



Information Technology for Strategic Advantage

C16400

Introduction

Discussion Questions

- What are the differences between operation, tactical, and strategic approaches?
- How might you decide whether a question or a problem is strategic, tactical, or operational in nature?
- What kind of skills does a person need in order to deal with strategic, tactical, and operational problems?
- What are some examples of strategic problems related to information technology?

My Philosophy

- I genuinely believe that the greatest financial opportunities for many years to come will be presented to people who have a strategic perspective on technology and a global perspective on business. That does not mean that every manager needs to understand the intricacies of any one computer program; rather, it means that they need to be able to look at a new technology and recognize the impact that it can have on their business processes. My goal for this class is to help each of you hone your skills in this regard.

Our Roadmap

- We'll cover nine learning plans (LPs) that will help us look at technology differently and develop our skills as strategic thinkers.
- Each week you'll need to write a biography, a company profile, and article summaries.
- By the end of the term you'll also need to write a strategy paper and a book review.





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LP 1: The Four Periods

The Hardware Period

- Introduction of computing machines
- IBM, Intel, AMD, PARC, Corning, Apple, Motorola

The Software Period

- Introduction of computers as we know them
- Microsoft, Adobe, Oracle, Sybase, Sun

The Communications Period

- Rise of the network and Internet
- US Robotics, 3Com, Verizon, AT&T

The Business Processes Period

- Revolutionary ways to provide value, conduct transactions, broaden markets.
- Yahoo!, eBay, Google

What Does This Mean, Strategically?

- Before each period, you can look at the capabilities that were created during the previous periods and ask, "Okay, what's missing now? What do we need to get us to the next level?" Whatever that is, the innovators will make it a reality.
- Innovations, regardless of when they are developed, will not be adopted until the necessary precursors are sufficiently mature.



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Four Huge Trends

<p>Moore's (Gordon) Law</p>	<p>Moore's Law</p>
<p>Matcalfe's Law (the power of any network)</p>	$\frac{n(n - 1)}{2}$
<p>Inflection Points (Andy Groves)</p>	
<p>Globalization</p>	



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Ongoing Conflicts

- Proprietary vs. Standards
 - Open Source (GNU) vs. Windows®
 - IBM® PC vs. Macintosh®
- Brand vs. Commodity
 - IBM® PC vs. IBM Compatible
 - iPod® vs. MP3 Player
- Network vs. Client
- Centralized vs. Decentralized
- Innovation vs. Adaptation
 - Apple vs. Microsoft
- Strength in numbers and economies of scale vs. vulnerability for big targets (viruses for Windows®) and one-size-fits none
- Simplicity vs. Versatility
- Backward and Horizontal Compatibility vs. Speed and Ease of Use
- Structured and Controlled vs. Chaotic and Democratic
- What do you give away vs. what do you charge for?

A Snapshot of the Current Landscape...

Operating Systems <ul style="list-style-type: none">□ Windows®, Mac OS®, Unix and Linux	ERP Software <ul style="list-style-type: none">□ Oracle® and SAP®
Databases <ul style="list-style-type: none">□ Oracle®, MS SQL Server®	Websites Languages <ul style="list-style-type: none">□ HTML, Java®, Flash®

Who Do We Need Now?

- Master solvers of complex problems

What Comes Next?

- What is going to drive the next phase of the evolution? What is enabled by the convergence of the previous phases? What's missing now? Global learning, thinking, and problem-solving? Global markets? New materials, or nano-scale engineering? Expiration of patents introducing a flood of new technologies?