

Innovation and Technology Forecast 2006-2010

MIT Enterprise Forum
10 January 2006

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Caveat Emptor

1. Never mistake a clear view for a short distance.
2. Existing technologies will continue to get better.
3. We always overestimate technology in the short term and underestimate it in the long term.

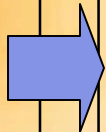
Overview

1. The most exciting science and the most stunning inventions will be in biotechnology and nanotechnology. *We are poised for breakthrough science.*
2. The most economic value will be realized through information technology. *We are poised for breakthrough applications.*
3. Regarding IT: the next five years will fulfill many of the promises, and some the fears, of the last five years.

Technology's disruption on business: Extend the edges, transform the core

Drivers

- Moore's Law (computing power)
- Reed's Law (network economics)
- Coasean Economics (transaction costs)



Technology

- Pervasive networks
- Tiny devices
- Intelligence
- Identity
- Web services

Example: General Motors's OnStar

2000 Hype

- 700 million hrs/wk in cars -- "eardrops"
- Connectivity, entertainment, and eCommerce gateway to car-bound passengers
- Multimedia data center and productivity tool
- \$1B in annual profits
- \$24B global market by 2005

2005 Reality

- Safety and security services focused on driving experience
- 4m subscribers
- 500k calls per month for emergencies, roadside assistance, and directions
- 20m cell phone minutes per month
- Pays for itself
- Many \$100m in warranty savings
- Improves cars
- Enhances customer relationships
- Increases appeal of GM cars

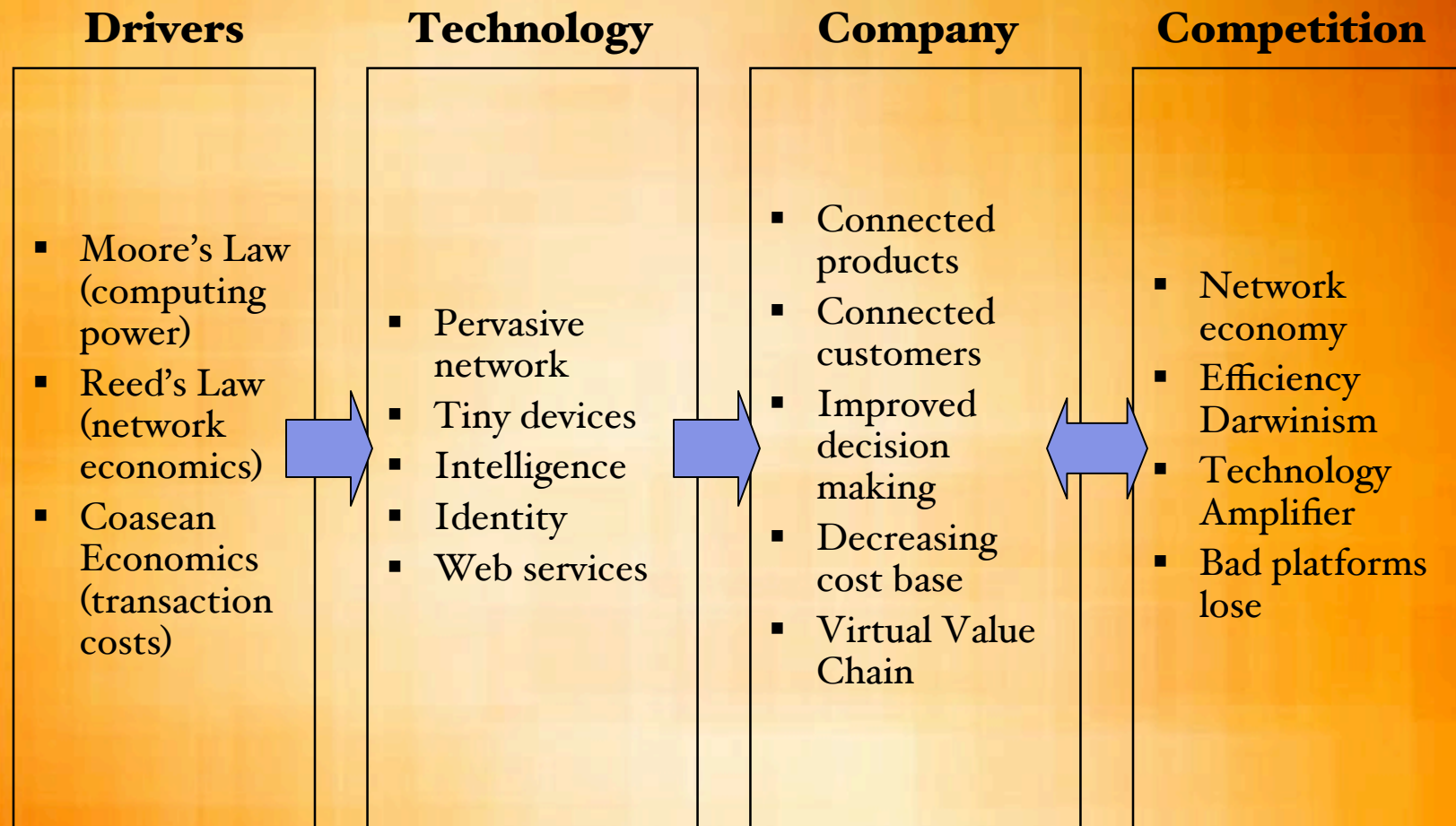
OnStar 2010

- OnStar will not solve GM's pension or healthcare problems but could be a platform for continuous innovation.

For example:

- Continuous contact with customers, e.g., immediate market research of all vehicles on the road
- Continuous diagnostics, e.g., emails from your car
- Downstream businesses through performance-based products, e.g., metered insurance, maintenance, service
- New network models, e.g., every car is a hotspot in dynamic WiFi or mesh network?
- New business models, e.g., from car manufacturer to fleet manager?

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Further references and discussion

1. PowerPoint slides and accompanying essay at blog -- <http://www.chunkamui.com>
2. Full text of *Unleashing the Killer App* available online at <http://www.killer-apps.com>
3. Email: ckm@cornerloft.com