

## Google, Apple, and Microsoft Struggle for Your Internet Experience

### CASE STUDY

In what looks like a college food fight, the three Internet titans—Google, Microsoft, and Apple—are in an epic struggle to dominate your Internet experience. What's at stake is where you search, buy, find your music and videos, and what device you will use to do all these things. The prize is a projected 2015 \$400 billion e-commerce marketplace where the major access device will be a mobile smartphone or tablet computer. Each firm generates extraordinary amounts of cash based on different business models. Each firm brings billions of dollars of spare cash to the fight.

In this triangular fight, at one point or another, each firm has befriended one of the other firms to combat the other firm. Two of the firms—Google and Apple—are determined to prevent Microsoft from expanding its dominance beyond the PC desktop. So Google and Apple are friends. But when it comes to mobile phones and apps, Google and Apple are enemies: each want to dominate the mobile market. Apple and Microsoft are determined to prevent Google from extending beyond its dominance in search and advertising. So Apple and Microsoft are friends. But when it comes to the mobile marketplace for devices and apps, Apple and Microsoft are enemies. Google and Microsoft are just plain enemies in a variety of battles. Google is trying to weaken Microsoft's PC software dominance, and Microsoft is trying to break into the search advertising market with Bing.

Today the Internet, along with hardware devices and software applications, is going through a major expansion. Mobile devices with advanced functionality and ubiquitous Internet access are rapidly gaining on traditional desktop computing as the most popular form of computing, changing the basis for competition throughout the industry. Research firm Gartner predicts that by 2013, mobile phones will surpass PCs as the way most people access the Internet. Today, mobile devices account for 5 percent of all searches performed on the Internet; in 2016, they are expected to account for 23.5% of searches.

These mobile Internet devices are made possible by a growing cloud of computing capacity available to anyone with a smartphone and Internet connectivity. Who needs a desktop PC anymore when you

can listen to music and watch videos 24/7? It's no surprise, then, that today's tech titans are so aggressively battling for control of this brave new mobile world.

Apple, Google, and Microsoft already compete in an assortment of fields. Google has a huge edge in advertising, thanks to its dominance in Internet search. Microsoft's offering, Bing, has grown to about 10 percent of the search market, and the rest essentially belongs to Google. Apple is the leader in mobile software applications, thanks to the popularity of the App Store for its iPhones. Google and Microsoft have less popular app offerings on the Web.

Microsoft is still the leader in PC operating systems and desktop productivity software, but has failed miserably with smartphone hardware and software, mobile computing, cloud-based software apps, its Internet portal, and even its game machines and software. All contribute less than 5 percent to Microsoft's revenue (the rest comes from Windows, Office, and network software). While Windows is still the operating system on 95 percent of the world's 2 billion PCs, Google's Android OS and Apple's iOS are the dominant players in the mobile computing market. The companies also compete in music, Internet browsers, online video, and social networking.

For both Apple and Google, the most critical battleground is mobile computing. Apple has several advantages that will serve it well in the battle for mobile supremacy. It's no coincidence that since the Internet exploded in size and popularity, so too did the company's revenue, which totaled well over \$40 billion in 2009. The iMac, iPod, and iPhone have all contributed to the company's enormous success in the Internet era, and the company hopes that the iPad will follow the trend of profitability set by these products. Apple has a loyal user base that has steadily grown and is very likely to buy future product offerings. Apple is hopeful that the iPad will be as successful as the iPhone, which already accounts for over 30 percent of Apple's revenue. So far, the iPad appears to be living up to this expectation.

Part of the reason for the popularity of the Apple iPhone, and for the optimism surrounding Internet-

equipped smartphones in general, has been the success of the App Store. A vibrant selection of applications (apps) distinguishes Apple's offerings from its competitors', and gives the company a measurable head start in this marketplace. Apple already offers over 250,000 apps for its devices, and Apple takes a 30% cut of all app sales. Apps greatly enrich the experience of using a mobile device, and without them, the predictions for the future of mobile Internet would not be nearly as bright. Whoever creates the most appealing set of devices and applications will derive a significant competitive advantage over rival companies. Right now, that company is Apple.

But the development of smartphones and mobile Internet is still in its infancy. Google has acted swiftly to enter the battle for mobile supremacy while it can still 'win', irreparably damaging its relationship with Apple, its former ally, in the process. As more people switch to mobile computing as their primary method for accessing the Internet, Google is aggressively following the eyeballs. Google is as strong as the size of its advertising network. With the impending shift towards mobile computing looming, it's no certainty that it will be able to maintain its dominant position in search. That's why the dominant online search company began developing a mobile operating system and its Nexus One entry into the smartphone marketplace. Google hopes to control its own destiny in an increasingly mobile world.

Google's efforts to take on Apple began when it acquired Android, Inc., the developer of the mobile operating system of the same name. Google's original goal was to counter Microsoft's attempts to enter the mobile device market, but Microsoft was largely unsuccessful. Instead, Apple and Research In Motion, makers of the popular BlackBerry series of smartphones, filled the void. Google continued to develop Android, adding features that Apple's offerings lacked, such as the ability to run multiple apps at once. After an initial series of blocky, unappealing prototypes, there are now Android-equipped phones that are functionally and aesthetically competitive with the iPhone. For example, the Motorola Droid was heavily advertised, using the slogan "Everything iDon't...Droid Does."

Google has been particularly aggressive with its entry into the mobile computing market because it is concerned about Apple's preference for 'closed', proprietary standards on its phones. It would like smartphones to have open nonproprietary

platforms where users can freely roam the Web and pull in apps that work on many different devices.

Apple believes devices such as smartphones and tablets should have proprietary standards and be tightly controlled, with customers using applications on these devices that have been downloaded from the its App Store. Thus Apple retains the final say over whether or not its mobile users can access various services on the Web, and that includes services provided by Google. Google doesn't want Apple to be able to block it from providing its services on iPhones, or any other smartphone. A high-profile example of Apple's desire to fend off Google occurred after Google attempted to place its voice mail management program, Google Voice, onto the iPhone. Apple cited privacy concerns in preventing Google's effort.

Soon after, Google CEO Eric Schmidt stepped down from his post on Apple's board of directors. Since Schmidt's departure from Apple's board, the two companies have been in an all-out war. They've battled over high-profile acquisitions, including mobile advertising firm AdMob, which was highly sought after by both companies. AdMob sells banner ads that appear inside mobile applications, and the company is on the cutting edge of developing new methods of mobile advertising. Apple was close to a deal with the start-up when Google swooped in and bought AdMob for \$750 million in stock. Google doesn't expect to earn anything close to that in returns from the deal, but it was willing to pay a premium to disrupt Apple's mobile advertising effort.

Undeterred, Apple bought top competitor Quattro Wireless for \$275 million in January 2010. It then shuttered the service in September of that year in favor of its own iAd advertising platform. IAd allows developers of the programs in Apple's App Store for the iPhone, iPad, and iPod Touch to embed ads in their software. Apple will sell the ads and give the app developers 60 percent of the ad revenue.

Apple has been more than willing to use similarly combative tactics to slow its competition down. Apple sued HTC, the Taiwanese mobile phone manufacturer of Android-equipped phones, citing patent infringement. Apple CEO Steve Jobs has consistently bashed Google in the press, characterizing the company as a bully and questioning its ethics. Many analysts speculate that Apple may take a shot at Google by teaming up with a partner that would have been unthinkable just a few years ago: Microsoft. News reports

suggest that Apple is considering striking a deal with Microsoft to make Bing its default search engine on both the iPhone and Apple's Web browser. This would be a blow to Google, and a boon to Microsoft, which would receive a much needed boost to its fledgling search service.

The struggle between Apple and Google wouldn't matter much if there wasn't so much potential money at stake. Billions of dollars hang in the balance, and the majority of that money will come from advertising. App sales are another important component, especially for Apple. Apple has the edge in selection and quality of apps, but while sales have been brisk, developers have complained that making money is too difficult. A quarter of the 250,000 apps available in early 2010 were free, which makes no money for developers or for Apple but it does bring consumers to the Apple marketplace where they can be sold other apps or entertainment services.

Google in the meantime is moving aggressively to support manufacturers of handsets that run its Android operating system and can access its services online. Apple relies on sales of its devices to remain profitable. It has had no problems with this so far, but Google only needs to spread its advertising networks onto these devices to make a profit. In fact, some analysts speculate that Google envisions a future where mobile phones cost a fraction of what they do today, or are even free, requiring only the advertising revenue generated by the devices to turn a profit. Apple would struggle to remain competitive in this environment. Jobs has kept the Apple garden closed for a simple reason: you need an Apple device to play there.

The three-way struggle between Microsoft, Apple, and Google really has no precedent in the history of computing platforms. In early contests it was typically a single firm that rode the crest of a new technology to become the dominant player. Examples include IBM's dominance of the mainframe market, Digital Equipment's dominance

of minicomputers, Microsoft's dominance of PC operating systems and productivity applications, and Cisco Systems' dominance of the Internet router market. In the current struggle are three firms trying to dominate the customer experience on the Internet. Each firm brings certain strengths and weaknesses to the fray. Will a single firm "win," or will all three survive the contest for the consumer Internet experience? It's still too early to tell.

**Sources:** Jennifer LeClaire, "Quattro Wireless to be Closed as Apple Focuses on iAd," *Top Tech News*, August 20, 2010; Yukari Iwatani Kane and Emily Steel, "Apple Fights Rival Google on New Turf," *The Wall Street Journal*, April 8, 2010; Brad Stone and Miguel Helft, "Apple's Spat with Google Is Getting Personal," *The New York Times*, March 12, 2010; Peter Burrows, "Apple vs. Google," *BusinessWeek*, January 14, 2010; Holman W. Jenkins, Jr., "The Microsofting of Apple?," *The Wall Street Journal*, February 10, 2010; Jessica E. Vascellaro and Ethan Smith, "Google and Microsoft Crank Up Rivalry," *The Wall Street Journal*, October 21, 2009; Jessica E. Vascellaro and Don Clark, "Google Targets Microsoft's Turf," *The Wall Street Journal*, July 9, 2009; Miguel Helft, "Google Set to Acquire AdMob for \$750 Million," *The New York Times*, November 10, 2009; Jessica E. Vascellaro, "Google Rolls Out New Tools as it Battles Rival," *The Wall Street Journal*, December 8, 2009; and Jessica E. Vascellaro and Yukari Iwatani Kane, "Apple, Google Rivalry Heats Up," *The Wall Street Journal*, December 10, 2009.

## CASE STUDY QUESTIONS

1. Compare the business models and areas of strength of Apple, Google, and Microsoft.
2. Why is mobile computing so important to these three firms? Evaluate the mobile platform offerings of each firm.
3. What is the significance of applications and app stores to the success or failure of mobile computing?
4. Which company and business model do you think will prevail in this epic struggle? Explain your answer.
5. What difference would it make to you as a manager or individual consumer if Apple, Google, or Microsoft dominated the Internet experience? Explain your answer.