Week 4

Topic One Questions

1. Read the case study at the end of Chapter 7 titled Google, Apple, and Facebook Struggle for Your Internet Experience. Compare the business models and core competencies of Google, Apple, and Facebook. (See Page 4)
2. Read the case study at the end of Chapter 7 titled Google, Apple, and Facebook Struggle for Your Internet Experience. Compare the business models and core competencies of Google, Apple, and Facebook. (See Page 4)
3. Hello Class,

The textbook glossary states that the Internet is a global network of networks using universal standards to connect millions of different networks. The Internet is named for "interconnection of computer networks". About.com states that “it is a massive hardware combination of millions of personal, business, and governmental computers, all connected like roads and highways. The Internet started in the 1960's under the original name "ARPAnet". ARPAnet was originally an experiment in how the US military could maintain communications in case of a possible nuclear strike. With time, ARPAnet became a civilian experiment, connecting university mainframe computers for academic purposes.” It’s interesting that the initial purpose of the Internet was not for civilian use and now millions of civilians use it on a regular base. Based on our discussion in class perhaps the Internet is still benefiting the government more than one knows. They have the ability to get any information they need about a most people from their Internet activity. Facebook as we discussed last week seems to bring lessen people judgment; it seems that people have no boundaries and the expose or say too much on their pages and others. As we mention in class things are magnified on there because so many people have access to it and it can make a minor issue into a major issue. The invention of the Internet has made the world a small place and connects people cross the world and informs us what’s going on around the world also. Unfortunately, like anything else people can use it for good or bad.

About.com also states that, "The World Wide Web, or "Web" for short, is that large software subset of the Internet dedicated to broadcasting HTML pages. The Web is viewed by using free software called web browsers. Born in 1989, the Web is based on hypertext transfer protocol, the language that allows you and me to "jump" (hyperlink) to any other public web page. There are over 40 billion public web pages on the Web today." The Web is not that old, although it seems like it is. Most people are under the impression that everyone has access to the web because most people they know do. The reality is that you can have the Internet without having the Web but you cannot have the Web without the Internet.

<http://netforbeginners.about.com/od/internet101/f/the_difference_between_internet_and_web.htm> I look forward to your discussions this week.

Regards,

Dr. Newman

Topic Two Questions

1. In this discussion we want to answer the question: "What are the principal components of telecommunications networks and key networking technologies?" Let's begin by describing the features of a simple network.
2. Hello Class,
Great start to this week's discussions.   Just want to add a few advantages and disadvantages to the technologies listed

Additional a few disadvantages of VoIP are:

  \* no service during power outage - traditionally phones maintained current through phone lines

  \* quality and reliability - since an internet connection is required, the connection is based on the reliability of the connection and quality could be compromised in poor connection

Advantage of Unified Communication:

 \* cost saving - by consolidating services and equipment, this

 \* improved productivity - ability to provide employees with smart phones and those working at remote distributed locations

Disadvantage of Wi-fi:

  \* range - you have to be within a certain distance to access

  \* reliability - wireless signals subject to loss

Does anyone in the class see a relationship between unified communications and VoIP? If so, what is it?

Thanks for sharing your thoughts with us.

Regards,

Dr. Newman

1. Hello Class,

VoIP and IP telephony are becoming increasingly popular with large corporations and consumers alike. For many people, Internet Protocol (IP) is more than just a way to transport data, it's also a tool that simplifies and streamlines a wide range of business applications. Telephony is the most obvious example. VoIP—or voice over IP—is also the foundation for more advanced unified communications applications—including Web and video conferencing—that can transform the way you do business.

Public Internet phone calling uses the Internet for connecting phone calls, especially for consumers. But most businesses are using IP telephony across their own managed private networks because it allows them to better handle security and service quality. Using their own networks, companies have more control in ensuring that voice quality is as good as, if not better than, the services they would have previously experienced with their traditional phone system.

<http://www.cisco.com/en/US/prod/voicesw/networking_solutions_products_genericcontent0900aecd804f00ce.html>

I look forward to hearing your thought this week.

Regards,

Dr. Newman

Case Study Google, Apple, and Facebook Struggle for Your Internet Experience

Three Internet titans—Google, Apple, and Facebook—are in an epic struggle to dominate your Internet experience, and caught in the crossfire are search, music, video, and other media, along with the devices you use for all of these things, cloud computing, and a host of other issues that are likely central to your life. The prize is a projected $400 billion retail e-commerce marketplace where the major access device will be a smartphone or tablet computer. Mobile devices with advanced functionality and ubiquitous Internet access are rapidly overtaking traditional desktop machines as the most popular form of computing. Today, people spend more than half their time online using mobile devices. These smartphones and tablets take advantage of a growing cloud of computing capacity available to anyone with a smartphone and Internet connectivity. It’s no surprise, then, that today’s tech titans are so aggressively battling for control of this brave new mobile world. Apple, which started as a personal computer company, quickly expanded into software and consumer electronics. Since upending the music industry with its MP3 player, the iPod, and the iTunes digital music service over a decade ago, Apple took mobile computing by storm with the iPhone, iPod Touch, and iPad. Apple wants to be the computing platform of choice for the Internet. Apple is the leader in mobile software applications, thanks to the popularity of the App Store, with over 1 million apps for mobile and tablet devices. Applications greatly enrich the experience of using a mobile device, and whoever creates the most appealing set of devices and applications will derive a significant competitive advantage over rival companies. Apps are the new equivalent of the traditional browser. Apple still leads in this area. Google, begun by Stanford computer science graduate students Larry Page and Sergey Brin as campus search engine BackRub in 1996, quickly attracted attention for its unrivaled ability to return relevant search results. It continues to be the world’s leading search engine. Advertising dollars follow page views, and Google’s search dominance quickly led to advertising ascendency. Between AdWords, its keyword-based search advertising product; AdSense, the most popular online advertising network; and DoubleClick, an intermediary between online publishers and ad networks that buys, sells, and conducts performance reporting on display advertising space, Google dominates online advertising. In 2005, Google had purchased the Android open source mobile operating system and founded the Open Handset Alliance in order to compete in mobile computing. Google provides Android at no cost to smartphone manufacturers and many different manufacturers have adopted Android as a standard. In contrast, Apple only allows its own devices to use its proprietary operating system and the hundreds of thousands of apps it sells can only run on Apple products. Since the first Android phone hit the market in October 2008, free, publicly available source code and permissive licensing have propelled Android to the top place in mobile operating systems. By early 2014, Android was deployed on nearly 58 percent of smartphones in the United States and over 80 percent worldwide. Android has also become the most common operating system on tablets worldwide. Aggressively following the eyeballs, Google purchased Motorola Mobility Holdings for $12.5 billion in August 2011. This move provided Google with 17,000 patents, with another 7,000 in the pipeline to help defend Android from the smartphone patent wars. Google is also innovating in mobile hardware platforms with its Nexus 7 tablet, Google Glass (a wearable computer with an optical head-mounted display described in the Chapter 5 Interactive Session on Technology), and plans for a modular smartphone that consumers can configure with different features, such as a camera or heart rate monitor. Whoever has the dominant smartphone operating system will have control over the apps where smartphone users spend most of their time and built-in channels for serving ads to mobile devices, for example, on Google-owned YouTube and the Google Maps app. Although Google search technology can’t easily navigate the mobile apps where users are spending most of their time, Google is starting to index the content inside mobile apps and provide links pointing to that content featured in Google’s search results on smartphones. The cost-per-click paid for mobile ads has trailed desktop ads. Google instituted a design change to merge PC ads and mobile ads and present a cleaner mobile search page. Users were increasingly consenting to click mobile ads and shop from their smartphones and tablets. Both changes began to strengthen overall ad prices. Furthermore, with its advertising networks still contributing 95% of its revenues, Google had to make sure that Facebook did not eclipse it as an advertising vehicle. It launched Google+ (Google Plus) in mid-2011, its fourth foray into social networking. With 300 million active users by March 2014, Google+ has surpassed Twitter. Rather than a single Web site, Google hopes to meld the social experience across all of its sites. Google+ has morphed from a social network into a gateway to Google’s package of services like Gmail, Google Docs, Google+ network, maps, hotel reservations, and more. With Google challenging Apple on every front, Apple’s profit growth has slowed in the past couple of years. Although Apple has a number of advantages in the battle for mobile supremacy, it faces strong competition in both the U.S. and developing markets like China from Samsung Android phones that have larger screens, and much lower prices. Sales of iPhones were slowing until it introduced the iPhone 6 iOS phone and Apple Watch in September 2014. Two million phones were sold in the first two weeks, twice the rate of previous iPhones. The iPhone 6 comes in a large screen version to compete directly with Samsung. Apple has on its side a history of market-moving innovations, and a loyal user base that has steadily grown and is very likely to buy future product and offerings. Apple has a legacy of innovation on its side. In 2011, it unveiled the potentially market-disrupting Siri (Speech Interpretation and Recognition Interface), a combination search/navigation tool and personal assistant. Siri uses Yelp for local business searches, tapping into its user recommendations and ratings. For factual and mathematical questions, it enlists Wolfram Alpha. Siri promises personalized recommendations that improve as it gains user familiarity—all from a verbal command. Customer response has been mixed. Google countered by quickly releasing its own AI tool, Google Now. Facebook, founded by Mark Zuckerberg and several Harvard friends in 2004, provided a way for local students to meet and share information online. Today it’s the world’s largest social networking service, with nearly 1.3 billion monthly active users. People use Facebook to stay connected with their friends and family and to express what matters most to them. Facebook Platform enables developers to build applications and Web sites that integrate with Facebook to reach its global network of users and to build personalized and social products. Facebook has persistently worked on ways to convert its popularity and trove of user data into advertising dollars, with the expectation that these dollars will increasingly come from mobile smartphones and tablets. Over 750 million people around the world used Facebook on an average day, and three-quarters of them log on using mobile devices. By the first quarter of 2014, mobile advertising accounted for 59 percent of Facebook’s revenue, with many of those ads highly targeted by age, gender, and other demographics. Facebook is now a serious competitor to Google in the mobile ad market and is even trying to compete with emerging mobile platforms, having purchased Oculus VR Inc., a maker of virtual-reality goggles, for $2 billion. In March 2013, Facebook overhauled its home page to increase the size of both photos and links and allow users to create topical streams. Job number one was to de-clutter smartphone screens. Marketers love larger pictures, both for their prominence and their greater persuasive impact. Job number two was to give advertisers more opportunities, and more interest information, with which to target market. A “personalized newspaper” with, for example, an op-ed feed featuring followed commentary pages, a sports section tailored to preferred events and teams, and a hometown news feed, will swell Facebook’s database with useful tidbits. Whether users oblige remains to be seen; a popular app, Flipboard, already serves users interested in creating topical and publication-based streams. Next, Facebook introduced a mobile application suite to replace the typical smartphone home screen. Facebook Home is an interface running on top of the Android operating system that essentially turns an Android mobile device into a Facebook phone. Home replaces the smartphone’s typical cover screen with Facebook content, such as photos, messages and status updates. Home still provides access to apps on the phone, but the experience is centered around Facebook. About the same time, Facebook also launched a new search tool to challenge Google’s dominance of search. Graph Search mines Facebook’s vast repository of user data and delivers results based on social signals, such as Facebook “likes,” and friend recommendations. It’s a more “social” way of searching than Google. If the desire for friend-based recommendations outweighs users’ reluctance to divulge more personal information, Graph Search may be a major revenue driver. While users may be enticed to check-in, and then assign stars or review local restaurants and styling salons, they are unlikely to reveal sensitive data such as their doctors’ identities or where their children go to school. Moreover, entering “liked” movies, books, and music, etc. takes time. Will users disclose sufficient data for searches to accurately list and rank results? With time and responsiveness to user practices, Facebook may uncover niche areas at which it excels. Even if it cannot directly rival Google’s advertising muscle, it should be able to chip away at its dominance. Facebook claims that using Graph Search to target Facebook users for advertising is forbidden, but no policy for supervision and sanctions has been revealed. Facebook is already under Federal Trade Commission (FTC) scrutiny, with independent privacy audits mandated for the next twenty years. Trust is the linchpin upon which Facebook’s strategy depends. Eroding user trust means less data to generate relevant search results and less impetus to use Facebook to connect to third-party sites and services. Facebook must tread carefully. But if Facebook can succeed in making itself synonymous with mobile access, the company could very well compete for global advertising dominance, with much of the world’s population just coming on line—on inexpensive Android smartphones.

Sources: EricBrian X. Chen, “Apple’s War on Samsung Has Google in Crossfire,” New York Times, March 30, 2014 and “For Hints at Apple’s Plans, Read Its Shopping List,” New York Times, February 23, 2014; Reed Albergotti, “Facebook Net Triples, Sales Up 72%,” Wall Street Journal, April 23, 2014; Sarah Frier, “Facebook Bets $2 Billion That Oculus Headset Will Anchor Social Life,” Bloomberg Business Week, March 26, 2014; Farhad Manjoo, “The Future of Facebook May Not Say ‘Facebook’,” New York Times, April 16, 2014; Jim Edwards, “Here Is The Little-Known Way Google Juices User Traffic On Google+,”Business Insider, March 31, 2014; “Android Grows to Almost 60% US Smartphone Marketshare in Q1 as iOS Drops,” 9to5google.com, accessed May 6, 2014; Evelyn M. Rusli, “The Challenge of Facebook’s Graph Search,” Wall Street Journal, January 16, 2013; Matthew Lynley and Evelyn M. Rusli, “What Is Facebook ‘Home’?”, Wall Street Journal, April 4, 2013; Somini Sengupta, “Fortunes of Facebook May Hinge on Searches,” New York Times, January 14, 2013, “Facebook Shows Off New Home Page Design, Including Bigger Pictures,” New York Times, March 7, 2013, and “Facebook Software Puts It Front and Center on Android Phones,” New York Times, April 4, 2013; John Letzing and Amir Efrati,“Google’s New Role as Gadget Maker,” Wall Street Journal, June 28, 2012.

Case Study Questions 7-13 Compare the business models and core competencies of Google, Apple, and Facebook. 7-14 Why is mobile computing so important to these three firms? Evaluate the mobile strategies of each firm. 7-15 What is the significance of search to the success or failure of mobile computing? How have Apple and Facebook attempted to compete with Google? Will their strategies succeed? 7-16 Which company and business model do you think is most likely to dominate the Internet and why? 7-17 What difference would it make to a business or to an individual consumer if Apple, Google, or Facebook dominated the Internet experience? Explain your answer.