

**Preparation Sheet for MI 720 Computer Information Systems
Session #5, February 14, 2007: IT and Industry Transformation**

Session Overview

The competitive landscape in a particular industry is always changing. Usually these changes are gradual, but sometimes the fundamental basis of competition can go through dramatic shifts—due to business innovations, changes in technology, or changes in regulation. These transformations cause major turmoil, but also major opportunities. Only the most astute managers are able to successfully guide their firms through them. The IT industry itself is particularly subject to these transformations, and has, of course, been the *cause* of transformation in many other industries (music distribution, animated movie production, stock brokerage, travel agencies, retailing, to name a few).

In this session we will examine how firms can successfully navigate through major industry transformations. We will be using the PC industry from 1980-present, and in particular Apple's changing position in that industry, as a case study in industry transformation. The Apple Case will allow us to revisit and reinforce concepts related to strategy and competitive advantage introduced in Sessions #3 and #4. The case also provides a nice history of a crucially important industry (PCs), and an introduction to important emerging technologies (e.g., digital music).

The first part of class will be devoted to analyzing the Apple case. Then I will present a mini-lecture on Digital Rights Management.

Required Readings and Study Questions

1. Apple 2006 (course pack)

- **Central Challenge:** How to successfully navigate industry transformations.
- **Preparation Questions:**
 1. Historically, what were Apple's major competitive advantages?
 2. Analyze the structure of the personal computer industry over the last 15 years. (The 5 Competitive Forces model is helpful here.) How have the dynamics of the PC industry changed?
 3. Evaluate Apple's strategies since 1990.
 4. Has Jobs finally solved Apple's long-standing problems in the Mac business? Is the iPod different? What should Apple's strategy be going forward?

2. IT Tutorials: Mobile Technologies, Database

- **[How Cell Phones Work](#)** (Web)
 - Read all sections up to and including "Cell Phones and CBs". Also read the sections "Along Comes Digital" and "Cellular vs. PCS". Skim the rest.
 - **Key terms:** cell, channel, base station, MTSO, FDMA, TDMA, CDMA, GSM, PCS, 3G
- **[How Personal Digital Assistants \(PDAs\) Work](#)** (Web)
 - Read all sections
 - **Viewing and Printing Hints:** When you click on the "How Stuff Works" links you are taken to the "printable version" of the online articles. This has the whole article on one web page, and so it is convenient for printing. (I also prefer it for viewing.)

Optional reading: [Digital Right's Management \(DRM\): Media Companies' Next Flop?](#), Managing Technology @ Wharton, 2006