Moore’s Law and More:
Fast, Cheap Computing and
What It Means for the Manager
The Speed Of Change

• Computers and computing power are constantly improving.

New technologies, including smart phones and the new iPad are revolutionizing how we think about computers.
Moore’s Law

Moore’s Law states that the chip performance per dollar doubles every 18 months.

Processing speed, storage capacity, and communication speed all continue to increase.

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What’s Inside?

- Motherboard
- CPU
- Ram
- Video Card
- Power Supply
- Hard Disk
- Optical Drive

Take an online tour at
http://www.youtube.com/watch?v=VWzX4MEYOBk
So Many Choices!

• Each time you shop for a computer there are different CPUs (chips) available.

• Each chip generation represents added performance.
• Advances in chip technology don’t work alone.
• Operating systems and software must be updated (and re-written) to take advantage of the new capabilities.
Into Your Hand

• Smart phones represent a technological leap, moving computing from the desktop or laptop and into the palm of your hand... wherever that is!
And Into The Clouds

• Cloud computing moves computing processes or resources from the user’s machine onto the Internet.

Tour a cloud computing data center
http://news.bbc.co.uk/2/hi/technology/7693993.stm
New Operating Systems

• The movement to smart phones means that new operating systems and software need to be developed to get the most out of the new hardware and networks.

Hear what Android means to software developers.
http://www.youtube.com/watch?v=1FJHYqE0RDg
The OS Race

- Apple, Google, Microsoft, and Blackberry are all racing to develop apps for their OS.
- Each app increases the value of their platform (network effects).

Who will win?
Networks

- Mobile computing networks are becoming an increasingly important piece of the computing equation.
Global Impacts

• The One Laptop Per Child initiative highlights how new grid networking technologies and efficient, solar-powered processors can bring technology to entirely new places.

Learn about the One Laptop Initiative
• All this change also means tons and tons of electronic waste.

• Unfortunately, much of this waste ends up overseas, where recycling or disposal bears high environmental and human costs.
Decisions, Decisions

- Strategic decision making is important in this constantly changing environment, especially mobile/wireless telecom environment.

- Companies expecting to find technological advantages tomorrow must evaluate and make strategic decisions today.