NBA 600: Day 5
IT and Business Models
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Today’s Class

- Business models and new technologies
  - Not new, but overblown during Internet bubble
- Moving beyond Internet to information technology more broadly
  - Carr article counters both Porter and Tapscott
    - Denounces strategic role of IT
      - Just a necessary cost of doing business like electricity, manage conservatively
    - Start discussion
- Groups for mid-term and final projects
Internet and Porter’s 5 Forces

**Increased rivalry:** larger geographic regions

**Bargaining power of suppliers**

**New substitutes:** especially digital goods

**Threat of Substitutes**

**Rivalry among competitors**

**Bargaining power of buyers**

**Barriers to Entry**

- **Lower barriers to entry:** lower cost and less expertise
- **Increased buyer power:** better informed, easier to switch
Internet Changes Landscape

- Increases need for strategy
  - Increases bargaining power of customers
  - Can decrease bargaining power of suppliers
  - Usually lowers switching costs
    - Change to substitutes generally easier, except where strong enough “network effects”
  - More geographic competition
  - Less margin for error, need better strategy

- Creates need to consider business models
  - May enable new sources of revenue or undermine current sources
Business Models

- Porter discounts as dangerous fad, Tapscott says crucial but doesn’t define
- What is a business model?
  - Why and how customers pay profitable price
    - Generally one or small number in an industry
- Telling a good story [Magretta]
  - Answering Drucker’s age-old questions:
    - Who is the customer? What do they value?
  - Addressing fundamental economics:
    - How do we make money? What is the underlying logic that explains it?
Importance of Business Models

- How profitable revenue obtained for value
  - On Internet arguably has been difficult

- Example of travelers checks
  - Letters of credit cumbersome, cash dangerous
  - Information business
    - This person is good for the money
  - New model
    - Customer pre-pays for safety and convenience
    - Firm makes money on “float”
  - Dominant form until global information networks (ATM, credit)
Business Models are Not Strategy

- Often used interchangeably but wrong
- Business model: how to profitably generate value for the customer
  - Omits the critical dimension of competition
    - Which comes not only from competitors but also from suppliers, customers, substitutes, entrants
- Competitive strategy explains how will do better than rivals – what advantage
  - E.g., first mover not enough
- Business model mediates between value creation and new technology [Chesbrough]
Business Models and IT

- Information relatively independent of form
  - New physical, electronic or other forms can completely change transmission of information
    • And its value – which can be due to rarity
  - Different from physical goods and "human services"

- New information technologies can enable different forms of information transmission
  - Undercut old forms and their value
  - Introduce new ones with new profitability

- Fertile ground for new business models
Some History of IT Business Models

- Radio broadcasting – needed new model
  - Subscription or fee not possible model
    - In contrast to newspapers, magazines, movies
  - Promising new technology
    - Stock bubble (1905-1910)
  - Big business by 1920’s
    - Broadcasters largely were manufacturers
      - Westinghouse, RCA
    - Evolution of national radio networks
      - Eventually audience for sponsors/advertisers

- TV broadcasting – used radio model
  - Initial losses absorbed by radio broadcasters
IT Hardware Manufacturers

- Often explicitly create product need through content/services
  - Radio equipment manufacturers developed broadcasts to drive demand for radio sets
  - Motorola creates businesses to drive demand
    • Built early pager and cellular networks
      – Exited service businesses once critical mass
    • Satellite phone networks (e.g., Iridium) were costly businesses that never yielded demand
  - Intel’s VC arm invests in applications that create need for faster microprocessors
    • Positive investment returns generate more value
Copier Technology

- Haloid (Xerox) introduced 914 in 1959
  - First plain paper copier – much higher quality
- Prevailing business model “razor & blades”
  - Slight markup on reprographic equipment
    • Typical machine sold for around $300
  - Higher markup on consumables (special paper and supplies)
    • On average used for 15-20 copies per day
- Business model a problem for Haloid
  - Manufacturing cost of 914 around $2000
    • Although per copy costs similar to others
A (Revolutionary) New Model

- Nobody could see how to make money with this new technology
  - Haloid tried to get Kodak, GE and IBM to help market the 914 but all thought no business
  - AD Little concluded device was highly versatile but had no future in office copying market

- Joe Wilson bet that there was greater “latent” value in the technology
  - Leased the device at $95/mo including 2,000 copies, then $.04 per additional copy
    - Without extra copies, about 2 years to reach profitability on each lease
Wildly Successful Model

- Once installed, the 914’s generated an average of 2,000 copies/day (not month)
  - Almost 20x the lease revenue
- Growth rates 40%/yr for twelve years
  - $2.5 billion revenue and high margins by 1972
  - Never would have gotten off the ground without a new business model – leasing
- But Xerox had hard a time getting past the “lease plus click” model
  - Lost low-end business to HP
    - Back to the “razor & blades” model
Business Models

- Need for new ones relatively rare
  - New technological capabilities can drive need for new models

- Easy to get trapped in a particular view of the business model
  - Nobody could see value of xerography because of cost structure
    - 25 years later Xerox couldn’t see value of model they had previously displaced, despite change in cost structure that necessitated it
  - What customer really values, how they prefer to pay, match to cost structure
New Business Models

- Have these companies pioneered new business models?
  - Dell?
  - Etrade? Schwab?
  - Jet Blue? Southwest?
  - WalMart?
  - Other companies?

- Role of IT and Internet specifically?
  - If a new model did it depend on IT?
    - For capability?
    - For cost effectiveness?