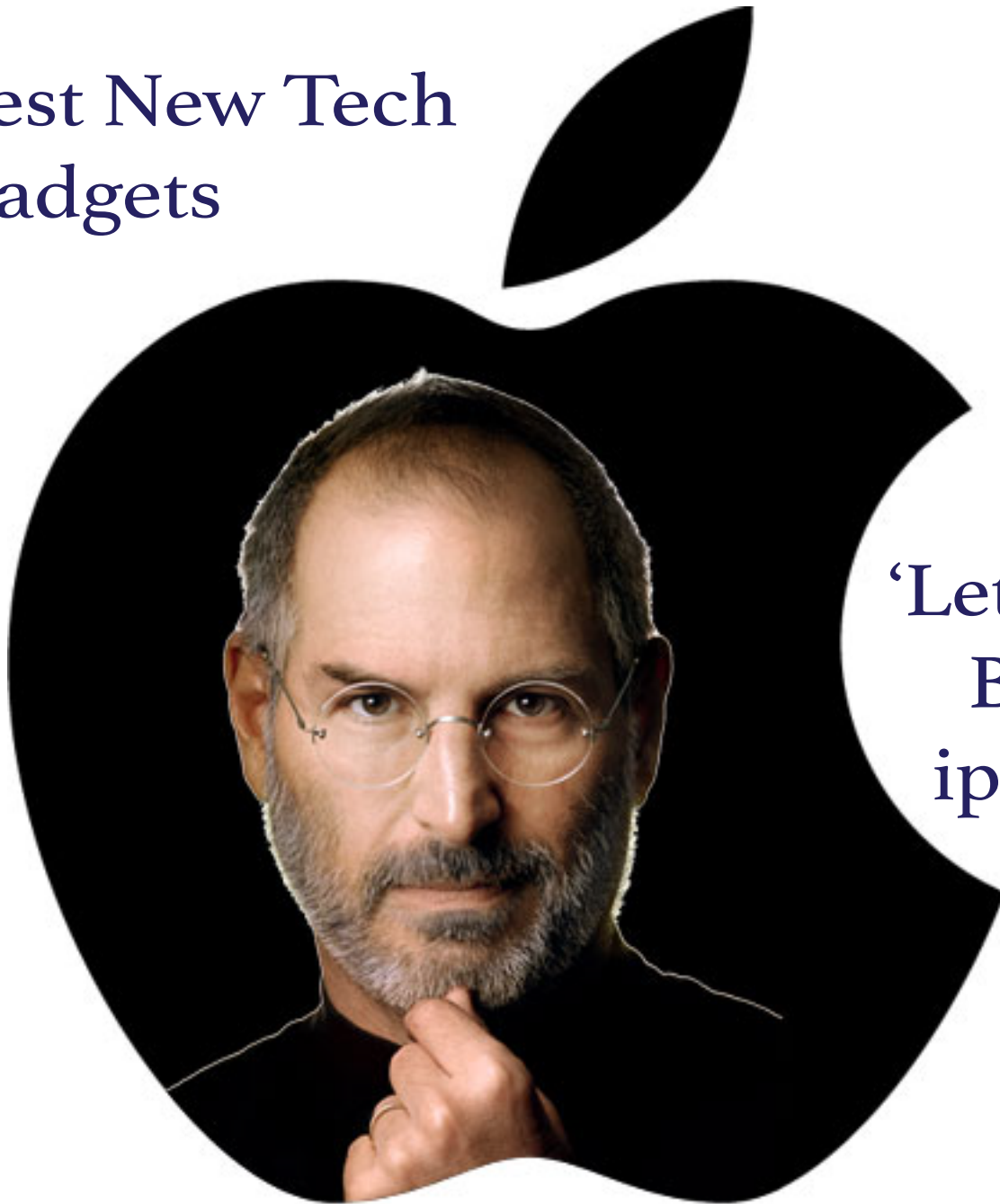


ALGORITHM

THE WORD'S LEADING GEEK MAGAZINE

Best New Tech
Gadgets



‘Let There
Be an
iphone’



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Fall 2014



Steven Paul Jobs (1955-2011)

The 55 miles from Campbell to San Francisco make for one of the nicest commutes anywhere. The journey mostly zips along the Junipero Serra Freeway, a grand and remarkably empty highway that abuts the east side of the Santa Cruz

Mountains. It is one of the best places in Silicon Valley to spot a start-up tycoon speed-testing his Ferrari and one of the worst places for cellphone reception. For Andy Grignon, it was therefore the perfect place for him to be alone with his thoughts early on Jan. 8, 2007.

This wasn't Grignon's typical route to work. He was a senior engineer at Apple in Cupertino, the town just west of Campbell. His morning drive typically covered seven miles and took exactly 15 minutes.

But today was different. He was going to watch his boss, Steve Jobs, make history at the Macworld trade show in San Francisco. Apple fans had for years begged Jobs to put a cellphone inside their iPods so they could stop carrying two devices in their pockets.

Jobs was about to fulfill that wish. Grignon and some colleagues would spend the night at a nearby hotel, and around 10 a.m. the following day they — along with the rest of the world — would watch

Jobs unveil the first iPhone. But as Grignon drove north, he didn't feel excited. He felt terrified. Most onstage

And Then Steve Said, ‘Let There Be an iPhone’

product demonstrations in Silicon Valley are canned. The thinking goes, why let bad Internet or cellphone connections ruin an otherwise good presentation?

But Jobs insisted on live presentations. It was one of the things that made them so captivating. Part of his legend was that noticeable product-demo glitches almost never happened. But for those in the background, like Grignon, few parts of the job caused more stress. Grignon was the senior manager in charge of all the radios in the iPhone. This is a big job. Cellphones do innumerable useful things for us today, but at their most basic, they are fancy two-way radios.

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The Myth of Steve Jobs’ Constant Breakthroughs

Let There Be an iPhone

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He had rarely seen Jobs make it all the way through his 90-minute show



without a glitch. Jobs had been practicing for five days, yet even on the last day of rehearsals the iPhone was still randomly dropping calls, losing its Internet connection, freezing or simply shutting down. "At first it was just really cool to be at rehearsals at all — kind of like a cred badge," Grignon says.

Only a chosen few were allowed to attend. "But it quickly got really uncomfortable. Very rarely did I see him

come completely un-glued — it happened, but mostly he just looked at you and very directly said in a very loud and stern voice, 'You are [expletive] up my company,' or, 'If we fail, it will be because of you.' He was just very intense. And you would always feel an inch tall."

Grignon, like everyone else at rehearsals, knew that if those glitches showed up during the real presentation, Jobs would not be blaming himself for the problems. "It felt like we'd gone through the demo a hundred times, and each time something went wrong,"

Grignon says. "It wasn't a good feeling." The preparations were top-secret. From Thursday through the end of the following week, Apple completely took over Moscone. Backstage, it built an eight-by-eight-foot electronics lab to house and

test the iPhones. Next to that it built a greenroom with a sofa for Jobs. Then it posted more than a dozen security guards 24 hours a day in front of those rooms and at doors throughout the building.

No one got in without having his or her ID electronically checked



iPhone
(January 9, 2007)



iPhone 3G
(July 11, 2008)



iPhone 3GS
(June 19, 2009)



iPhone 4
GSM model (black):
June 24, 2010

CDMA model (black):
(February 10, 2011)
GSM and CDMA
models (white): (April 28,
2011)



iPhone 4S
(September 2013)



iPhone 5
(September 21, 2012)



iPhone 5S
(September 20, 2013)



iPhone 6
(September 19, 2014)



iPhone 6
(September 19, 2014)

and compared with a master list that Jobs had personally approved. The auditorium where Jobs was rehearsing was off limits to all but a small group of executives.

Jobs was so obsessed with leaks that he tried to have all the contractors Apple hired — from people manning booths and doing demos to those respon-

sible for lighting and sound — sleep in the building the night before his presentation. Aides talked him out of it.

Grignon knew the iPhone unveiling was not an ordinary product announcement, but no one could have anticipated what a seminal moment it would become. As one of the iPhone's earliest engineers, he'd dedicated two and a half years of his life — often seven days a week — to the project. Grignon had been part of the iPhone rehearsal team at Apple and later at the presentation site in San Francisco's Moscone Center.

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Apple Product

In the span of seven years, the iPhone and its iPad progeny have become among the most important innovations in Silicon Valley's history. They transformed the stodgy cellphone industry. They provided a platform for a new and hugely profitable software industry — mobile apps, which have generated more than \$10 billion in revenue since they began selling in 2008. And they have upended the multibillion-dollar personal-computer industry. If you include iPad sales with those for desktops and laptops, Apple is now the largest P.C. maker in the world. Around 200 million iPhones and iPads were sold last year, or more than twice the number of cars sold worldwide. The impact has been not only economic but also cultural. Apple's innovations have set off an entire rethinking of how humans interact with machines. It's not simply that we use our fingers now instead of a mouse. Smartphones, in



iPhone 6

particular, have become extensions of our brains. They have fundamentally changed the way people receive and process information. Ponder the individual impacts of the book, the newspaper, the telephone, the radio, the tape recorder, the camera, the video camera, the compass, the television, the VCR and the DVD, the personal computer, the cellphone, the video game and the iPod. The smartphone is all those things, and it fits in your pocket. Its technology is changing the way we learn in school, the way doctors treat patients, the way we travel and explore. Entertainment and media are accessed and experienced in entirely new ways. And yet Apple today is under siege. From the moment in late 2007 that Google unveiled Android — and its own plan to dominate the world of mobile

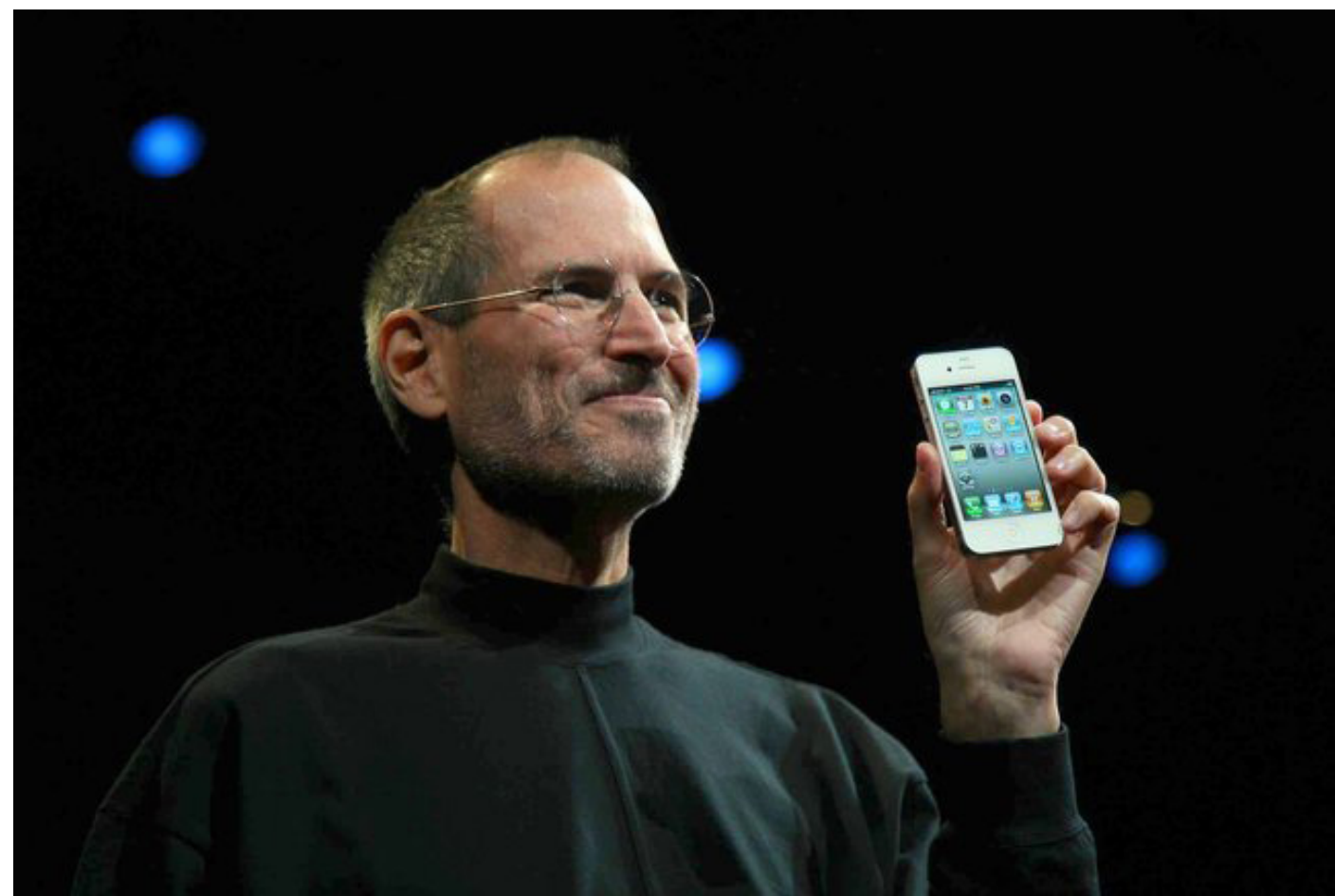
phones and other mobile devices — Google hasn't just tried to compete with the iPhone; it has succeeded in competing with the iPhone. Android has exploded in popularity since it took hold in 2010. Its share of the global smartphone market is approaching 80 percent, while Apple's has fallen below 20 percent.

A similar trend is under way with iPads: in 2010 the iPad had about 90 percent of the tablet market; now more than 60 percent of the tablets sold run Android. What worries Apple fans most of all is not knowing where the company is headed. When Jobs died in October 2011, the prevailing question wasn't whether Tim Cook could succeed him, but whether anyone could. When Jobs ran Apple, the company

was an innovation machine, churning out revolutionary products every three to five years. He told his biographer, Walter Isaacson, that he had another breakthrough coming — a

ago the company's stock price was at \$702 a share, making Apple the world's most valuable corporation. Today, it's down more than 25 percent from that peak.

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Steven P. Jobs introduced the iPhone 4 in San Francisco in 2010.

revolution in TV. But under Cook, nothing has materialized, and the lack of confidence among investors is palpable. Apple product announcements used to routinely send its stock soaring. When Cook presented the latest smartphones in September, the iPhone 5c and the iPhone 5s, Apple's stock fell 10 percent. A year

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“Innovation consists of people looking back at themselves and sing, ‘Here’s something that I really want that doesn’t exist’”

A conversation with
Steve Wozniak,
Co-Founder,
Apple Computer

uestions

Since doing so in the 1970s with Steve Jobs, Wozniak has turned much of his attention, time and money to education and new businesses. Presently serving as chief scientist at flash storage company Fusion-io, he also readily invests in new technologies and applications. “The best things that capture your imagination

are ones you hadn’t thought of before,” says Wozniak, “and that aren’t talked about in the news

all the time.” High on the list of ideal candidates are apps that take a smarter approach to the use of human speech, ones “where you talk to it like a normal person,” he says, “the way you would talk to a human being.” “I

could hit 8.9 million globally, hitting 214 million units by 2018. But Wozniak has already identified that the current models are too restrictive. “I want the entire smart phone, the entire internet, on my wrist,” he says. “I want a larger display than they’re starting with. They’re starting with [...] displays that are the size of the iPod nano, which is the size of an ordinary watch of the past. I think we’ve got to get a little beyond this watch of the past.” “I hope [a future smart watch is] independent, works on its own and is not connected with Bluetooth to the smart-phone in your pocket,” he adds, “but that doesn’t mean it would be bad if it were that way.”

Another notable product that will no doubt see considerable development over the next five years is Google Glass and Wozniak’s view on the system is pretty



Steve Wozniak ‘Best Brands 2013’