

# America's Innovation Future

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# Outline

- Big question: what are likely to be the most exciting and most fruitful focuses for industry studies over the next generation?
- Four eras of industrial development in the past
- What comes in era number five?
- Leading sectors: supply and demand perspectives
- Predictions

# Four Eras of Industrial Development in the Past

- Starting with the problem of getting water out of coal mines so you can fuel London...
- Concentrated technological change in a few key leading sectors, 1730-1840
- The effects on the economy as a whole of the build-out of the key leading sectors of the Industrial Revolution, 1790-1890
- The broad-front coming of the age of economy-of-scale-driven mass production, 1860-1950
- The broad-front building-out of distribution and information, 1950-2010

# What Comes Next?

- Era Number Five...
- More of the same?
- A reversion to one of the earlier three patterns?
- Supply and demand perspectives

# The Supply Perspective

- Ideas, energy, control
  - Ideas as to how to manipulate matter and energy
  - Extra energy to do the manipulation
  - Control of the process
- Information technology as providing us with substitutes for the human eye-brain-hand loop as a control mechanism
- Biotech as providing us with substitutes for the human eye-brain-hand loop as a control mechanism
  - Bad news for “unskilled” labor

# The Demand Perspective

- Key questions for leading sectors
  - How elastic is demand?
  - In what directions does demand push innovation?
- Infotech
  - Demand is not terribly elastic
  - Move and organize bits more cheaply
- Health care
  - Demand is extraordinarily elastic indeed
  - Do more things rather than do things more cheaply

# Predictions

- The supply and demand perspectives are pushing in the same direction
- Information technology will drive to get the (still expensive) human eye-brain-hand out of the control loop
  - But that is not where the money is going to flow
- Health care broadly construed will grab the lion's share of spending increases
  - For that is where the money will go

# Implications

- The economy is all about where the money is—  
what things are expensive and valuable
- Interesting research questions concerning  
infotech and transformations of control in  
industries
  - But that isn't where the money is going to be
- And interesting research questions concerning  
the interface of industries with biotech/health  
care
  - And that is where the money is going to be
  - That is what people are going to care about