Chapter 1 - The Information Economy

The economic rules that governed the industrial age will continue to apply to the technological age. Although technology changes, economic laws do not.

Information is anything that can be digitized. Baseball scores, books, databases, magazines, movies, music, stock quotes, and web pages are all examples of information goods. Production of an information good involves high fixed costs but low marginal costs meaning that the cost of producing the first copy of an information good may be very high, but the cost of producing additional copies is negligible. Pricing of information goods must be made according to consumer value, typically with differential pricing – producing different versions of the information goods with different prices for different audiences. More in Chapters 2 and 3.

Information goods in digital form may be protected by patents, copyright, and trademarks, but they can also be perfectly copied and transmitted instantly around the world. This makes enforcement of legal protections very difficult. History has shown that it is often advantageous to content owners to relax management of their content. When managing intellectual property, effort should be given to choose the terms and conditions that maximize the value of the property, not the terms and conditions that maximize the protection of it. More in Chapter 4.

Almost every new product is an experience good, a good that must be experienced to value it. Information is an experience good every time it is consumed. Browsing (getting a glimpse before purchasing), branding (seal of quality), and reputation (value based on previous experience) are all strategies to get consumers to purchase information before they know what they are getting. More in Chapter 4.

Because information overload is so prevalent, it can be difficult to get consumers’ attention. Unlike previous forms of advertising in magazines, TV, and radio, the Web provides the means of targeting advertising to consumers based on their demographics and browsing habits. For example, free on-line services like Hotmail may require users to divulge personal information so they can target more appropriate ads to the user. The value of the Web is not necessarily in its amount of quality information but in its immediate access to information. The Web allows information suppliers to distribute up-to-date information dynamically from a variety of sources. It also allows businesses to retrieve data on customers, to engage in targeted marketing and to provide better customer service. More in Chapter 2 and 3.

Information systems are very complex and are made of an array of software and hardware components. Complementors (components that complement or are compatible with other components of a system) are necessary in an information economy. Companies must develop strategies to commoditize complementary products without eroding the value of its own.

When choosing which components to build, software to purchase, and technologies to build upon, companies must keep in mind the switching costs that they and their customers may incur in the future. Lock-in is common, occurring whenever users invest in several assets that complement each other (e.g., Microsoft Office) and only work for a particular information technology system (e.g., Windows). More in Chapter 5 and 6.

For many information technologies like telephones, e-mail, and IM, the value of the product to one user depends on how many others are also using the product. Such products exhibit network externalities or network effects. They often take a long time before becoming popular, but once they do, their popularity explodes. Marketing, managing customer expectations, and developing strategic alliances are frequently the keys to obtaining critical mass. More in Chapter 8.

Finally, it is very important to understand the rules of the game: antitrust policy and regulation in the telecommunications sector. The Sherman Anti-Trust Act has been used in the past to control monopolies, and it will continue to be applied in the information economy. More in Chapter 10.

Discussion questions:

1. Why does Apple have such a small penetration in the PC market, and what can they do to overcome it?
2. The authors believe that content holders “tend to be too conservative with respect to the management of their intellectual property” and then supported their argument with an example of how Hollywood initially opposed videotape recorders but now makes more money from video than from theatre presentations. Should Hollywood apply the lesson learned to the advent of DVD recorders?
3. What are some of the economic principles involved in the competition between Sony's Blu-ray and Toshiba's HD DVD formats as they try to become the next generation DVD format?
4. Why would a company make announcements about software that won’t be released for several months? Why might a company want to delay an announcement about software that they are soon to release?