Regulation, Competition, and New Technology Adoption: Applying the Bell Doctrine to Retail Electricity Markets

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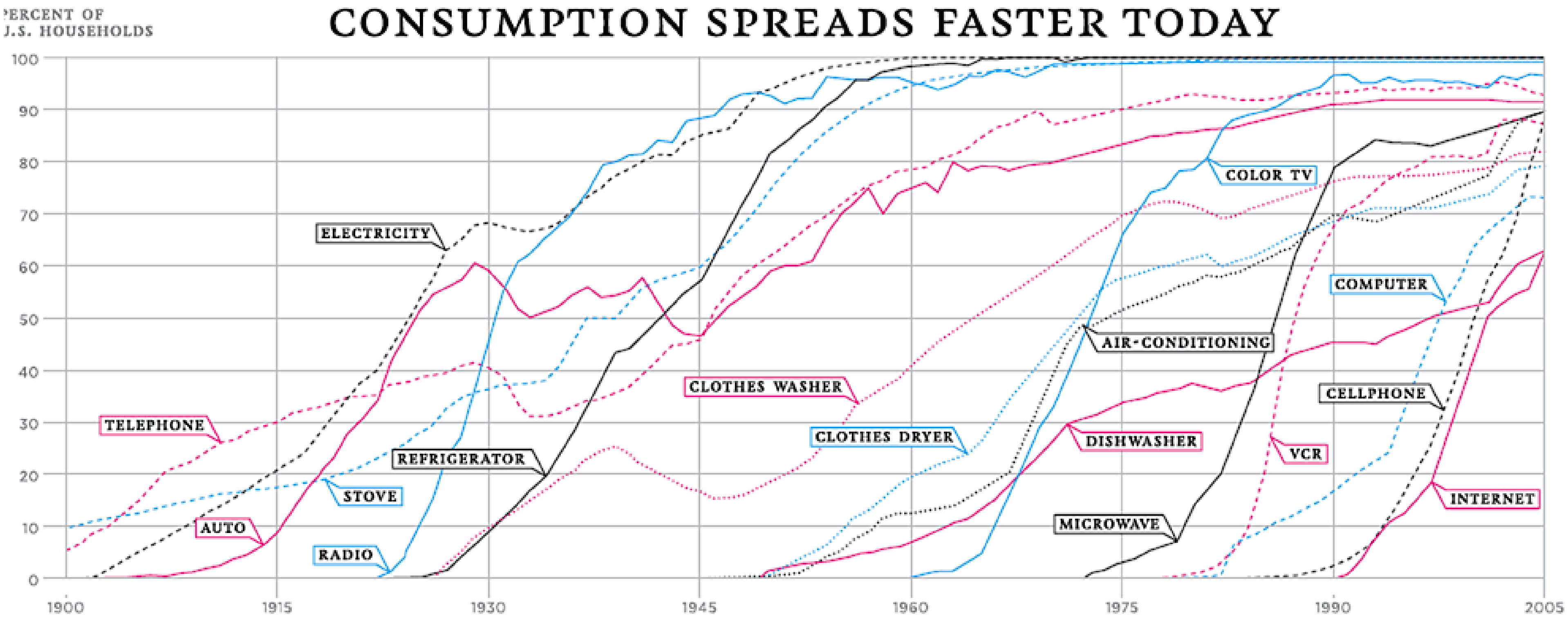
Imagine …

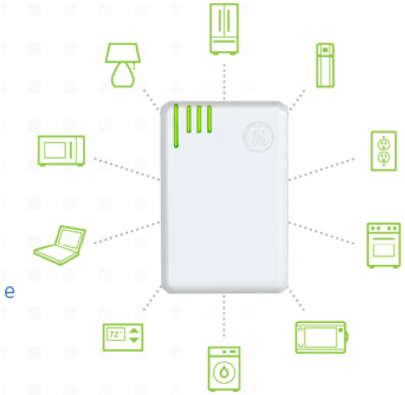
How has technology changed your life in the past two decades?

100 years of new technology adoption



Source: http://visualizingeconomics.com/2008/02/18/adoption-of-new-technology-since-1900/

Slow innovation and adoption in consumer ***energy*** technologies?



1. http://commons.wikimedia.org/wiki/File:Group_of_smartphones.jpg
2. http://www.geappliances.com/home-energy-manager/
3. http://www.adtpulse.com/home/how-pulse-works/mobile
4. http://www.tendrilinc.com/developers/

Why such slow consumer adoption?

- Systematic factors and incentives embedded in regulation
  - Retail regulation, persistence of incumbent
  - Producers have little incentive to experiment, innovate, differentiate products
  - Consumers have little incentive or opportunity to experiment
- No entrepreneurial processes for discovery, learning, feedback, error correction – in other words, ***no markets***

Why? Failure to quarantine the monopoly from the retail market

- Incomplete regulated incumbent exit from retail market
  - Incumbent default service contract
  - Specification of product characteristics and market boundaries in the tariff
- Anti-competitive effects – stifling experimentation among producers and consumers, to their detriment

Quarantine the monopoly

- Precedent: *US vs. AT&T* (1974), settled 1983
- Regulated, vertically-integrated monopoly leveraging its monopoly into entry-deterring, anti-competitive downstream effects in the CPE market
- Antitrust remedy: structural separation
- Bell Doctrine/Baxter's Law: quarantine the monopoly

The value of experimentation in competitive retail markets – 1

- Value creation through creative destruction
  - Product differentiation, bundling, change market boundaries, rivalry among differentiated bundles
  - New entrants are more likely to risk their resources doing so than cost-recovery-regulated monopolists
  - Schumpeterian disruptive entrepreneur
  - Examples abound in the past two decades

The value of experimentation in competitive retail markets – 2

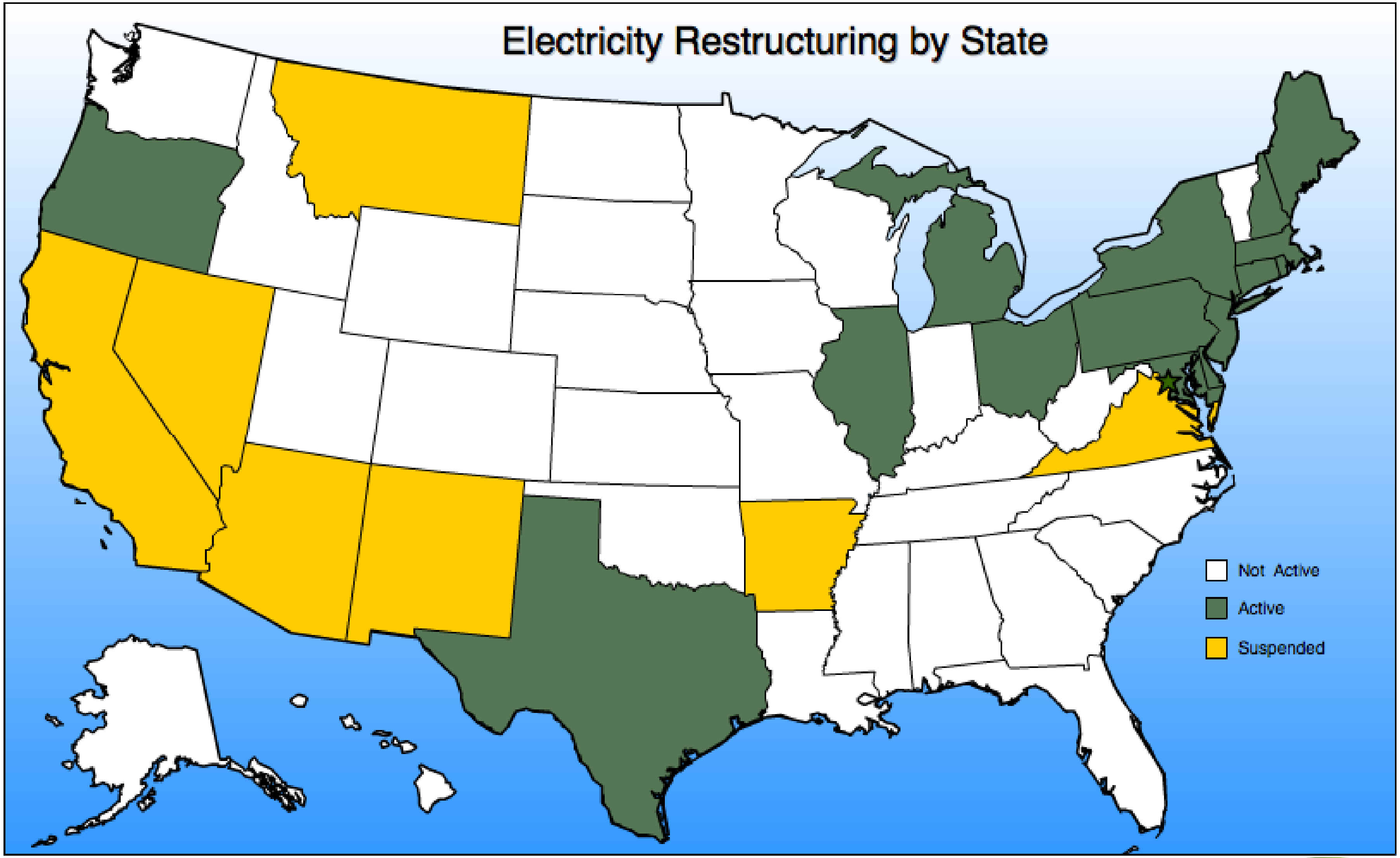
- Value creation through entrepreneurial alertness and discovery of new knowledge
  - Entry barriers reduce the return to alertness to profit opportunity
  - Kirznerian entrepreneur (with a dash of Hayek): aware, alert, perceiving profit opportunities in information gaps and in benefits to others

The value of experimentation in competitive retail markets – 3

- Both producers and consumers engage in entrepreneurial experimentation
- What producers and consumers do in markets involves both experimentation and error correction
- Competition is a dynamic process of changing features-products-services and market boundaries, not of P=MC
- Regulation rigidifies or stifles these processes

Anti-competitive retail entry barriers, the Brandeisian experiment

- Vertically integrated states (34)
  - Legal entry barriers
- Restructured states (15 + DC)
  - Nominal retail competition/lack of legal entry barriers
  - Existing entry barriers
    - Incumbent default service contract
    - Administrative product-service-market definition
- Texas – no legal entry barriers


Electricity Restructuring by State
Not Active
Active
Suspended

Utility as gatekeeper

- New products-services-prices-bundles being determined through a regulatory process
- Regulated monopolist, not consumers, making consumer technology decisions
- Smart grid pilot “preferred vendor” status increases scale in the features the monopolists *think* their consumers want, but shrinks experimentation
- Providing CPE undermines bundling opportunities for competing retailers

Recommendation: Quarantine the monopoly from retail markets

- Incomplete incumbent exit from competitive downstream markets
  - Reduces producer and consumer experimentation
  - Slows the innovation and new technology adoption that creates value for consumers
- Failure to quarantine the monopoly in restructured states has maintained entry barriers that slow/narrow/stifle experimentation
- Exception to watch: Texas

"… one of the consequences of regulation is regulation prohibits real innovation, because the regulation essentially defines a path to follow—which by definition has a bias to the current outcome, because it's a path for the current outcome."

Eric Schmidt, Google