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## Apple vs. Google

### How the battle between Silicon Valley's superstars will shape the future of mobile computing

By [Peter Burrows](#)

On Jan. 5, Google ([GOOG](#)) did a very Apple-like thing. In a presentation at the Googleplex in Mountain View, Calif., the 11-year-old search behemoth unveiled Nexus One, a stylish touchscreen smartphone that runs on the company's Android operating system, is sold through a Google-operated retail Web site, and greets the market with an advertising tagline ("Web meets phone") as simple and optimistic as the one Apple used in 2007 to introduce its iPhone ("The Internet in your pocket").

On the same day, Apple did a very Google-like thing. Steve Jobs, the king of splashy product launches and in-house development, announced a strategic acquisition. For \$275 million, Apple purchased Quattro Wireless, an upstart advertising company that excels at targeting ads to mobile-phone users based on their behavior.

When companies start to imitate one another, it's usually either an extreme case of flattery—or war. In the case of Google and Apple, it's both. Separated by a mere 10 miles in Silicon Valley, the two have been on famously good terms for almost a decade. Jobs and Google CEO Eric Schmidt, both 54, spent years in separate battles against Microsoft ([MSFT](#)) while Schmidt was at Sun Microsystems ([JAVA](#)) and Novell ([NOVL](#)). Over time, they went from spiritual allies to strategic ones. When Apple had an opening on its board in 2006, Jobs tapped Schmidt. "Eric is obviously doing a terrific job as CEO of Google," Jobs said at the time. Schmidt, meanwhile, called Apple "one of the companies in the world that I most admire."

Tensions in Silicon Valley's special relationship began to emerge in late 2007, when Google announced plans to develop Android for mobile phones. Apple had unveiled its iPhone in January of that year, and it was clear that the two companies would spar in the smartphone business. Still, both were niche players, with more formidable rivals in companies like Nokia ([NOK](#)), Samsung, and Research In Motion ([RIMM](#)). Only after software developers began creating thousands of mobile apps, and it became clear that phones would become the computers of the future, did the conflicts begin to grow serious. Last summer, Apple refused to approve two Google apps for sale to iPhone users, raising questions about how much of a Google presence Apple would allow on its devices. In August, Schmidt gave up his board seat. "Unfortunately, as Google enters more of Apple's core businesses," Jobs said at the time, "Eric's effectiveness as an Apple board member will be significantly diminished, since he will have to recuse himself from even larger portions of our meetings."

Now the companies have entered a new, more adversarial phase. With Nexus One, Google, which had been content to power multiple phonemakers' devices with Android, enters the hardware game, becoming a direct threat to the iPhone. With its Quattro purchase, Apple aims to create completely new kinds of mobile ads, say three sources familiar with Apple's thinking. The goal isn't so much to compete with Google in search as to make search on mobile phones obsolete. "Apple and Google both want more," says Chris Cunningham, founder of the New York mobile advertising firm Appssavvy. "They're gearing up for the ultimate fight."

Apple spokeswoman Katie Cotton declined to comment on the company's advertising plans or its relationship with Google. Google spokeswoman Katie Watson said the company would not make executives available for this story. She did provide a statement, attributed to Vic Gundotra, Google's vice-president of engineering: "Apple is a valued partner of ours and we continue to work closely with them to help move the entire mobile ecosystem forward."

## **THE MOVE TO MOBILE**

The tech industry has had its share of legendary rivalries: IBM ([IBM](#)) vs. Digital Equipment Corp., Microsoft vs. Netscape, America Online vs. Yahoo! ([YHOO](#)) Apple vs. Google could dwarf them all. Both companies are revered by consumers with a passion usually reserved for movie stars and pro athletes. They have multibillion-dollar war chests, visionary founders, and ambitions for smartphones, Web browsers, music, and tablet computers that set them on a collision course.

The key battleground in the near term is mobile computing. Analysts who once tingled when talking about the Internet are getting that same old feeling over mobile's potential. Morgan Stanley's ([MS](#)) Mary Meeker predicts that within five years more users will tap into the Internet via mobile devices than desktop PCs. Desktop Internet use led to the rise of Google, eBay ([EBAY](#)), and Yahoo, but the mobile winners are still emerging. "Now is the time to get going," says Doug Clinton, an analyst with Piper Jaffray ([PJC](#)). "It's about winning the battle today rather than getting into the fight tomorrow." Billions of dollars are up for grabs in selling phones, software, and services.

The money in mobile advertising is small—about \$2 billion last year, according to researcher Gartner, compared with \$60 billion for the overall Web. But figuring out how to make mobile advertising more profitable is a lot more important than merely getting in as the hockey-stick curve begins to move upward. A company that can nail mobile ads and share the wealth with the growing legion of app developers—freelance software writers who create all those sometimes-useful (Business Card Reader), sometimes time-killing (Flick Fishing) mobile programs—could pull in the best of the lot. Create the strongest ecosystem of apps and devices, and, the thinking goes, you leave rivals gasping to keep up. "The mobile platform that creates the most ways to make money wins," says David Hyman, chief executive of MOG, an Internet music service that's developing mobile apps.

Apple has a substantial lead in establishing this ecosystem. Developers have created more than 125,000 mobile applications for Apple devices—seven times as many as exist on Android—and the endless diversity of apps has helped the iPhone quickly pick up 14% of smartphone share, compared with 3.5% for all the Android-powered devices put together, according to estimates by the market research firm IDC. But in the past few months, an increasing number of app developers have complained that they couldn't make money on their work. Free apps have become the norm, and very few sell for more than 99 cents. Some developers have profited by embedding ads in their apps, but the payments tend to be insignificant since the ads are usually smaller, less effective versions of their Web banner forms. According to a source familiar with his thinking, Jobs has recognized that "mobile ads suck" and that improving that situation will make Apple even harder to beat.

Not one to shy away from a challenge, particularly when it offends his aesthetic sensibilities, Jobs and his lieutenants have discussed ways to overhaul mobile advertising in the same way they had revolutionized music players and phones, say two sources close to the company. The sources did not reveal specific plans at Apple but say there are several possible ad approaches. Apple could employ its user data and geo-location technology to make ads more relevant, so that a user cruising the mobile Web at lunchtime could receive an ad for specials at a nearby restaurant. It could also use the iPhone's capabilities in creative ways—say, having someone shake the device to win a rebate the same way they do to roll dice in games.

To pull any of this off, Apple realized that it needed a network of advertisers and the technology to target ads to customer behavior. In fall 2009, Apple entered the bidding for AdMob, the leader in the nascent mobile advertising industry. It was a target that made perfect sense; more than half of the AdMob ads served up on smartphones ended up on the iPhone or iPod Touch (which also

run Apple's apps). But before Apple could close the deal, Google intervened, announcing on Nov. 8 that it would pay a staggering \$750 million for the company.

Outbid on its first choice, Apple quickly turned to Waltham (Mass.)-based Quattro Wireless, AdMob's closest rival. Tellingly, when Apple announced the deal, Jobs gave Quattro CEO Andrew Miller the title of vice-president of mobile advertising. Vice-president is a rare title at Apple, and Miller is the first one ever assigned to online advertising. Apple has also hired an M&A specialist to better compete for deals (box).

For almost any company, taking on Google in search advertising would be folly. Google dominates traditional search with more than 65% of the market, and its share of search on mobile phones is even more imposing. More than a million businesses bid on keywords to show up alongside search results, and most experts have assumed a migration to mobile devices as more people use them for computing tasks.

Yet mobile search hasn't taken off. Gartner estimates that \$924 million was spent on mobile search ads worldwide last year, less than 2% of overall Internet advertising. The problem is that user behavior isn't consistent between desktops and mobile devices. Many people shy away from calling up minuscule search bars on their phones and pecking out queries using cramped keyboards. Search ads tend to be less effective, too, since people are reluctant to give over the one browser screen they have on a phone to an ad. In many cases, apps are far more effective; it takes fewer steps to find the best local sushi joint using apps from Urbanspoon or Yelp than to type out "best local sushi" into a search bar and navigate the results. "Eric Schmidt has said that the search problem is 99% solved, but, boy, is that self-serving," says Jonathan Yarmis, research fellow with the consulting firm Ovum. "The fact that I have to go to a search bar at all is a sign of failure."

Apple has a vault of valuable data that can help drive an ad business. It knows precisely which apps, podcasts, videos, and songs people download from iTunes; in many cases it has detailed customer information such as credit-card numbers and home addresses. That gives Apple a chance to blend advertising and e-commerce in new ways, particularly after the acquisition of Quattro. The startup already works with advertisers, including Ford ([F](#)), Netflix ([NFLX](#)), and Procter & Gamble ([PG](#)), to help them figure out when and where to place ads on the sites of publishers, such as *Sports Illustrated* and CBS News. By tying Quattro's ad-serving technology into its own, Apple would be able to tell advertisers how often and under what circumstances a person clicked on particular ads. "Apple is one of the few brands that could actually go head to head with Google," says Kevin Lee, chief executive of search marketing firm Didit. The technology could also be used on the tablet computer that Apple is expected to introduce later this month.

## **SAFETY IN NUMBERS**

When Google introduced Android in 2007, the company said it would concentrate on developing the operating system software and let traditional phone manufacturers, such as Motorola ([MOT](#)) and HTC, make the devices. The strategy was similar to Microsoft's in personal computers,

aimed at working with dozens of partners to attack every product area, geography, and demographic. "One or two devices don't matter," said Andy Rubin, head of Google's Android business, after the Nexus One event. "Twenty or thirty or a hundred devices, all running the same software—that's what matters."

Yet the arrival of Nexus One suggests that Google is concerned Android isn't gaining market share fast enough. "The volume, quality, and variety of Android phones in the market today has exceeded our most optimistic expectations," said Google Product Management Vice-President Mario Queiroz at the January announcement. "But we want to do more." The mobile market is so important that Google can't afford to depend on other companies for access; the Nexus One offensive, Google hopes, will establish a foothold in smartphones so the company can control its own fate.

Nexus One isn't without risk. Android hardware makers may balk at having to compete with their supposed partner. "If the Nexus One is any good, why would you buy anything else?" says Edward J. Zander, Motorola's former CEO, who is surprised Google would go so far as to enter the hardware fray. "At least Microsoft never built PCs."

Meanwhile, Google is aware of its vulnerability in mobile advertising and is pushing to make improvements. Schmidt believes mobile ads will one day be more important than PC advertising, largely because of personalization and localization. Although Google declined to discuss its plans for this story, Schmidt has floated the idea that eventually some mobile phones could be free for consumers, with advertising paying the bills. "If Google could do that, they'd be untouchable," says tech consultant John Metcalfe, who has worked with Google on mobile projects. "Apple wouldn't be able to come up with an answer for that."

Of course, Apple and Google could both end up thriving as computing goes mobile. But there will be losers. Microsoft is fading fast in smartphones as device makers shift attention away from Windows Mobile, which doesn't have nearly as many apps or developers as Android and Apple. Nokia, the world's largest mobile-phone maker, is struggling too; its Ovi online store toils in near-anonymity compared with Apple's iTunes store. Even Samsung and LG Electronics, Korean phonemakers long hailed for their advanced technology, are losing ground. "The older cell-phone makers never had to deal with software or software developers," says Shaw Wu, an analyst with Kaufman Bros. "It's just not in their DNA. [But] the world is moving that way."

## **BING IN THE WINGS?**

Some analysts believe the Apple-Google battle is likely to get much rougher in the months ahead. Ovum's Yarmis thinks Apple may soon decide to dump Google as the default search engine on its devices, primarily to cut Google off from mobile data that could be used to improve its advertising and Android technology. Jobs might cut a deal with—gasp!—Microsoft to make Bing Apple's engine of choice, or even launch its own search engine, Yarmis says. "I fully expect [Apple] to do something in search," he adds. "If there's all these advertising dollars to be won, why would it want Google on its iPhones?"

Whatever happens, it's clear that Apple and Google are headed for more conflict. Android is a threat to an iPhone business that has quickly come to represent more than 30% of Apple's sales. Meanwhile, nearly all the growth in search is expected to come from mobile devices, which Piper Jaffray predicts will account for 23.5% of all searches in 2016, up from less than 5% today. That sets the stage for a new main event in the tech sector. "This rivalry is going to accelerate innovation," says Andreas Bechtolsheim, a co-founder of Sun Microsystems and an early investor in Google. "Apple goes pretty fast, but having someone chasing you always makes you go faster. This is going to be good for consumers."

Still, in a battle over the future of computing, friendship will almost surely be a casualty of progress. "You can just feel the tension rising," says Piper Jaffray analyst Gene Munster. "Until the Nexus One, the competition was at arm's length. But the iPhone is Apple's darling. Now it's personal."

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### **Did Google Do the Right Thing in China?**

Google's decision to stop censoring search results in China sparked strong reactions. The Web site ChinaSmack, which translates Chinese Internet postings, collected many from the country's native speakers. "I applaud Google for...taking a stand on some very important issues," wrote one person. "This isn't Google making a moral stand," wrote another. "Google isn't making any money in China."

To find all the reactions, go to <http://bx.businessweek.com/google/reference>

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# THE SAME, BUT DIFFERENT

	GOOGLE	APPLE
<b>Date Founded</b>	1998	1976
<b>CEOs</b>	Eric Schmidt	Steve Jobs
<b>CEO salary</b>	\$1 a year	\$1 a year
<b>Headquarters</b>	The Googleplex, Mountain View	Infinite Loop campus, Cupertino
<b>Market cap</b>	\$186 billion	\$190 billion
<b>Revenue*</b>	\$22.6 billion	\$36.5 billion
<b>Motto</b>	Don't be evil	Think different
<b>Key to success</b>	Algorithms	Elegance
<b>Work ethic</b>	20% of employees' time for pet projects	120% of employees' time for Steve's projects
<b>The employees who matter</b>	Engineers	Designers
<b>How decisions get made</b>	Data, data, data	Because Steve says so
<b>Founders' aircraft</b>	Boeing 767	Gulfstream V
<b>Car of choice</b>	Toyota Prius	Mercedes SL55
<b>Big challenge</b>	Can they make money on anything but search?	Does anyone but Jobs have a vision?

Data: Bloomberg as of Jan. 13

\*for the 12 months ending Sept. 30



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## Collision Course

### Apple and Google, once close allies, are battling on a growing number of fronts

#### SMARTPHONES

Apple has ridden the iPhone to 14% of the smartphone market in three years. Google's original plan to let hardware partners make phones running its Android software has garnered only a sliver of the market. So Google, risking the ire of Android phonemakers, is launching its own Nexus One phone.

#### MOBILE SOFTWARE

The 125,000 apps iPhone users can download bolster the popularity of Apple devices and give it influence over how people use their phones. Rather than use Google's search, iPhone users can fire up the *New York Times* app for news or Yelp for local restaurants. Google is well behind with 18,000 Android apps.

#### ADVERTISING

Google's core business is advertising, with virtually all of its revenue coming from the text ads that pop up alongside search results. Apple aims to break into the mobile advertising business Google has been eyeing by creating new ways to advertise within apps on the iPhone and other Apple devices.

#### PERSONAL COMPUTERS

Apple still gets almost 40% of its revenue from Mac computers running its operating system. Now Google is developing Android to run competing machines and has designed a separate operating system, Chrome OS, for simpler computer Web surfing. Both companies will soon back tablets, too.

#### ENTERTAINMENT

While Apple has become the world's largest music retailer, Google just began using its search engine to direct people to Apple rivals to play and buy songs. Google owns YouTube, and Apple is adding more video to iTunes, reportedly including a push to offer cable-like subscriptions to shows from CBS, ABC, and others.



## ACQUISITIONS

Apple and Google, with \$23 billion and \$22 billion in cash and short-term securities, respectively, are competing increasingly for the same startups. Google won out in bidding for the ad service AdMob, then Apple outbid Google for the music site LaLa Media last year. Apple is adding people and processes to better compete for deals

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# Is Apple Ready for Merger Mania?

## The company has hired a banker from Goldman Sachs and looks to be in a more acquisitive mode

By [Peter Burrows](#)

Historically, Steve Jobs has not been the acquisitive type. Since he returned to Apple ([AAPL](#)) as chief executive in 1997, the company has bought only 11 small companies, far fewer than Silicon Valley counterparts such as Cisco Systems ([CSCO](#)) or Hewlett-Packard ([HPQ](#)). Google ([GOOG](#)) has bought 11 companies in just the past 18 months.

Last year, Apple quietly hired a Goldman Sachs ([GS](#)) investment banker, Adrian Perica, to help the company cut deals. Multiple sources close to Apple say they believe Perica is the first dedicated M&A specialist on staff. The company has also stepped up its pace of acquisitions: Three of Jobs' 11 deals have come in the past five months, including the \$275 million purchase of Quattro Wireless, the largest buy since Jobs' return. "Given Apple's strong stock price, it is in a position to be generous [in doing deals]," says Michael Kwatinetz, a general partner with venture capitalists Azure Capital Partners in the Valley. Apple spokeswoman Katie Cotton declined to comment on the company's acquisition strategy or whether it has had deal specialists on staff in the past.

Jobs has long preferred for his company to develop technology in-house and avoid the risks that come with integrating other companies into Apple's unique, finely tuned culture. In the past, there was no organized M&A effort, say three former executives at the company. Instead, business chiefs were supposed to keep an eye out for deals and go to Jobs if they thought there was a beneficial one to be made. After getting Jobs' O.K., the champion of the idea would pull together a team to make an overture, negotiate terms, and work through the administrative details. "It was super ad hoc," says one of the former executives.

But Apple lost out on a deal last year, in part because of its improvisational approach. As the company was negotiating with the mobile advertising firm AdMob last fall, Google swooped in and quickly bought the company for \$750 million.

Perica helped make sure Apple didn't make the same mistake with its next deal, say four sources familiar with the situation. Late last year, Apple entered the bidding for the online music site Lala.com, after Google and several other potential acquirers had gotten involved. The company moved unusually quickly, closing the deal in a few weeks, rather than the more typical two to three months. It was clear that Apple didn't want to lose out again, and especially not to Google. "They've always gone slow on M&A, but that's changing," says one Silicon Valley banker.

Perica has a reputation for being direct and likable. He graduated from West Point and was a U.S. Army officer before joining Goldman. While he doesn't report directly to Jobs and is not part of Apple's most senior team, "he brings a DNA that's not native to Apple," says an investment banker who has worked with the company.

There are obvious strategic reasons Apple might want to become more acquisitive. The company is moving beyond its traditional base in personal computers and charging into smartphones and mobile computing. As mobile computing takes shape, Apple, Google, Nokia ([NOK](#)), and other traditional tech titans have become more active in searching for startups that can help them with the new terrain. In Apple's case, it has a war chest of \$23 billion in cash and short-term securities to pursue acquisitions. "Their [business] model is evolving, and you can expect them to broaden their horizons," says Bill Whyman, an analyst with International Strategy & Investment.

Many experts believe Apple still won't be making any huge deals—the multibillion-dollar, headline-grabbing transactions other companies specialize in. Whyman says Apple has been an "organic grower" and will likely keep its acquisitions small. Rich Geruson, a former Nokia executive who sits on the boards of seven startups, says big companies like Google often wait to acquire a startup in an emerging field until they see which one is the most dominant. But that's not Apple. "The pattern I've seen with Apple is that they buy very, very small companies," he says.

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[How to Play It](#)

## Apple Vs. Google

Posted on January 13



The heated rivalry between [Google](#) and [Apple](#) extends to the stock market, where their shares jostle for pride of place in many technology investors' portfolios. With Bloomberg data showing the price-to-earnings ratios of both stocks higher than 85% of the companies in the Standard & Poor's 500-stock index, they may struggle to meet investor expectations.

Related story: [Why Apple And Google Can't Just Be Friends](#)

Investors flocked to Google and Apple in early '09 as it became clear that even a severe recession wouldn't stall them. Last year, Google's share price doubled; Apple's shot up 147%. Apple may be more likely to support its premium valuation. A long record of successfully jumping into new products leads many tech experts to see it as a pricey, but less risky, play. Google, 22 years younger, is still trying to expand beyond its core expertise in Net search.

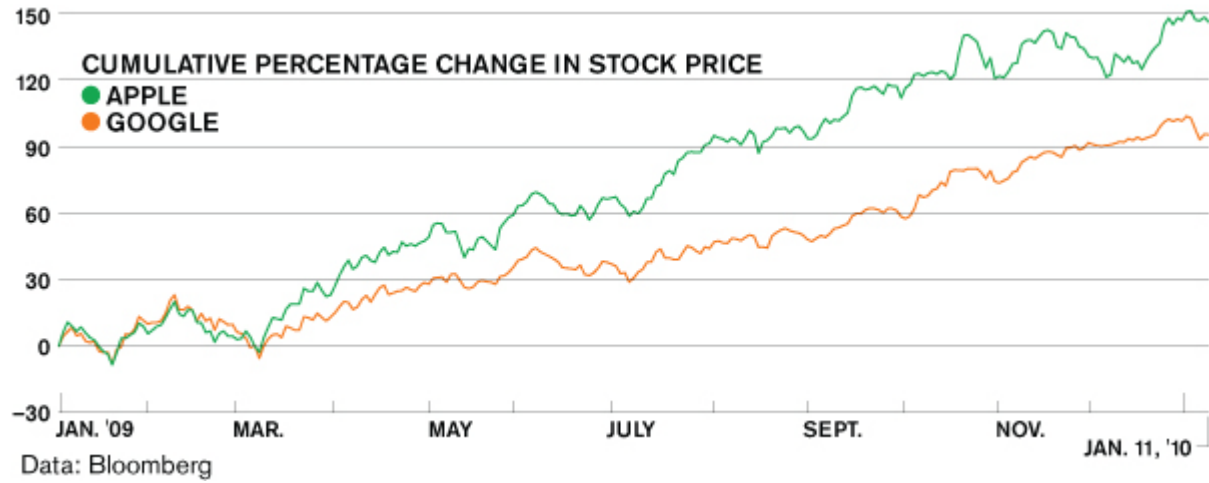
Alan Lantz, of wealth manager Alan B. Lantz & Associates in Toledo, Ohio, started buying Google and Apple shares in December, 2008. He stopped buying when Google, now at 600, passed the limit of 365 he had set for the stock last April. Apple, now at 210, passed his limit of 130 last May. Lantz raised his six-month price estimates in November, to a range of 620 to 680 for Google and 215 to 235 for Apple. "We like the companies but definitely wouldn't be buying them now," he says.

Google may prove more vulnerable to a weaker-than-expected recovery. In 2009, it maintained earnings growth by cutting costs, but sales growth over the past 12 months has slowed to 8.4%, from 31.4% a year ago. (Apple's sales rose at a 12.5% rate over the past year, about half the growth rate of a year ago.) "So much of Google's business model is based on advertising," says Michael Shinnick, a portfolio manager at Wasatch Advisors in South Bend, Ind. Web competition is pushing ad rates lower at the same time that the economic downturn has forced advertisers to slash their budgets. "It's going to be tougher for Google to put up the type of revenue they have had in the past few years," says Shinnick. The average analyst prediction for Google's sales growth is 16%, according to data compiled by Bloomberg, and 23% for Apple.

### **ECONOMIC WILD CARD**

Apple has shown a bit more resistance to the slowdown, and some analysts predict a bump from strong holiday results when it reports earnings on Jan. 25. Its advantage has been a steady rollout of new products that customers love. "I cannot point to another tech titan that has been able to innovate outside their primary product area," says Michael Pytosh, a technology analyst for the ING Growth & Income Fund. (His fund holds Apple but not Google.) Apple investor Ankur Crawford, vice-president and analyst at Fred Alger Management in New York, notes that despite the popularity of Macs and iPhones, Apple still has a tiny share of the market in personal computers and handsets. "[Apple] can essentially double their share in PCs and handsets," she says.

## PRICEY TECH PLAYS



As dominant players in fast-growing markets, both Apple and Google have advantages that justify paying more for their stocks than for those of rivals. In mobile phones, for example, competition could benefit both companies as they win market share from more established players. Still, serious challenges remain, and the markets they're in are changing rapidly. Tech consultant John Metcalfe frames the ongoing drama this way: "Google doesn't know what it's going to be yet. It's like [a batch] of corporate stem cells—genes trying to arrange themselves. Apple on the other hand, knows exactly what its game is. That's what makes this so fascinating."