficient, even with a full time job, because many jobs don't pay a living wage
- Many people who used to be cared for at home or in institutions are on their own
- Education is the fault line which divides wage structures and opportunity
- Life long investment in learning is essential
- Growing evidence of an emerging underclass in Canada

# Double-edged economy

- The new economic model is double-edged
- It generates immense wealth and opportunity for people of good education, good fortune, and good health
- And social distress for those who lack education, are displaced by industrial restructuring, lack good personal networks, or have poor health
- There is a great divide between urban and rural, but there is an even greater divide within cities

# Distressed neighbourhoods

- Inequality in market incomes has been increasing in national and provincial data
- The most extreme concentrations of wealth and poverty are in the cities
- The markers of social distress are
  - 1 in 3 men do not work full time
  - 2 in 5 youth are neither working or studying
  - 1 in 3 families with children are lone parent
  - these markers are accompanied by many social pathologies
  - and in many cases by racial differences

# Social distress and innovation

- Distressed neighbourhoods become magnets for distressed people -- people who have no hope for the future, no access to technology, inadequate housing, etc
- Children and youth face daunting odds unless they and we can be innovative
- This leads me to two anecdotes about real people caught in the web of social distress
  - Nancy is a psychiatric nurse, a lone parent, who was last seen in a welfare motel
  - She was laid off by a Toronto hospital in 1995

# Children of distress

- East Montreal has schools with drop out rates for young men in the 50% range
- About 15 years ago, Richard Tremblay started a program to help 6 year old boys
  - Provided a 2-year program of anger management counselling costing \$2k per child
  - No impact in the next few years, but by age 17
  - Drop out rates half the norm for their group, incidence of drug abuse and contact with justice system much reduced. Sounds smart?
- No schools in Montreal use the program

# Innovative social policy

- Innovation requires investment. In the social areas, the payback periods are long
  - Nancy's nursing skills are in great demand today. If she had had access to affordable housing, she and her family could well have survived the layoff with modest help.
  - Investing \$2000 per troubled child in inner city schools avoids untold costs and creates opportunity for young men to develop the kind of skill sets needed to find a good job, rather than paying costs of police, prison, addiction
- Our culture avoids 10 - 20 year paybacks

# Smart education

- To be successful in the knowledge economy, people need a new skill mix
  - They need the three Rs, computer skills, *plus*
  - The ability to work autonomously and in teams
  - Good interpersonal and risk-taking skills
- To meet the new standard Nancy's daughters and the boys in Montreal need
  - Key social and cognitive skills -- acquired in early childhood education
  - Interpersonal, leadership and risk-taking skills -- acquired through recreation (safe parks, sports, music, dance, mid-night basketball)

# The innovation debate

- Let's not focus the innovation debate only on R&D, lower taxes and less government
  - If we do, we will deprive ourselves of the scope to make needed social investments.
  - We must focus on using taxes effectively -- on smart government, smart social policy, and smart health care. This can do as much or more to improve standards of living and opportunity for Canadians as industrial and macro-economic policies
  - In the society we want, innovation will enable us to meet both social and economic goals

# New innovation goals

- The goal is
- Not to abolish welfare but to use smart policy to avoid the need for welfare, by enabling Nancy to remain self-reliant and by giving those boys a real chance to succeed in school
- Not to give up on Medicare but to redefine the interface between patient and system
- Innovation can work its magic wherever you live, work, or play

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