



# TECH MANIA 2.014





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## INTRODUCTION

# PROPHECY OVER PROFITS

The latest mini-me internet bubble is a mere shadow of the excesses that came crashing to an end in 2000. Sure, even though the run-up may have paused, the feverish signs are unmistakable. Dozens of companies are in line to float, hubris is rampant, oddball valuation metrics abound, and revenue-free startups are still worth fortunes. Even nerd culture has somehow become hip. The latest boom is as absurd as the last, but it's far smaller.

This year's first quarter saw 64 companies float in the United States. That's on track to beat the frenetic pace last year, when 222 companies raised \$55 billion in initial public offerings, according to Renaissance Capital. Both those numbers were the highest since 2000.



*The Wall St. sign is seen outside the door to the New York Stock Exchange in New York's financial district Feb. 4, 2014. REUTERS/Brendan McDermid*

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For some, selling out to existing giants is as attractive or more so than going public. Facebook just seized messaging service WhatsApp and virtual reality startup Oculus VR for \$19 billion and \$2 billion, respectively. The social network didn't even really try to justify the price tags in financial terms. And it doesn't have to, not just because investors are inclined to believe in founder Mark Zuckerberg's vision but because he has complete control thanks to super-voting stock.

A focus on tech prophecy, rather than profits, seems to have infected those living outside Silicon Valley too. Investors, underwriters and tech gurus are speaking in a specialized dialect of belief, peppered with ideas and phrases like MGABPPU, Hyperloop, AI singularity and super-unicorns.

It's an appealing world. The proportion of Harvard Business School graduates going into technology more than doubled over the past five years to 18 percent. There's ready funding for their dreams, too. Venture capital financing in the first quarter totaled \$15.6 billion globally – the highest figure since 2008, according to Prequin.

There's an international flavor, too. Silicon Valley's has always attracted ambitious engineers from around the globe. Many have returned home, fertilizing local tech clusters. A Russian venture capital firm, Digital Sky Technologies, is a big backer of private U.S. tech firms. Swedish game companies headquartered in London float in New York. And China's Alibaba – just one exemplar of the Middle Kingdom's own internet boom – has chosen the relatively flexible corporate governance of the United States for its \$100 billion-plus IPO.

Yet for all the hype, this bubble pales beside its predecessor 14 years ago. The tech-heavy Nasdaq 100 Index may have reached levels last seen in 1999, but adjust for inflation and the recent high in March was still about 40 percent below its 2000 peak. In contrast, the Russell 2000 index of small capitalization companies, adjusted for inflation, is 40 percent higher now than when the Nasdaq last topped out. Tech valuations may be surging, but it's not even close to recovering the heft lost following the last dot-com implosion.

Six of the 10 biggest companies in the S&P 500 Index were technology firms then, versus three now. In 1999, Microsoft traded at about 80 times historic earnings and Cisco Systems at around 180 times. Today's giants Apple and Google are valued at a relatively sober 13 and 26 times earnings, respectively. They aren't outliers: the Nasdaq overall trades at about 20 times earnings.

One big difference is that there were actually two bubbles in the late 1990s. The dot-com froth attracted more attention, but it was a sideshow to the far bigger telecommunications bubble. Telcos like WorldCom and Global Crossing went on an investment rampage, crisscrossing America with dark fiber and spending \$100 billion on spectrum auctions in Europe. Companies in the sector borrowed about \$2 trillion dollars globally in the five years ending in 2001 according to Thomson Reuters data.



The Twitter logo is seen on the floor before the company's IPO at the New York Stock Exchange in New York, Nov. 7, 2013. REUTERS/Lucas Jackson



Companies selling the gear needed for all the expected connectivity cashed in. Combined, Cisco, Juniper Networks, Lucent Technologies, JDS Uniphase and Nortel Networks were worth more than \$1 trillion at the height of the boom. Once debt-laden reality intruded, the top five equipment makers lost 90 percent of their market value in fifteen months.

Fast forward to the present day, and of course valuations could crack. With start-ups valued on revenue multiples or website visitors, it's safe to assume some of them won't stand the test of time. But the hottest sectors of the market, like social networking, software as a service and companies led by entrepreneur Elon Musk are relatively small. Cisco's market capitalization in 2000 was greater than the combined value today of Amazon, Facebook, Twitter, LinkedIn, Salesforce, Workday, Splunk, ServiceNow, NetSuite, Tesla and SolarCity.

Moreover, this round isn't centered on expensive internet infrastructure. It's about making use of data. That's a far cheaper exercise, and giants like Google and Facebook have balance sheets chock full of cash, not overflowing with debt. Not only is the scale smaller, but there's no danger of a leverage hangover. A breather in the tech stock surge might or might not herald a broader downturn. Even if it does, this time it won't be the tech sector that causes serious damage.

*Robert Cyran*  
*Columnist, Reuters Breakingviews*  
*May 2, 2014*

## SOLID FOUNDATIONS

Facebook's disastrous IPO in May 2012, where the company's market capitalization was cut in half in three months, led many investors question the merits of new tech firms, and claims in Silicon Valley that there was little need for companies to go public. That attitude proved short-lived. Facebook's seemingly quixotic deal for Instagram soon proved a surprising success. A booming market for mobile advertising sent Facebook's stock flying upward. And Facebook founder Mark Zuckerberg changed his mind on the merit of going public. Here are some of our stories on the roots of today's mania.

## SNAPPING A RIVAL

**FACEBOOK BUYS INSTAGRAM – THE DEAL IS NOW WIDELY REGARDED AS HUGE SUCCESS.**

Facebook's defensive purchase of Instagram raises a red flag. Online photos are supposed to be a core Facebook competence. Paying \$1 billion for the popular picture-sharing app may boost the social network in mobile. But paying over the odds for revenue-free rivals is usually the hallmark of anxious, mature firms – not a growth company seeking to go public at a \$100 billion valuation.

It's impossible to say exactly what Facebook gets for the oodles of cash and stock it is handing over to Instagram, founded just two years ago by Kevin Systrom and Mike Krieger. Traditional metrics don't apply – Instagram is just embarking on an actual business plan, and the firm was worth just \$20 million a year ago. What it does have are lots of users – more than 30 million – and super-fast growth. More than 1 million more users signed up in 12 hours for its new Android app last week.

Facebook is clearly acquiring the firm for other reasons. People are spending an increasing amount of time connecting via their mobile phones. This shift is worrying for the formerly desktop-focused Facebook, whose own prospectus warns of the risks to its business of an increasingly mobile internet. Most smartphones use operating systems made by Apple and Google. If Facebook doesn't run well on these phones, rival social networks such as Google + could get a leg up.

Buying two-year-old Instagram could help give Facebook the whip hand. It hopes to use the experience it is gaining to "build similar features in our other products." Instagram has figured out the easiest way to date of

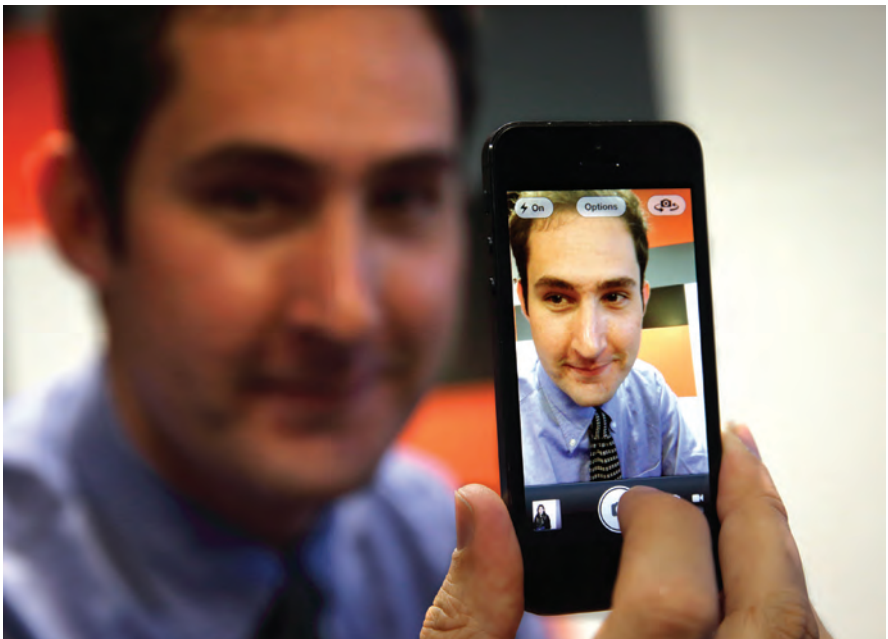
## BREAKINGVIEWS

putting pictures on the web, and how to capture the attention of mobile users. These are valuable skills and tools in Facebook's fight against other social networks.

What's worrying for potential Facebook investors is why Mark Zuckerberg and his merry hackers couldn't produce their own version of Instagram. He says this is a one-off. "But providing the best photo-sharing experience is one reason why so many people love Facebook and we knew it would be worth bringing these two companies together."

The precedent is worrisome, though, if it means every time a startup encroaches on one of Facebook's presumed strengths it will need to take out its pocketbook to defend its turf. That's hardly a robust justification for a lofty valuation.

*Robert Cyran, April 9, 2012*



*Kevin Systrom, chief executive of Instagram, at the LeWeb technology conference near Paris Dec. 4, 2012. REUTERS/Philippe Wojazer*

## MOBILE DOLLARS

### MOBILE ADVERTISING STARTS TO BOOM.

An advertising boom could play out on every smartphone screen in 2013. Internet firms moaned for years that users spent lots of time surfing the Web on their desktops, but marketing dollars weren't following from print and TV. Time and the growth of broadband have mostly closed the gap. The surge in smartphone and tablet use is now providing similar fuel for mobile advertising.

There's no iron rule, but what advertisers spend and how people consume media seem related over the longer run. Five years ago, 29 percent of users' media time involved the internet but their screens attracted only 8 percent of ad spending, according to Forrester Research. Now, 26 percent of time is devoted to internet browsing, and that brings a much closer 22 percent of



*A cashier counts U.S. dollars next to five new Apple iPhone 5S phones at the Apple Retail Store in Manhattan, New York Sept. 20, 2013. REUTERS/Adrees Latif*

## BREAKINGVIEWS

ad dollars, as Mary Meeker of Kleiner Perkins noted recently. U.S. ad spending on the internet has ballooned to \$30 billion, the Interactive Advertising Bureau reckons, up 76 percent since 2006.

Web advertising really took off after 2007, when for the first time half of U.S. homes had broadband access, according to the Department of Commerce. Ads loaded faster, companies became more comfortable promoting themselves on the Web, and the development of better analytics meant improved customer targeting.

A new mismatch has emerged. Some 10 percent of media time was spent on mobile devices in 2011, yet they only attracted 1 percent of ad spending. Closing that gap would result in nearly \$15 billion in mobile ad revenue in the United States alone. That's a conservative estimate, as mobile gadgets continue to proliferate and draw more of users' attention.

This gap, too, should close. Half of U.S. cellphone customers now have smartphones, and the number is growing rapidly. That means faster downloads and larger screens to view promotions – echoes of the shifts in desktop Web use five years ago. Analytics have improved for mobile ads, too.

Facebook only started gunning for smartphone and tablet ads earlier in 2012. By the end of the third quarter that business was running at \$1 billion a year, with sales still increasing. Google expects to reap \$8 billion this year worldwide from mobile ads, three times as much as last year. Smaller concerns like Pandora and Yelp are reporting similar trends. Expect much more of the same, coming to a smallish screen near you.

*Robert Cyran, Dec. 18, 2012*

## GRACEBOOK

**FACEBOOK FOUNDER MARK ZUCKERBERG CHANGES HIS MIND, AND DECIDES GOING PUBLIC IS A GOOD FOR THE COMPANY.**

Mark Zuckerberg's new religion should attract plenty of disciples. The Facebook founder's early contempt for the idea of an initial public offering was supposed to influence a generation of Silicon Valley entrepreneurs. The stock's calamitous debut in May 2012 only reinforced the resistance. Zuckerberg and Facebook have come around, though – and many others are set to follow.

Facebook's antisocial attitude to public shareholders derived from Zuckerberg's worry that the market glare would distract his engineers and undermine the company's hacker culture. Even after triggers in securities laws made it all but impossible for Facebook to remain private, Zuckerberg's hoodie-clad reluctance was palpable. Then, once publicly traded, the shares swiftly halved, confirming the fears of so many wunderkinds with an app and a dream.

Marc Andreessen, a tech high priest whose venture capital firm Andreessen Horowitz has backed dozens of firms including Facebook, shared Zuckerberg's skepticism. As recently as July, he was saying "the IPO market is deeply broken" with startups growing quickly and delaying the sale of their shares to the public. The new U.S. JOBS Act also makes it easier for private firms to put off the decision to go public and to raise capital by other means.

The Valley's hymn sheet is changing, though. At a summertime Fortune gathering of technology executives, Bill Gurley, a partner at rival early-stage investment firm Benchmark, exalted founders like Amazon's Jeff Bezos and Salesforce's Marc Benioff for embracing Wall Street's bright lights. And public markets are functioning just fine. In 2010, 70 U.S. venture capital-backed companies went public, according to Thomson Reuters. That's consistent with pre-crisis 2006 when there were 67 such IPOs, and even pre-tech-bubble 1998, when there were 78.

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Zuckerberg is also now a convert. A tripling of the company's shares to a level well above the issue price will have helped persuade him Facebook's IPO was a good thing. And new tech issues of late have attracted eager followers. For example, shares of Veeva, a cloud-based software company, nearly doubled in their debut on Oct. 16.

Devotees of Zuckerberg's achievements are dropping the old anti-IPO orthodoxy. Investors and bankers say dozens more venture capital-backed debuts are coming, many of them filed confidentially for now under the JOBS Act. It's hard not to bow to the almighty dollar.

*Jeffrey Goldfarb, Oct. 17, 2013*



*Facebook Chief Executive Officer Mark Zuckerberg smiles in the stage before delivering a keynote speech during the Mobile World Congress in Barcelona Feb. 24, 2014. REUTERS/Albert Gea*



## CHARGING AHEAD

**TESLA WINS CAR OF YEAR – A FEW MONTHS LATER ITS STOCK STARTS HUGE CLIMB.**

Tesla's risky vision for the car of the future is putting Detroit to shame. The Silicon Valley-based electric carmaker run by Elon Musk is racking up some prestigious awards for its new sedan. On Nov. 12, Motor Trend became the third respected industry publication to bestow the Model S with a 2013 Car of the Year gong. That's better than Motown, European or Japanese manufacturers managed.

Several of Tesla's giant competitors have made decent forays into electric vehicles, whether hybrid or fully battery-powered. But the Model S is in a different class. The sleek new sedan has space for up to seven. It's fast, with some versions speeding from zero to 60 miles an hour in about four seconds. It's full of the latest gadgets, from a 17-inch touch-screen control



*Tesla Chief Executive Elon Musk speaks at his company's factory in Fremont, California, June 22, 2012. REUTERS/Noah Berger*

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panel to automatically retracting door handles. And it can travel as far as 300 miles on one charge, and be ready to go again after 30 minutes plugged into a high-power charging station.

These are the kinds of results most in the car industry establishment had long dismissed as impossible to achieve – a point made several times at a New York event on Nov. 12 by an ebullient George Blankenship, a former Gap and Apple retail executive who is now Tesla's head of sales and ownership.

Musk started Tesla with grand ambitions to compete initially at the high end of the market, something the company's awards suggest he has nailed. The 41-year-old is used to going out on a limb, having quit graduate school to set up PayPal before founding Tesla – and rocket and spacecraft manufacturer SpaceX. Bosses at bigger carmakers may feel encumbered with a more incremental, lower-risk approach.

The \$3.6 billion Tesla has also had to deal with crises from cash squeezes to a year-long halt to production to the death of three top employees in a plane crash – not to mention funding hefty research and development outlays with positive free cash flow still only expected toward the end of this year at the earliest.

Musk's next challenge is to turn a low-volume showstopper into a consistently profitable business. It's a tough road. At almost \$50,000 for the most basic model, the Model S is unlikely to tempt the masses away from increasingly fuel-efficient gasoline chuggers available for half the price. But given Tesla's success so far, larger rivals should be paying close attention.

*Antony Currie, Nov. 13, 2012*

## PRIVATELY PUBLIC

While new moguls like Facebook Chief Executive Mark Zuckerberg preached the merits of going public, Silicon Valley was skeptical of allowing other investors to call the shots. Steve Jobs' ousting at Apple in the 1980s and triumphant return created the perception that charismatic founders needed to entrench their leadership, allowing companies to invest for the long run. Investors, hungry for growth, allowed companies to invent a welter of new schemes to concentrate power in founders' hands. Zuckerberg and fellow founders quickly put the power to use.

## THREE RING CIRCUS

ZYNGA INTRODUCES THREE-CLASSES OF STOCK.

It's bad enough for shareholders when companies have two sets of shares. Now Zynga, the online gaming company, is going for three in its initial public offering, with founder Mark Pincus in a class of his own. The innovation shouldn't be copied.



*Playtester Joshua Drake works on a game at Zynga headquarters in San Francisco, California, April 23, 2013. REUTERS/Robert Galbraith*

## BREAKINGVIEWS

New investors can buy class A Zynga shares that come with one vote each. The company hasn't yet said how many votes will be allotted to B shares held by employees and other early backers or to C shares owned by Pincus. Zynga concedes this will concentrate insider control. And significantly, when B class shares are sold, they surrender their multiple voting rights, meaning Pincus could wind up with added control over time.

The ownership structure should free management to invest the newly raised capital to help cement the firm's position as a social gaming leader. But companies tend to suffer more than they benefit from dual classes of stock. One study found they trade at lower multiples than their single-share-class rivals, and that eliminating multiple voting rights typically unlocks value of at least 5 percent.

News Corp, Google and others already labor under such regimes. Magna International minority holders paid the chairman of the car parts maker a dear \$1 billion to unshackle the dual-share structure last year. And investors have several more reasons to fear unequal voting rights.

Executives with control may turn down takeover bids, despite a premium, because they enjoy the power and perks of their positions. Managers also are less likely to step down if they're doing poorly. Finally, executive salaries at dual-class firms tend to be higher and the framework can encourage self-dealing.

There may already be small hints of such concerns at Zynga. For instance, the firm is paying Pincus' sister, a professor who has worked on poverty issues, \$5,000 a month to act as the director of its affiliated non-profit. And it shelled out \$400,000 to Pincus for office space he owns.

These issues may have benign explanations and seem remote to potential Zynga investors who are probably eager to get their hands on the hottest new tech stock. They're also presumably keen to keep Pincus happy, given his role creating what could be a \$20 billion powerhouse. But they should be fully aware of just how big the price could be one day.

*Robert Cyran, July 6, 2011*

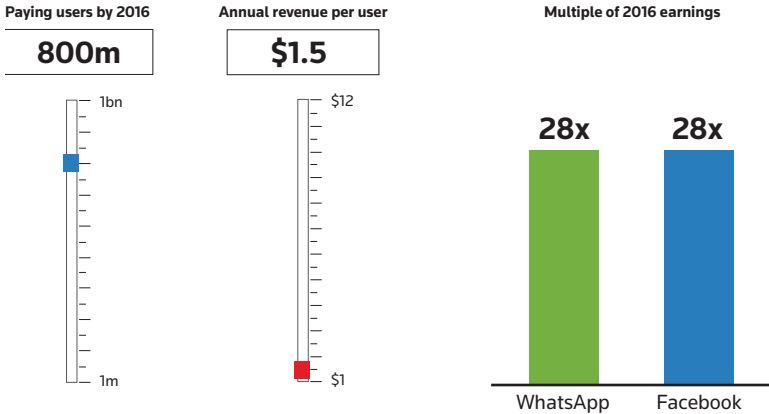
## MADNESS OF INDIVIDUALS

### FACEBOOK BUYS WHATSAPP.

No algorithm based on terrestrial mathematics can make Facebook's WhatsApp deal compute. Mark Zuckerberg's social network is committing to spend \$19 billion for the 55-employee, 450 million-user, ad-free messaging service. Facebook says growth is the point, not making money. That's the kind of magical thinking shareholders signed up for when they surrendered control to the founder.

### How could Facebook justify WhatsApp's price tag?

What social network needs to do to make the messaging deal stack up



John Foley, Robyn Mak, Katrina Hamlin, C.Trevethan 24/02/2014

Note: Assumes 80 pct market share and 15 pct tax rate in

[Click on the graphic to view online, interactive version.](#)

Facebook says the valuation was justified by the ruddy health of the network WhatsApp has created. The company is adding 1 million new users daily. On that basis, Facebook is paying around \$40 for each of them. Using that arithmetic from another planet, the deal compares favorably to the \$3,000 or so that Comcast is paying for Time Warner Cable customers, who pay something like \$80 a month for its services.

But size is what matters in the Zuckerberg view of the world. And WhatsApp, whose co-founder in fine Silicon Valley fashion is the child of immigrants, is on its way to 1 billion users. Networks that large are inherently valuable. Twitter and LinkedIn are both worth more than \$20 billion. China's Tencent is worth

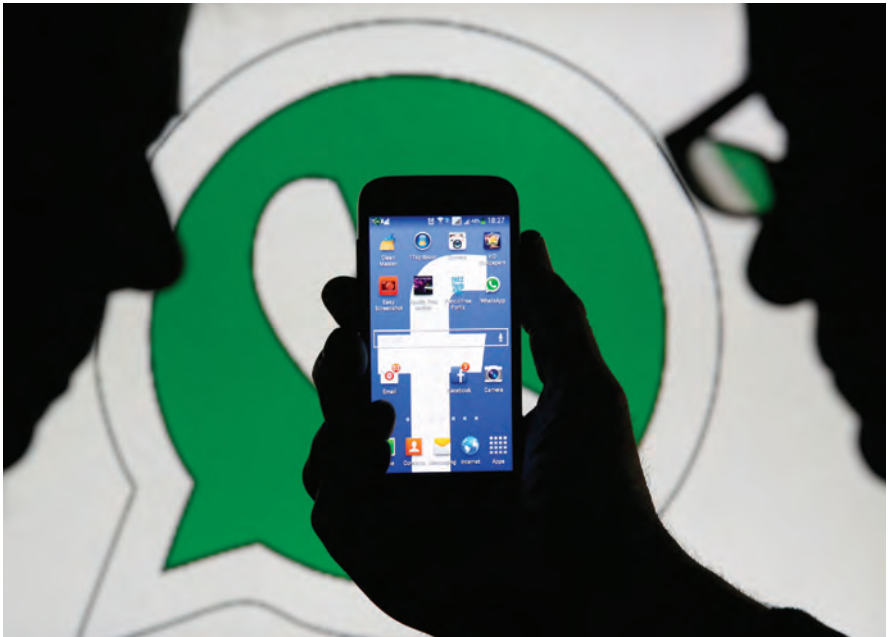
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about \$140 billion. And Facebook is worth \$173 billion. These valuations are predicated on extraordinary growth. Facebook, for example, trades at more than 50 times estimated 2014 earnings.

Zuckerberg is similarly taking a long-term view on WhatsApp's profitability. And with his control of the company indisputable, notwithstanding the dilution this deal will inflict upon shareholders, it's his prerogative. Facebook thinks the acquisition will pay off over the next decade. That's a long-time for any company built upon social trends.

But ten years is the age that Facebook itself now faces. And it is not aging with obvious grace. Deals escalating in size, and seeming desperation, since the \$1 billion gulp of Instagram are a worrying signal that Facebook is looking in the rear window, playing defense, rather than innovating in its own right.

*Robert Cyran, Feb. 20, 2014*



*A man holding a smartphone with a Facebook logo as its screen wallpaper in front of a WhatsApp messenger logo, in Zenica, Bosnia, Feb. 20, 2014. REUTERS/Dado Ruvic*

## VIRTUAL CAPITAL

### FACEBOOK BUYS OCULUS VR.

Mark Zuckerberg is liking a lot of deals. Right after spending \$19 billion on WhatsApp, the Facebook founder is splashing out \$2 billion – and possibly more – in cash and stock on a virtual reality newcomer, Oculus VR. It's arguably a riskier punt than the messaging app. Both deals also suggest a buy, not build, approach.

Oculus, which got going thanks to a Kickstarter campaign less than two years ago, is a hot property, attracting rave reviews for its Rift headset. For some observers the company, led by co-founder Brendan Iribe, has done for virtual reality what Apple's iPhone did for smartphones: combine available technologies into a package that's both user-friendly and a revelation for those that try it.



Software designer Julian Kantor of Jonathan Feng as he uses the Oculus Rift virtual reality headset in Los Angeles, California, June 12, 2013. REUTERS/Gus Ruelas

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That's how Zuckerberg sees it, and not just for the obvious gaming potential – Oculus' initial market – but ultimately for social interactions. He suggests the headsets and software could become the next big computing platform.

Facebook's \$165 billion market value and dual-class share structure allow Zuckerberg to spend the company's stock on little more than a hunch. Nevertheless, Oculus still needs to realize a big slug of its potential to justify the price tag – especially as it won't, as the Facebook finance chief put it during a conference call, have a material impact on its new parent's revenue for now.

Zuckerberg, who still essentially calls all the shots at Facebook, is displaying a willingness to pay what look like high prices to snap up what might be the next big thing. That may be pragmatic, and he argues the \$1 billion he paid for picture-sharing app Instagram in 2012 has worked out well. But that strategy could end up getting pricey – especially as it's unclear what criteria Zuckerberg is using to measure success.

As it is, Andreessen Horowitz and other venture capital firms are entitled to rub their hands over the handsome turn they are making on the \$75 million of "B" round investment they served up to Oculus only in December. But maybe they should watch their backs. Next time, Zuckerberg may not even wait for endorsement from venture capitalists before swallowing the next hot early-stage tech startup. Just like them, except on a larger scale, he needs to spread his bets to ensure he has enough winners in his portfolio.

*Richard Beales, March 26, 2014*

## COATTAILS EQUITY

### INVESTORS' WILLINGNESS TO ACCEPT SECOND-CLASS STOCK AND GOVERNANCE STORES UP PROBLEMS FOR THE FUTURE.

Crazy valuations – even after a recent dip – are not the only signal that parts of the U.S. stock market, particularly internet companies, are in bubble territory. The willingness of investors in hot initial public offerings to accept second-class stock and governance that favors insiders suggests an imbalance between providers of capital and its consumers. Add head-scratching market caps based on contorted metrics, and this risks storing up trouble when the inevitable headwinds arrive.

The best description of the stock being hawked in this way is “coattails equity.” It offers little beyond a chance to tag along with entrepreneurs from Wall Street, Silicon Valley and China. Buyers of shares in IPOs such as those of Box, GrubHub, Moelis & Co, Virtu Financial and Weibo – and probably \$100 billion-plus giant Alibaba – must give up rights that have traditionally accompanied the ownership of common shares, like a representative voice in corporate decisions.

It's a big shift in the paradigm of stock ownership, and it could make the next downturn trickier in some ways even than the tech collapse at the turn of the millennium. The most obvious governance problem is a multiplicity of classes of shares. Weibo, the Twitter-like service of Chinese internet conglomerate Sina, is selling Class A shares in New York. These take a back seat to the B shares that Sina will continue to own and which carry triple the votes.

That's nothing compared to Box, the company Aaron Levie founded in his dorm room. Box sells a service with not very obvious barriers to entry that allows customers to store their digital files on the internet. Box's Class A shares have just one-tenth of the votes that attach to its Class B shares, which should allow Levie and his backers to call the shots long after their economic interests shrink.

Such structures are not uncommon in tech land. Google just last week created a third class of shares to further consolidate the control of its founders. And Facebook went public in 2012 with two classes that entrench the influence of founder Mark Zuckerberg. But the idea seems to be migrating further and further from Greater San Francisco. Two savvy practitioners of the dark arts of finance are taking the practice to new lows. Ken Moelis' eponymous investment bank sports two classes of stock, with the B shares carrying a supersized 10 votes each. Even more noteworthy, these

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super-voters will be collected in an entity which will be 97 percent controlled by the founder. Thanks to the control arrangements, the listed company won't need to ensure a majority of the board is independent, nor does it have to put independent directors on its compensation and governance committees.

Virtu Financial's IPO takes it up another notch with four classes of stock. As a result of the recent brouhaha over high-frequency trading sparked by Michael Lewis's book "Flash Boys," the offering has been delayed, according to news reports. When it does come, though, founder Vincent Viola's holdings of Class D shares, with 10 times the votes of new investors' stock, will allow him to wield control.

According to the prospectus, that includes "the election of our board of directors, the adoption of amendments to our certificate of incorporation and by-laws and the approval of any merger or sale of substantially all of our assets." All this complexity in corporate structure comes despite Virtu's auditors finding "a material weakness in our internal controls over financial reporting" for 2013.

Lousy governance is not, however, confined to companies with dual or even quadruple stock structures. Take GrubHub, the restaurant delivery service website whose share price popped 31 percent on its first day of trading last week. The company's certificate of incorporation includes a litany of by-laws designed to insulate executives against pesky shareholders, including a poison pill to repel any unwanted takeover, limits on the abilities of stockholders to call special meetings, and an old-school staggered board of directors.

The structure means shareholders only get to elect a third of directors every year, which impedes the ability of unhappy investors to wage a proxy fight to overhaul a poorly performing board. Last year, just 11 percent of companies in the S&P 500 Index had this kind of arrangement, down from more than 52 percent in 2005, according to law firm Fried Frank.

In effect, GrubHub and its ilk are taking investors back in time, winding back rights that activists and shareholder advocates have worked for decades to establish. In many cases the businesses concerned are innovative and disruptive. But when it comes to shareholder democracy, they're retrograde. For now, investors don't seem to mind. They're hungry for growth, and that's what Box, Weibo, Moelis and others offer. But when these businesses and their leaders mature or, God forbid, fail to capitalize on their founders' visions, shareholders will regret there isn't much they can do about it.

*Rob Cox, additional reporting by Stephanie Rogan, April 8, 2014*

## EXCESS

Rising valuations and investors' hunger for growth quickly created heady markets for bankers, venture capitalists and investors. As always, valuations, jargon, unusual metrics and trends in corporate governance went too far. Madness for a virtual currency few understand takes off.

### ALL IN ONE BOX

**THE ONLINE STORAGE COMPANY'S UPCOMING IPO WAS EMBLEMATIC IN ITS EXCESS.**

Silicon Valley has been delivering new stock issues at a breakneck pace. Nearly all of them come packaged with some mix of rapid growth, multiple share classes, oddball metrics and other curiosities. On March 24, an initial public offering arrived with all of them in one Box.

A cloud computing company trying to capitalize on the shift from PCs to mobile devices, Box fits snugly into the hype. It raised \$100 million late last year for a reported \$2 billion valuation. Not only is it losing money, but at a spectacular rate. Box reported a net loss of \$169 million in the year ended Jan. 31 on revenue of just \$124 million.

The top line is growing pretty fast, more than doubling in a year, reflecting the hot market for remote data storage. But the cost of acquiring new customers is rising almost as quickly. Sales and marketing expenses increased 73 percent to \$171 million.

That helps explain why Box doesn't expect to be profitable any time soon. Amazon, IBM, Microsoft and a bevy of other startups offer competitive alternatives. The burgeoning industry revolves around selling more space for less. Rivals that provide other cloud services dangle storage as a loss leader. Google recently slashed its 100-gigabyte plan from \$5 to \$2 a month.

Box also isn't differentiating itself structurally. It will have two classes of shares, one with super-voting rights, similar to Facebook and others. Like so many other novel financial measurements that are peculiar to Silicon Valley, Box trots out "billings," a non-GAAP metric that accounts for deferred revenue. The company also boasts a "retention rate" that exceeds 100 percent. Any firm that can keep more than all its customers requires extra investment scrutiny.

And no stock sale is complete these days without a young, quirky and charismatic founder who started the firm in his dorm room. Box ticks that one, too.

Known for his red sneakers, Aaron Levie, who according to the filing is 29, is extolled by Silicon Valley denizens. He, or someone with access to his Twitter account, was spotted adding a "favorite" tag to certain IPO-related tweets after the prospectus came out. That recalls the mildly roguish behavior of Groupon founder Andrew Mason, whose quiet-period missive was questioned by securities regulators. As far as tech IPOs go, Box really has it all.

*Jeffrey Goldfarb, March 25, 2014*

## ONE STICK PONIES

**EVERY TREND PRODUCES SILLY JARGON. UNICORNS RUN RAMPANT THROUGH SILICON VALLEY.**

There's a new stampede in technology's fantasyland: Unicorns. The single-horned stallion has made the leap from legend to run free through modern-day Silicon Valley, New York, London and the plains of central Israel as a term to describe the most successful startups. In a different and unintended sense, the trope couldn't be more apt.

The mythical beast emerged in a TechCrunch post last November when Aileen Lee, founder of early-stage investor Cowboy Ventures, applied the word to venture-backed U.S. software firms that achieve a \$1 billion valuation. In the three years prior, the word "unicorn" turns up fewer than 10 times in a tech context, according to a search of the LexisNexis database. Lee alone used it 54 times in her article, and it has stuck.



*A baseball fan wearing a unicorn mask takes a picture of himself in San Diego, California, June 2, 2013. REUTERS/Mike Blake*

## BREAKINGVIEWS

Noam Bardin, chief executive of Waze, which Google bought last year for about \$1 billion, touted his mapping app's unicorn credentials. The boss of Nutanix did the same after a recent \$101 million fundraising round. Researcher CB Insights followed up with its own analysis of "trends among the Unicorn VCs." A Feb. 21 Silicon Valley Business Journal headline labeled Sequoia Capital a "unicorn factory."

Technological Darwinism is already spawning mutations. Scott Sandell, a partner at venture capital firm New Enterprise Associates, described one of the companies he backed, CloudFlare, as a potential "super unicorn" worth \$100 billion. And perhaps reflecting the creature's heraldic presence in the UK, former rugby star Alastair Lukies fancies his British mobile payments firm Monitise a super unicorn in the making.

The fantastical connotations are appropriate. Shares of Coupons.com, which has been losing money for 16 years, nearly doubled in their debut on March 7, giving the company a \$2.2 billion valuation. The same day, \$11 billion cyber-attack defender FireEye, another unprofitable member of the herd, raised \$460 million in a share sale just six months after its initial public offering. According to Standard & Poor's, application software companies in the S&P 500 Index are collectively priced at 80 times earnings.

Just as the New Economy gave way to the Mobile Economy and "clicks and mortar" begat the "internet of things," so "eyeballs" have become "daily uniques." Yet no piece of jargon has felt so right for the industry. Unicorns are just like the future cashflow streams on which so many technology valuations are built. They exist only in the imagination.

*Jeffrey Goldfarb, March 10, 2014*

## KING OF PU

**KING DIGITAL MAKES UP METRICS AND PICKS A VALUATION FROM AIR.**

The maker of the popular game “Candy Crush Saga” has picked \$7.6 billion out of the thin air for its initial public offering. King Digital Entertainment uses creative metrics to justify its whopping valuation. But there’s no way to calculate what an enterprise is worth when its profit can skyrocket 70-fold one year and could collapse the next. Rival Zynga’s IPO flub serves as an apposite warning.

King’s performance in 2013 was certainly impressive. Revenue climbed more than 11-fold, which means the company enjoyed astounding operating leverage. Moreover, the firm throws off boatloads of cash – \$580 million from operations last year. Its backers have only had to put in \$9 million of capital to date. No wonder they now fancy taking the company public.



*A mascot dressed as a character from the mobile game “Candy Crush Saga” walks the floor of the New York Stock Exchange during the IPO of Mobile game maker King Digital Entertainment Plc, March 26, 2014. REUTERS/Brendan McDermid*

## BREAKINGVIEWS

The trouble is, the methods they're using to value the company aren't particularly helpful. Metrics like monthly gross average bookings per paying user (MGABPPU) and gross average booking per user (GABPU) shed little if any light for prospective investors.

Social gaming as a business is driven by hit products. Zynga's travails show how hard it is to stay on top. Its shares have lost about half their value since their opening-day high in 2011 as the popularity of games like "FarmVille" faded. Heavy spending to buy rivals hasn't worked either. Zynga spent \$200 million on OMGPop and closed the business about a year later.

Sure, King looks cheaper – at the top of the range it would be worth about four times last year's revenue, compared with five times for Zynga. But such comparisons may not be solid. "Candy Crush Saga" generated close to 80 percent of King's bookings in the fourth quarter. There are already signs its peak may have passed. Instead of its customary explosive growth, fourth-quarter revenue was 3 percent lower than the third quarter. King needs a new hit, if not several, soon.

The company makes much of its "unique, repeatable, scalable" system of developing and distributing new games. There's some truth to that – the company has been cash flow positive for nine years. So it can probably trundle along for a while even if it can't develop a new hit when its current one fades. That's hardly a basis for such a lofty IPO valuation.

*Robert Cyran, March 12, 2014*

## TAKEOUT MULTIPLES

**THIS TECH BUBBLE WAS INTERNATIONAL. DANISH-FOUNDED JUST EAT JOINED SWEDEN-FOUNDED KING DIGITAL IN SEEKING A LONDON LISTING.**

Buyers have baked fat growth hopes into Just Eat's initial public offering valuation. A hot London flotation gives the online takeaway firm a market value of 1.5 billion pounds (\$2.4 billion). That's an unpalatable 15 times trailing revenue. Building a strong position in this industry, as Just Eat has, is harder than it looks. And the trajectory in its biggest markets is good. But it looks like investors' hunger for growth has led them to over-order.

Historic numbers, of course, count for little in valuing high-growth stocks. But future-gazing is also daunting. Just Eat's adjusted EBITDA last year was 14.1 million pounds. Jump forward a bit, and suppose Just Eat merits a premium to Rightmove and ASOS, two British peers that are proven online successes. They fetch 17 and 28 times 2016 EBITDA. Just Eat has to deliver three straight years of 50 percent annual EBITDA growth to get to a richer 30 times multiple.

That's not impossible. The hopeful template is tech-savvy Denmark, Just Eat's birthplace. Here half of all food deliveries are already ordered online, and EBITDA margins are over 40 percent. The rise of smartphones and tablets should do wonders for online takeaway elsewhere.

Just Eat has spent years building market-leading positions by recruiting restaurants and installing dedicated order machines, while advertising heavily to consumers. That creates real barriers to entry. But there could be hiccups. Tech investors, a sophisticated bunch, may be overestimating the speed with which suburban pizza-guzzlers will change their habits. The market could prove more contestable than it looks. Just Eat's technology must be highly resilient: imagine the ill-feeling if systems were overwhelmed during the soccer World Cup. Some ambitious restaurateurs might prefer building their own websites to paying out a tenth of orders in commission.

All this suggests the Just Eat share price is too hot. But investors across the markets are on a restricted diet of low returns and high valuations. Nor are there many ways in Europe to bet on the digital revolution. Hence the huge appetite for this and other recent e-commerce debuts such as AO World and Boohoo. The risk, however, is that indigestion strikes.

*Quentin Webb, April 13, 2013*

## BREAKINGVIEWS



## DREAM WEAVERS

AN IPO BOOM ALWAYS BRINGS OUT FANCIFUL COMPANIES.

Wall Street and Silicon Valley have spawned a love child called Fantex. The San Francisco-based marketplace for shares linked to the actual earnings of professional athletes disclosed its first tracking stock initial public offering on Oct. 17. The proposition sounds like a sports junkie's dream. In reality, it is fraught with risks. Fans should lace up their sneakers and run away.

Americans shell out an estimated \$15 billion a year to play at being team owners, according to a fantasy sports trade group. Meanwhile, investors value the next 12 months of estimated earnings at \$5 billion Manchester United at a whopping multiple of 41 times. So there's a market ripe for the picking.



*Juventus' Kwadwo Asamoah jumps for the ball with Udinese's Dusan Basta during a match in Udine, Italy, April 14, 2014. REUTERS/Alessandro Garofalo*

A logical extension is to give obsessive sports followers a financial stake in the players they already track. Fantex Holdings is starting with Arian Foster, a top running back in the U.S. National Football League, with plans to use \$10 million of IPO proceeds to acquire 20 percent of his future pay – including his salary, any endorsement income and what he makes after retiring from football.

It shouldn't take long for any stat-crunching sports nerd to spot the pitfalls. Athletic careers can be cut short. Though Foster has been in the league for five years, his performance is slipping and he has confronted multiple injuries. Those playing at his position last on average less than three years. Even so, Fantex forecasts a big jump in Foster's brand income.

Financial woes also plague pro athletes. A few years ago, Sports Illustrated estimated that four out of five NFL players had serious money problems within two years of their playing days ending. It's not clear where Foster's tracking stock owners would fall in the pecking order if he goes on a Ferrari-buying binge. Personal scandals are a giant risk in the sports world, the slug of upfront money may have unintended consequences on player behavior and Fantex enumerates plenty of conflicts of interest.

Buyers of the tracking stock would have no say, as Fantex retains voting power. Though music royalties have been successfully securitized, most famously some of David Bowie's, previous efforts to make a market out of athletes have flopped. Hollywood lobbying, meanwhile, prevented trading in box office futures. The leagues, unions or other stakeholders might deal a similar blow to Fantex. The startup looks like fantasy sports re-engineered as a fantasy investment.

*Jeffrey Goldfarb, Oct. 17, 2013*

## BIG SWINGING VALUATIONS

**TO CLAIM BRAGGING RIGHTS, PRIVATE COMPANIES GOOSED THEIR VALUES HIGHER BY SELLING SMALL CHUNKS OF THEMSELVES AT INFLATED PRICES.**

Big tech valuations these days come in small packages. Dropbox, the cloud storage firm, is now worth \$10 billion and lodging marketplace Airbnb soon could be, too, thanks to recent funding rounds. Both cases would involve just a tiny slug of equity. A flurry of such later-stage, private deals seems to be less about raising cash and more about egos, attention and anchoring future initial public offerings.

Each week seems to bring another \$1 billion valuation. This month alone, Hortonworks, TangoME, Actifio, Eventbrite and Cloudera joined the crowd. Only some of them need money to expand. All of them need to keep up with rivals on Silicon Valley's mental map. Ten figures convey a useful and potentially self-fulfilling prophecy that a firm matters and can be successful.

For one thing, customers prefer to buy services and software from a startup perceived to have staying power. Valuation hype also creates momentum for companies to embrace new tech standards and to woo the best engineers. These hackers want a shot at getting rich, but also are attracted by working for a celebrated founder at a growing company with products in high demand. According to Thomson Reuters, private internet and software firms raised \$18 billion last year, the most since 2001. Flush with cash, the hiring rush is decidedly on.

There are baser motives, too. Tech-land runs in large part on swagger. Valuations provide a scoreboard for everyone to watch. If it takes \$1 billion to stay in the conversation, then \$10 billion rises above the din.

Greed is a motive that is never far away, either. Late-stage venture capital funds have generated 12 percent annual returns on average over 10 years, according to Cambridge Associates, about 50 percent better than early-stage investments. That has tempted the likes of buyout firm TPG, hedge fund Tiger Global and asset manager T. Rowe Price. For tech firms approaching an IPO, there is an unusual abundance of capital.

The hottest of the bunch, including Dropbox, Airbnb and Palantir Technologies, can squeeze valuations higher still by doling out crumbs. Each of the three sold, or wants to sell, less than a 5 percent stake. The extrapolated valuation rarely will reflect any fundamental analysis or traditional metrics. For founders and early backers, though, it still provides a pretty useful measure.

*Robert Cyran, March 25, 2014*



*Drew Houston, CEO and Co-Founder of Dropbox, speaks on stage during a fireside chat session at TechCrunch Disrupt SF 2013 in San Francisco, California, Sept. 9, 2013. REUTERS/Stephen Lam*

## THE APPLE PIE

**THE SPECULATIVE FEVER REMAINED CONCENTRATED AMONG SMALLER FIRMS. TECH GIANTS SUCH AS APPLE, ORACLE, INTEL AND MICROSOFT MISSED THE PARTY.**

Mr Market has slashed Apple's market value by \$260 billion in six months. Meanwhile, the combined worth of a wide group of smartphone and tablet rivals has added less than half that. If investors think Apple is fading, the competing Android complex could be worth far more – to someone.

The 40 percent slide in the iPhone and iPad maker's shares since their high last September – cutting Apple's market capitalization to a mere \$400 billion or so – reflects a range of factors including concerns about the company's product pipeline and how it can put its \$137 billion cash pile to better use. A big issue, though, is the threat as rivals like Samsung Electronics catch up with Apple's technology, many using Google's Android operating system.

Yet over the same period as Apple's decline these two big competitors (though their businesses go far beyond mobile devices) have seen their market values rise by only about \$35 billion each. A broader assembly that might benefit if Apple loses out includes at least another 15 companies like BlackBerry, Nokia, Amazon, Sony, Dell, cellphone groups Verizon Communications and Sprint Nextel – which stand to make more money on Android devices than on Apple's – and even Web names like Facebook and Yahoo.

There are other reasons some of these firms have increased in value since September – Michael Dell's planned buyout of the company he founded, for instance. But take all their gains, ignore the share price decreases at Microsoft, chipmaker Intel and HTC, a Taiwanese handset producer, and they still add up to only around \$120 billion of new market value.

One way of interpreting this is that some \$140 billion has gone missing from the present value of future smartphone and tablet profits. Of course, investors aren't always rational, and Apple now looks undervalued. Moreover the Android complex can't easily be defined, and less obvious constituents may have gained in value. Then again, Apple's wide profit margins are no secret. Perhaps the message is that companies simply won't make as much as investors thought – because competition will erode profitability. In that case, the missing billions have gone from Mr Market to Joe Consumer.

*Richard Beales, March 7, 2013*

## SHERIFF WANTED

THE COLLAPSE OF A VIRTUAL CURRENCY EXCHANGE CREATED REAL LIFE PROBLEMS.

Imagine that the leading stockbroker in a country closed its doors without giving any reason. Its clients would be in a panic and customers of rival firms would be very nervous. That is exactly what has happened to bitcoin, the leading pseudo-currency.

The website of the Mt. Gox Bitcoin exchange in Tokyo disappeared from cyberspace on Feb. 25, with no explanation provided. The exchange had previously admitted to problems with "transaction malleability," a Bitcoin-world euphemism for susceptibility to hacking.



*Kolin Burges, a self-styled cryptocurrency trader and former software engineer from London, holds up a placard to protest against Mt. Gox, in front of the building where the digital marketplace operator was formerly housed in Tokyo, Feb. 26, 2014. REUTERS/Toru Hana*

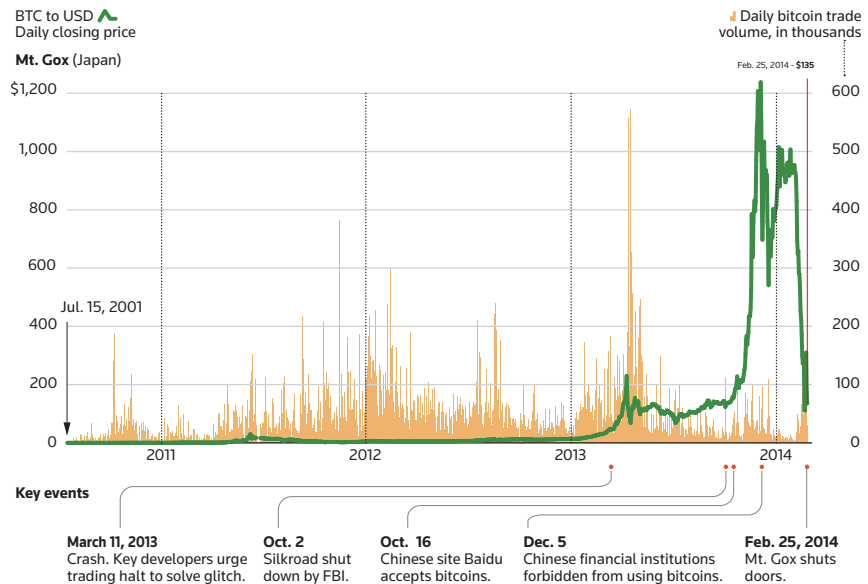
## BREAKINGVIEWS

Internet chat was intense. What looks like an internal memo from the company was circulating the web, stating that there had been thefts from accounts that Mt. Gox customers had assumed were perfectly safe. It is not clear whether the document is genuine. The price of bitcoin on other exchanges dropped 8 percent, down 55 percent from last November's all-time high, according to bitcoinaverage.com.

If Mt. Gox were an officially licensed broker, the government would be the first port of call. The relevant authorities would investigate and might even make good on some losses under a taxpayer- or industry-funded compensation scheme. Of course, if Mt. Gox had to meet government-mandated security standards, it might not have been allowed to operate without correcting a software vulnerability identified as far back as 2011.

## The rise and fall of Mt. Gox

Tokyo-based Mt. Gox was once the busiest exchange for trading Bitcoin cryptocurrency



Source: bitcoincharts

Reuters graphic/C. Inton 11/04/2014

But bitcoin's central appeal is that it is free from government interference. That is not quite true, since bitcoin cannot make illegal activity legal. Bitcoin entrepreneur Charlie Shrem was an industry leader until his January indictment for attempting to use the techno-currency to launder money.

Still, the distance from the official world is great enough that Mt. Gox customers are almost totally on their own. The purported internal memo suggests that other bitcoin fans might help out, so as to salvage the would-be financial asset's reputation. That's a thin reed to cling to.

The expensive regulation and political backstops of conventional money are far from foolproof – look at the recently released Federal Reserve minutes from 2008 to see dysfunction in action. But the system is better than any known alternative, including one based on sophisticated software algorithms.

*Edward Hadas, Feb. 25, 2014*



## **FBITCOIN**

### **THE SURGING POPULARITY OF BITCOIN AND FACEBOOK – AND THE POSSIBLE EPHEMERAL NATURE OF IT – CREATES SIMILARITIES.**

With its extraordinary \$19 billion swoop on WhatsApp last week, Facebook proved its stock is not so different from the crypto-currency of the moment, bitcoin. They can both be used for certain, specific purposes. Neither is backed by a government. Both depend on vast networks of individuals. And their worth reflects demand, which is based on murky fundamentals. The trick: monetize them while they still have value.

Unlike U.S. dollars, neither Facebook shares nor bitcoins are an official form of legal tender. But some people are willing to accept them as payment. A prominent example is WhatsApp's founders and financial backers, who happily exchanged their stakes in the text-messaging startup for Facebook stock worth \$15 billion. Yet Mark Zuckerberg, Facebook's boss, would have struggled to purchase a coffee with his shares at the German bakery where he and WhatsApp Chief Executive Jan Koum appear to have hatched the deal.

Similarly, bitcoin enjoys no universal acceptance. True, at Bandana's Bar-B-Q in Coralville, Iowa the currency will buy a slab of ribs. But it will not get a Big Mac at any of McDonald's 14,000 U.S. outlets. Bitcoin is not money as most people understand it. There is no Department of the Treasury controlling its issuance or value. It is backed only by mathematics, and its total stock is limited at 21 million virtual coins.

In that sense, bitcoin is only as useful as the network of people and businesses that are willing to accept it in exchange for goods and services. It goes without saying that a similar "network effect" underpins Facebook's entire existence.

There is one big difference. Unlike bitcoin, Facebook's share count can expand. Last week, it issued 182 million new shares and 46 million restricted stock units to WhatsApp's owners, adding some 9 percent to the total of shares outstanding. Such share-printing could undermine the share's value, just as governments debase their currencies by printing too much money. Of course, Facebook does something – it's not merely a putative store of value like bitcoin. So it can grow into its larger equity base.

The risk for Facebook and bitcoin, respectively, is that someone creates a better social network or decentralized digital currency. History suggests both will happen – innovators almost never retain their dominant positions ad infinitum. Indeed, there are signs this may already be occurring.



*A man widely believed to be bitcoin currency founder Satoshi Nakamoto, also known as Dorian Nakamoto, is surrounded by reporters as he leaves his home in Temple City, California, March 6, 2014. REUTERS/David McNew*

So far, Facebook shareholders are happy with their dilution. The stock price rose on the purchase of an upstart with no financial track record on which to judge its future success within Facebook. However, the acquisition makes Zuckerberg look fearful. Although Facebook's business is robust today, it seems that it must make big, near-blind wagers on the next big thing, lest it lose its edge.

The fundamental value of bitcoin is incredibly tricky to pin down. According to the MIT Technology Review, bitcoin was four times more volatile in 2013 than the average stock, and the dollar-bitcoin exchange rate was 10 times more volatile than the dollar rate with major currencies like the euro or yen.

What's not hard to recognize: bitcoin's worth has nearly halved since the beginning of December. Whatever the similarities, or differences, between the pseudo-currencies of Facebook shares and bitcoins are, their values are clearly not fixed. Next to selling them, the wisest course of action would be to capitalize on their value. Zuckerberg just did that with Facebook stock in the WhatsApp deal.

*Rob Cox, Feb. 24, 2014*

## HUBRIS VALLEY

**It takes ambition, confidence, drive, intellect, collaboration, and a disregard for convention to create a successful technology firm. Taken too far, these same trends create Silicon Valley's dark side: a disregard for privacy, regulation and copyright; cronyism; greed; hunger for power; and hype. Often enough, hubris and greatness walk hand in hand in Silicon Valley. Whether an endeavor is one or the other is only obvious in hindsight.**

## ROBBERBARONS.COM

**SILICON VALLEY'S UNDESERVED MORAL EXCEPTIONALISM.**

Silicon Valley likes to think of itself as morally exceptional. When Google went public in 2004, the internet search company's wunderkind founders, Larry Page and Sergey Brin, penned a letter to prospective shareholders that has become the internet industry's version of the Magna Carta. In it, they pledged that Google was "not a conventional company" but one focused on "making the world a better place." Their manifesto followed a venerable tradition in Silicon Valley (meaning the swath of technology and internet companies based in the cities and towns between San Francisco and San Jose). A decade earlier Apple co-founder Steve Jobs insisted that "being the richest man in the cemetery doesn't matter to me ... Going to bed at night saying we've done something wonderful ... that's what matters to me."

The newest inductees to the Silicon Valley pantheon have continued to think very well of themselves and their motives. Mark Pincus, who introduced Farmville and Words With Friends to create pleasant online distractions, embraced comparable sentiments when taking Zynga public last year: "Games should do good. We want to help the world while doing our day jobs." In the prospectus for what could be a record \$10 billion initial public offering, Facebook founder Mark Zuckerberg promises that a similar philosophy will guide the social network. "Simply put: we don't build services to make money; we make money to build better services. And we think this is a good way to build something. These days I think more and more people want to use services from companies that believe in something beyond simply maximizing profits."

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After the financial crisis and the great Wall Street swindles of the past few years, this all sounds refreshing. Toiling away in places with bucolic names like Sunnyvale and Mountain View, entrepreneurs create products intended to improve mankind and make the world a better place. The narrative offers an antidote to tales of bailed-out bankers collecting undeserved bonuses and job-crushing private-equity barons paying lower tax rates than their secretaries. But wishing to hold the moral high ground does not make it so – whether in industry, politics, or religion.

Though Silicon Valley's newest billionaires may anoint themselves the saints of American capitalism, they're beginning to resemble something else entirely: robber barons. Behind the hoodies and flip-flops lurk businesspeople as rapacious as the black-suited and top-hatted industrialists of the late 19th century. Like their predecessors in railroads, steel, banking, and oil a century ago, Silicon Valley's new entrepreneurs



*Interviewer James Bennet points to an audience member as Facebook Chief Executive Mark Zuckerberg sits for questions in an onstage interview for the Atlantic Magazine in Washington, Sept. 18, 2013. REUTERS/Jonathan Ernst*

are harnessing technology to make the world more efficient. But along the way, that process is bringing great economic and labor dislocation, as well as an unequal share of the spoils. Just last week, the Justice Department warned Apple that it planned to sue the company along with several U.S. publishers for colluding to raise the price of electronic books – monopolistic behavior that would have made John Rockefeller proud.

“During the second industrial revolution, the economy went through major transitions, led by 50 individuals who became incredibly wealthy, leading to huge unemployment,” says Joe Lonsdale, a 2003 graduate of the university founded by one of those tycoons, Leland Stanford. Indeed, Lonsdale is hoping to make his own fortune by “reinventing the infrastructure that powers global wealth” with his latest startup, Addepar. “Instead of the robber barons, today it is the technologists who are doing the destroying.”

A few Silicon Valley denizens are beginning to recognize the risks inherent in combining moralistic hubris with the internet’s powers of creative destruction. At a closed-door meeting of high-tech honchos in Davos last month, Cisco Systems Chairman John Chambers and Glenn Hutchins, founder of the leading investment firm Silver Lake, warned of a potential backlash. Not unlike the torrent of bad publicity surrounding Wall Street after the financial meltdown, a flood of bad press or even new regulation could follow from continued technology-driven job losses or a major breakdown of cybersecurity.

The truth is, it’s increasingly tough for the establishment of Silicon Valley to argue that their business is any less evil, or does any more good, than the bulk of Corporate America. Underneath the haughty language of moral superiority lies the same profit motive that drives all businesses – and a ruthlessness rivaling history’s greatest industrial bullies.

### **EXPLOITATIVE MANUFACTURING**

Take Apple’s manufacturing practices in China. By systematically outsourcing the assembly of iPhones and other gadgets to contract manufacturers like Foxconn, Apple has shaved its overall cost of production and plumped profit margins for shareholders. That’s neither unique nor necessarily evil. It’s a practice regularly adopted by toymakers, chemical producers, and food packagers, not to mention most of the rest of the consumer-electronics industry. But establishing an arm’s-

## **BREAKINGVIEWS**

length commercial relationship does not absolve a company from moral responsibility for the way it's chosen partners treat workers.

Nike taught American business leaders this lesson more than a decade ago when its use of far-flung suppliers employing children in sweatshops became a public-relations debacle. Although Apple has a code of conduct for suppliers, audits them, and has published summaries of the results for several years, the company resisted more direct scrutiny until recently. Labor issues at Foxconn's sprawling 230,000-worker complex in Shenzhen have attracted bad press for some time. It was not until that negative publicity spread from the relative obscurity of Mike Daisey's off-Broadway monologue, "The Agony and Ecstasy of Steve Jobs," to the front page of The New York Times and then to broadcast networks that Apple took more meaningful action, allowing the Fair Labor Association to conduct special audits of its suppliers' factories in China.



Former workers' permits are seen at a personnel department at the Foxconn factory in the township of Longhua in Shenzhen, China, Dec. 18, 2012. REUTERS/Tyrone Siu



## INDIFFERENCE TO COPYRIGHT

Corporate shortcuts are not simply about reducing costs. They can, for instance, come in the form of looking the other way, something that Google and others are regularly accused of doing when it comes to respecting copyright law, especially as it relates to words, music, and video that tech companies don't produce themselves. This tendency inspired two controversial anti-piracy bills, the Stop Online Piracy Act (SOPA) in the House and the Protect Intellectual Property Act (PIPA) in the Senate.

Near-passage of the legislation in January sent the Valley into a tizzy. As drafted, the bills would have forced internet companies to block access to foreign sites that flout U.S. copyright laws. Opponents argued the laws would damage the freedom and openness of the internet.

While both sides of the debate make legitimate points, it was remarkable how quickly legislators caved in to the website-blackout campaign mounted by Silicon Valley. Christopher Dodd, the former Connecticut senator who now chairs the Motion Picture Association of America, which supported the bills, calls it the "greatest backlash I've ever seen."

Tellingly, big profit-driven sites like Google expressed sympathy but didn't go dark - while the notably nonprofit Wikipedia, which had no revenues to lose, did switch off in protest.

## DISREGARD FOR PRIVACY

A bigger battle remains to be fought on the privacy front, where Silicon Valley's misdemeanors go beyond the fairly passive indifference that characterizes its approach to copyright.

Pushing the boundaries of what is generally considered acceptable, even decent, when it comes to exploiting personal information is a daily sport in the online world. That's because a tweak here or there to the privacy settings of a social network or a tiny change to the code on a mobile application can mean a world of difference in the value of information an advertiser - or, in extremis, a government institution - can access about a usually unaware user.

Perhaps swayed by Silicon Valley's altruistic spin, or slow to catch up with its rapid growth, Washington has, up to now, largely left the industry to

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regulate itself on privacy. That's clearly not working. Hardly a day passes without some new revelation of an internet or mobile company stepping a byte too far into the private business of its customers.

Among the more shocking of recent infractions, Google was found to have altered its computer code to trick the Safari web browser on Apple's iPhones into overriding the privacy settings of millions of users. Once contacted by The Wall Street Journal about it, Google disabled the code.

The continual testing of limits is perhaps the dark side of the hacking culture extolled by leaders like Zuckerberg, who are steeped in the world of engineering. "There is a real sense of mission, with hackathons and staying up all night to solve this or that problem," says Garth Saloner, the dean of Stanford's business school. "It may seem slightly eccentric, but it's tremendous fun for all involved. The only rule is there are no rules."



*A member of a protest group, Code Pink, protests against U.S. President Barack Obama and the NSA before his arrival at the Department of Justice in Washington, Jan. 17, 2014. REUTERS/Larry Downing*



While Saloner argues that most of the internet's top operators, like Facebook, strike a healthy balance between "adult supervision" and code writers "inventing something totally outside the lines," Silicon Valley's big kahunas aren't necessarily the worst violators of privacy norms. Take last month's kerfuffle around Path.com, a social-media application founded by a former Facebook executive, and backed by Shawn Fanning, whose Napster music file-sharing service was the godfather of online copyright infringement.

Path, which dubs itself a "smart journal that helps you share life with the ones you love," was uploading users' entire contact databases to its servers without permission. While Path amended the practice when outed by a savvy blogger, it quickly became clear it was not the only application swiping such personal data.

Individually, Silicon Valley's privacy infractions can sound like minor peccadilloes. Some might have even been the result of perfectly legitimate oversights on the part of engineers so engrossed in their code writing that they're unaware of the social implications of their work. Or it may be a consequence of a corporate culture that, to use a Facebook motto, preaches "Move Fast. Break Things."

Either way, taken together they suggest that too many shortcuts are being taken to boost the value and profitability of the personal information being trafficked – the primary business line of many internet companies.

### **CRONY CAPITALISM**

Washington is beginning to understand that Silicon Valley cannot be trusted fully without supervision. On Feb. 23, the Obama administration introduced a Consumer Privacy Bill of Rights and vowed to persuade Congress to grant specific powers to the Federal Trade Commission and state attorneys general to enforce it. While Silicon Valley is presently adopting a cooperative approach to the White House initiative, the devil may come as the legislative details are hammered out.

It's perhaps telling that, two days after the president unveiled his privacy proposal, Google named Susan Molinari, the combative former congresswoman from Staten Island, to head its D.C. office. There's nothing inherently malicious about companies hiring hotshot lobbyists to protect their turf and, if possible, water down new rules. It's just more "business as

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usual” than “don’t be evil,” which remains the first exhortation in Google’s corporate code of conduct.

### THE MURDOCH MODEL

One of the ways the owners and founders of Silicon Valley companies have tried to maintain their guiding ethos is by asserting an exceptional level of control over shareholders. But this, too, has its own baronial shortcomings. Following Google and Zynga, Facebook’s IPO will segregate investors into the stock-market equivalent of first and second-class citizens, with Zuckerberg’s shares carrying 10 times the voting power of the stock being sold to the public.

Many of the venture capitalists and billionaires who invested in Facebook privately will also reap enormous gains from the deal – a list that includes Zynga founder Pincus. In return, many of these early investors are giving Zuckerberg the right to vote on their behalf. As a result, Zuckerberg will wield 57 percent of Facebook’s shareholder voting power with just around a fifth of the stock. That’s the kind of poor corporate governance that one day is likely to pit the interests of the founder against other shareholders, as it has at companies with similar structures like, most notoriously, Rupert Murdoch’s News Corp.

Which isn’t to say Silicon Valley has suddenly gone to the dark side. It’s just that its leading companies, among the largest and most powerful businesses in the world, are playing by the profit-seeking rules that prevail throughout the rest of corporate America. “Dreamers still go to California and have big visions about changing the world,” says David Tisch, managing director of TechStars NYC, which links startups with investors, and whose family knows about building businesses (Loews hotels, Bulova watches, and the New York Giants). “But most people are trying to get rich like anyone else.”

The original robber barons had decent intentions when they built railroads to connect America’s emerging cities and drilled oil wells that fueled the nation’s growth, but their empires still needed to be regulated, reined in, and in some cases broken up by vigilant watchdogs. Lofty words and ideals are fine for motivating employees and even for spurring sales, but they can also serve as cover for motives that clash with the broader interests of consumers and society. We need more than fancy promises in IPO prospectuses to ensure that the rise of the Silicon Valley engineer is good for the world.

*Rob Cox, March 12, 2012*



REUTERS

## VALLEY BOYS

**AN ACTIVIST INVESTOR CALLS OUT THE CONFLICTS OF INTEREST ENDEMIC IN THE VALLEY.**

Carl Icahn is targeting both eBay and the clubby nature of Silicon Valley. The activist investor's latest rant takes aim at board conflicts at the online auctioneer as he agitates for a spinoff of its PayPal business. But Icahn is taking on a culture bigger than just eBay's.

He notes that eBay director Marc Andreessen's venture capital firm has invested in five competitors of the company. More unsettling, at least on their face, are profitable investments Andreessen Horowitz made in two businesses that eBay sold. It was, for example, among the buyers that paid \$2.75 billion for Skype in 2009, selling it to Microsoft for \$8.5 billion less than two years later.



*Billionaire activist-investor Carl Icahn gives an interview on FOX Business Network's Neil Cavuto show in New York, Feb. 11, 2014. REUTERS/Brendan McDermid*

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Yet overlaps of this kind are endemic in Silicon Valley. And Andreessen's appeal is a bit like Goldman Sachs' clout on Wall Street: the whole point of having him on side is the knowledge he derives from the multiple hats he wears.

This may be genuinely useful for a company like Facebook, where he is also a director. And since Mark Zuckerberg has voting control, board conflicts are more or less beside the point. On the other hand, Andreessen's skills and Rolodex don't seem to have helped much HP's boardroom. He was instrumental in the disastrous \$12 billion purchase of Autonomy and the hiring of the soon-fired Chief Executive Leo Apotheker.

Icahn also singles out Scott Cook, the founder of Intuit, as an eBay director with conflicts. Unlike Andreessen, who isn't up for re-election until 2015, Cook could be displaced this year if Icahn persuades shareholders to vote for his alternative candidates.

In countering Icahn's claims, eBay says it has processes in place to address conflicts. For instance, Andreessen was excluded from the board's talks on the Skype sale. Yet the best way to manage conflicts is to avoid them – Andreessen Horowitz could have passed on the Skype deal. And a conflicted director's effectiveness can diminish. Apple conceded as much when Google's Eric Schmidt left its board in 2009 as the search behemoth encroached on Apple's business.

It will surely take more than Icahn's tilt at eBay to persuade tech companies that plugged-in directors are a bad thing. There may even be an upside for him in Andreessen's continued presence at eBay. If the venture capitalist can be persuaded of the merits of offloading PayPal, having such a big-name dealmaker on eBay's board could help the activist's wish come true.

*Robert Cyran, Feb. 24, 2014*

## IMMOVABLE OBJECT

**A FIRM BACKED BY GOOGLE IGNORES THE GOVERNMENT – AND SUFFERS CONSEQUENCES.**

Silicon Valley's hubris is no match for Washington – at least when it comes to healthcare. Google-backed genomics startup 23andMe harnessed the twin philosophies that guide the new economy: technological disruption and regulatory arbitrage. But selling unproven medical tests and ignoring regulators failed to impress the Food and Drug Administration, which essentially shut down the service last week.

Regulatory arbitrage is a well-worn strategy in technology circles. Amazon grew fat by exploiting tax loopholes – unlike traditional retailers the online merchant didn't collect sales tariffs for years. Fast-growing upstarts Uber and Airbnb have set up shop in a legal gray area, mostly scoffing at local laws governing taxi services and hotels, respectively.

Disruption is similarly venerated by Silicon Valley. Technology has not only upended publishing, music, retailing and telecommunications. It also routinely destroys its luminaries, generating staggering fortunes and fame for bold, smart and lucky upstarts. There's a good reason Facebook's motto is "Move Fast. Break Things."

23andMe seemed better placed than most to accomplish this feat. It had connections – founder Anne Wojcicki is the wife of Google co-founder Sergey Brin – which helped with capital and publicity. Equally important, it had an intriguing idea whose time had seemingly come.

Users who sent in a saliva test would learn facts about their genome. These ranged from the silly, like do you flush when you drink alcohol, to the deeply serious, such as whether you have a higher risk of breast cancer. Brin, for instance, found out he has a genetic mutation strongly associated with developing Parkinson's disease.

Yet healthcare is heavily regulated because its products and services can carry life-and-death consequences. A false result in a test for breast cancer could result in an unnecessary mastectomy to a healthy woman, or miss a tumor in a sick one. 23andMe didn't bother proving to the FDA that its tests worked despite marketing the service for five years. Worse, instead of

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finishing studies demanded by the agency, the company introduced new tests and failed to communicate properly with the FDA for half a year. In response, the FDA finally forced the company to stop selling its service.

The line between confidence and hubris can sometimes be fuzzy. But 23andMe's repeated goading of the authorities may have been lethal. It's a lesson the Valley's self-described disruptors should consider carefully.

*Robert Cyran, Dec. 9, 2013*

## **BELIEVE THE HYPE**

### **ELON MUSK DABBLES WITH THE HYPERLOOP.**

Elon Musk is putting the hype – much of it believable – in Hyperloop. The Tesla, SpaceX and PayPal entrepreneur may not be the first to propose shooting people between cities at high speeds through tubes in a vacuum. His personal brand championing the idea gives it a fresh chance for success. Musk's Hyperloop may also cost a fraction of the standard transit line. That significantly enhances the appeal.

New York City had a one-car, two-stop pneumatic underground train 140 years ago. More recently, MIT's Ernst Frankel developed a similar-style train, pitched it to link Boston with New York and is now advising China on a project. He also told CNBC on Aug. 13 that Musk's plans bear some remarkable similarities to his own.

Give Musk the benefit of the doubt for now, though. He's trying to achieve with trains what he has already managed with payment systems, electric cars and solar energy – taking existing concepts that have struggled to get off the ground and devising ways to make them succeed, even if it takes years to make money. Much innovation works that way anyway, building on existing ideas. And it's the kind of ambition that internet-obsessed Silicon Valley could use more of.

Musk isn't doing it alone. He's just giving the San Francisco-to-Los Angeles rail concept a big kick-start. Tesla and SpaceX staffs are pitching in, too, before the concept is opened up for others to improve upon. That's the kind of cooperation that can yield results.



More important, perhaps, to potential financiers is that Musk reckons the price tag to connect the West Coast cities will run to \$6.8 billion, a tenth of what the conventional high-speed rail link currently under consideration may cost. Even if his estimates are optimistic, it probably will still be cheap by comparison.

That's an important element for local, state and federal governments. Taxpayers often end up footing the bill for large transportation projects. Most U.S. railroads, several of the old independent New York City subway lines and more recently the Channel Tunnel between France and Britain went bankrupt and required state aid.

Politicians, however, also can take the credit for the harder-to-value benefits of a good system. Reduced traffic, improved productivity and, in this case, lower pollution would be welcome. Without someone like Musk sticking out his neck, though, such opportunities rarely come along.

*Antony Currie, Kevin Allison, Aug. 13, 2013*



*Tesla Motors Inc CEO Elon Musk demonstrates Tesla's new battery swapping program in Hawthorne, California June 20, 2013. REUTERS/Lucy Nicholson*

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## DRONING ON

### AMAZON PROMISES DRONE DELIVERY.

Amazon is promising yet more jam tomorrow – this time from drone deliveries. Jeff Bezos, the online retailer’s chief executive, expects to be able to use unmanned aircraft to deliver small packages within a few years. It’s a striking vision, but it seems as overly optimistic as investors’ expectations of the company overall. Amazon’s market value has ballooned to \$180 billion despite big profits always hovering in the future.

Drone technology has advanced tremendously over the past decade because of improvements in software, robotics and networking. The use of these unmanned vehicles is already common in the military, and cheap, fast and automated shipping could benefit all kinds of businesses. Bezos says Amazon could use drones within four or five years, delivering goods weighing less than five pounds inside 30 minutes.



*A flock of pigeons flies with a prototype “parcelcopter” of German postal and logistics group Deutsche Post DHL in Bonn, Dec. 9, 2013. REUTERS/Wolfgang Rattay*

It's perhaps fitting that a long-term thinker like Bezos should be testing the boundaries of what's possible. But at best it's a very long way off. The Federal Aviation Administration may start allowing commercial drones to operate in 2015, but widespread use is likely to come only many years later. Letting robots fly freely in densely populated areas poses all kinds of safety, security and privacy questions – never mind logistical challenges and concerns that hackers or old-fashioned villains might intercept the vehicles or the packages they carry.

Bezos has always made clear that he runs Amazon with the goal of rapid growth while maximizing profit over the long run. Getting everyone to talk about his company on Cyber Monday, the most important day of the year for online shopping, will help accomplish the former. Analysts expect Amazon's revenue to be around \$75 billion this year, 23 percent more than last.

But it's still not clear when Amazon will deliver normal, never mind supernormal, profitability. The company expects that it will roughly break even again this holiday quarter. Based on estimates compiled by Thomson Reuters, Amazon trades at a valuation of 165 times the coming 12 months of earnings, against 15 times for its peer group. Like a drone delivering trinkets any time soon, that's a triumph of investor hope over experience.

Robert Cyran, Dec. 2, 2013

## **UP TO DATA**

### **SILICON VALLEY VIEWS A POTENTIAL GOVERNMENT SHUTDOWN AS AN OPPORTUNITY.**

Silicon Valley is storming into the Washington data void. Startup venture Premise is reporting a U.S. inflation gauge, helping to fill a gap left by the government shutdown. The firm uses modern technology to gather more prices more frequently than the official consumer price figures. Once hooked on Big Data, economists may find there's no going back.

Traders, investors and other macro crunchers normally would be keeping an eye out on the morning of Oct. 16 for the September CPI bulletin. As it happens, though, the U.S. Bureau of Labor Statistics is on hiatus while

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Congress and President Barack Obama spar over the budget. Instead, price watchers will have Premise claiming a 0.2 percent rise in the cost of American food staples in September – and a continuing rise so far in October.

CPI is broader, but Premise provides more current information. The BLS dispatches staff to retailers and other establishments on a monthly basis. Premise uses computers to track up-to-the-minute online prices and combines the information with thousands of daily photos submitted by paid smartphone users. In food, where Premise is focused, its index is based on 240,000 product prices against 5,000 in the CPI.

The real-time nature of Premise's data - not to mention the added attraction that it is culling comparable prices for 29 cities around the world - makes it different. In June, for example, Premise says it spotted a noticeable rise in the prices of onions, an important staple in Indian diets, in the streets of Mumbai and Chennai. By the time policymakers noticed and responded weeks later, food inflation had already soared and the rupee had weakened.

The firm reckons stockpiles of snapshots from shops around the world may themselves prove valuable if, say, they reveal a shortage of supply of certain products when shelves are consistently found to be half empty.

Of course, Premise isn't alone trying to find new value in the oceans of data now accessible online. In another example, Monsanto agreed earlier this month to pay over \$900 million for Climate, a firm started in 2007 by former Google engineers to aggregate information on weather and create a self-service insurance market that didn't exist before. As firms extract useful trends, governments may find their own measurements become obsolete. It may take a while for the likes of Premise to build credibility, but a federal closure that enforces official silence can only accelerate that process.

*Jeffrey Goldfarb, Oct. 15, 2013*

## RISE OF THE EASTERN NERDS

The current boom has an international flavor, with new companies popping up everywhere from London to Tokyo. The biggest surprise, however, has been the rapid ascent of Chinese internet giants like Alibaba, Tencent and Baidu. The upcoming float of Alibaba in New York, at more than \$100 billion, gives notice of their ambitions.

### ALI MONEY

**ALIBABA CHOOSES NEW YORK – FOR THE WRONG REASONS.**

Alibaba's preference for New York over Hong Kong could end up improving corporate governance in both cities. The Chinese internet giant is rethinking the venue for a potential initial public offering after Hong Kong regulators balked at its unusual governance structure. While the city-state deserves credit for sticking to its principles, Alibaba's model leaves less room for conflict than the dual-class share structures that are prevalent in New York.



*Jack Ma, chairman of China's largest e-commerce firm Alibaba Group attends a corporate event at the company's headquarters on the outskirts of Hangzhou, China, April 23, 2013. REUTERS/Carlos Barria*

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Silicon Valley has shown that going public needn't mean giving up control. Though the founders of Google and Facebook no longer own a majority of their companies, they exercise authority through super-voting shares that give them a bigger say than outside investors.

As the founder of China's biggest internet company, Alibaba Chairman Jack Ma is also keen to protect the company from the influence of unwanted outsiders agitating for short-term change. But the Hong Kong stock exchange requires all shareholders to be treated equally. As a result, the e-commerce group proposed giving a group of senior executives – known as the partnership – the right to nominate a majority of the directors on its board. Outside investors would still be able to vote against any proposed directors they felt did not meet the grade. But they would not be able to install their own candidates.

Alibaba argued that its structure was no less shareholder-friendly than the Hong Kong tycoons who can maintain control over their empires through cascades of partially-listed subsidiaries. But Hong Kong IPOs must pass muster with the exchange's listing committee and the Securities and Futures Commission. Regulators concluded that the partnership would still exercise control despite holding just 13 percent of the shares, and refused to make an exception. Alibaba is now considering a listing in the United States, probably early next year.

Losing what would have been the biggest IPO of the year is undoubtedly painful for Hong Kong. But its reluctance to bend the rules, even for a company of Alibaba's size, will only enhance its reputation in the long term.

Meanwhile, Alibaba's approach might actually raise the very low bar for listed internet groups in the United States. Though the partnership approach is less transparent than just issuing two different classes of stock, the company cannot entirely ignore its external shareholders. As long as Alibaba uses its unorthodox structure sensibly, its preference for New York over Hong Kong may be a good outcome for both cities.

*Peter Thal Larsen, Rob Cox, Sept. 25, 2013*

## SHADES OF THE VALLEY

**WEIBO SETS THE SCENE FOR ALIBABA WITH THE RISKIEST IPO IMAGINABLE.**

Imagine the riskiest possible share offering. It would be a new, unprofitable company with rapid and uncertain growth in an emerging market. One whose customers are fickle, which lives under the constant threat of being snuffed out by regulators, and where external shareholders are dominated by insiders. The listing of Sina Weibo fits the bill. The Twitter-like microblog has also set a low bar for the upcoming market debut of e-commerce giant Alibaba.

Weibo, which filed for an initial public offering on March 14, has enjoyed prodigious growth: revenue has gone from zero to \$188 million in two years. User numbers are dizzying too, with 129 million logging on in December. Not bad for a company that didn't exist before August 2009. Users are influential – statesmen and central bankers rub shoulders with pop stars and property moguls.



*A picture illustration shows icons of WeChat and Weibo apps in Beijing, Dec.5, 2013.  
REUTERS/Petar Kujundzic*

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But the growth comes with some hairy regulatory risks. If a threat to temporarily bar big auditors from working for Chinese companies is carried out, Weibo could be forced to delist. The company relies on the semi-legal “variable interest entity” structure used by many Chinese groups to get around onerous foreign ownership restrictions. Worse, Weibo hasn’t fulfilled a government request to identify all its users, some of which it admits may be fake. According to the company, antsy censors could punish non-compliance with “termination”.

Weibo has also borrowed some of Silicon Valley’s worst governance habits. Not only will it float a minority of its business; the creation of two kinds of shares, one with triple the votes of the other, will further restrict meddling by outsiders. There’s a poison pill that lets the board deflect a takeover offer. The purpose of the IPO is also questionable: parent Sina is already listed on Nasdaq.

Alibaba, which owns 18 percent of Weibo, is planning its own U.S. listing after Hong Kong’s bourse rejected the company’s plan to let insiders nominate most of its board directors. Alibaba’s business of matching buyers and sellers of goods is less flaky than Weibo’s. But with an offering that could be thirty times as big, the stakes for investors are higher. The pricing of both offerings should reflect those risks.

*John Foley, March 17, 2014*



## STAR-STRUCK

**ALIBABA TAKES STAKES IN SMALL COMPANIES: THEIR VALUATIONS GO SOARING.**

Alibaba's latest deal shows the extent of investors' frenzy for China's internet. The e-commerce giant announced on March 11 it had agreed to buy 60 percent of Hong-Kong listed ChinaVision for \$804 million. The film group's market value promptly soared to almost \$5 billion. Star-struck investors are too easily excited.

ChinaVision is issuing new stock to Alibaba at 50 Hong Kong cents per share, a 22 percent discount to its closing price before the announcement, valuing the existing film production and distribution group at around \$1.3 billion. Yet ChinaVision shares, which had already risen before the deal, promptly tripled in value.



*Employees stand next to a logo of Alibaba at its headquarters on the outskirts of Hangzhou, China, June 20, 2012. REUTERS/Carlos Barria*

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Investors seem to be excited about having Alibaba as a major shareholder, but details are missing. ChinaVision's core business is film production and rights distribution, and the company's mobile video operation accounted for just 1 percent of total revenue in the first half of 2013.

Investors may be betting on Alibaba moving into digital entertainment – it launched a set-top box and TV operating system last year. ChinaVision's movies and film rights could help give it a toehold in online video and entertainment. But even if Alibaba is successful, it's not clear that would transform the Hong Kong unit's prospects.

Another possibility is that Alibaba wants to use ChinaVision as a back door route to a stock market listing. Jack Ma's company is locked in an impasse with Hong Kong stock market regulators over its corporate governance structure. In the unlikely event that Alibaba tried, it's hard to imagine the authorities would allow a company with a likely valuation of more than \$100 billion to sneak onto the market.

There are two possible conclusions to draw from ChinaVision's surge: either the founders undervalued the company when selling to Alibaba, or investors have become star-struck. The latter seems the more likely. Earlier this year, Alibaba participated in a consortium that invested \$170 million in a pharmaceutical data company. The shares have risen seven-fold since the announcement. Shares of China South City Holdings, a logistics firm, have doubled since it sold a 9.9 percent stake to media and gaming giant Tencent. As long as investors are so easily excited by China's internet, companies will continue to cash in on their enthusiasm.

*Robyn Mak, March 13, 2014*

## WEHOPE

**TENCENT'S \$136 BILLION VALUATION IS BASED ON MESSAGING HYPE.**

Putting a value on WeChat remains an act of faith. Internet giant Tencent has shed some light on its popular messaging and social media service. But sparse details on costs and regulatory risks make future growth and earnings potential hard to pin down. Valuations are still largely based on hope.

For the first time, Tencent has revealed user metrics and revenue for WeChat, which combines mobile messaging, social media, games and payments. The platform had 355 million monthly active users at the end of 2013, and generated between \$32 million to \$49 million in revenue in the fourth quarter. While this is tiny compared to the \$1.9 billion in revenue the tech giant made from games and selling stickers and other services to its users in the same quarter, it is encouraging for an app that only started to generate income in the final three months of last year.



*Tencent Chairman and CEO Pony Ma poses with mascots inside the company's headquarters in Nanshan Hi-Tech Industrial Park in Shenzhen, China, June 9, 2011. REUTERS/Bobby Yip*

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The figures suggest that WeChat is becoming more than a clone of WhatsApp, the messaging service Facebook bought for \$19 billion in February. Though WhatsApp has more users, its only source of revenue to date is the \$1 a year it charges established users. Details on costs, meanwhile, remain equally scant for both services. Tencent reported selling and marketing expenses of \$920 million in 2013, up 90 percent from the previous year. Though it's not clear how much of that is associated with WeChat, the company previously said it was splashing out \$200 million for an overseas marketing campaign featuring soccer star Lionel Messi.

The land grab may make sense given Tencent's plans to turn WeChat into a conduit for e-commerce and financial services. But this expansion also brings regulatory risks. China's central bank recently suspended a mobile payment system, indefinitely delaying Tencent's planned launch of digital credit cards. Authorities are now also considering limiting the size of mobile payment transactions.

The messaging hype has helped push Tencent's market value to \$136 billion. But comparisons with WhatsApp rest on the questionable assumption that Facebook's offer was based on some sort of financial logic. For investors trying to guess at WeChat's potential, only a leap of faith will do.

*Robyn Mak, March 20, 2014*

## SHIFTING SANDS

### CHINA SHIPS COALS TO NEWCASTLE.

China is making strides into Silicon Valley. Tencent, the gaming and messaging group, may be about to lead an investment into the much-hyped messaging app Snapchat, according to sources cited by AllThingsD. Rival technology giants Alibaba and Baidu are also experimenting with venture capital and overseas investment. If they get a taste, venture capitalists should watch out.

Snapchat would be Tencent's second high-profile U.S. investment in five months, after a \$150 million funding round for online retailer, Fab.com. The group's \$2 billion portfolio of overseas investments is no longer just low-key gaming companies. Snapchat may be more about building influence and getting financial returns than bringing the product back home. It's hard to imagine self-deleting messages pleasing China's draconian internet regulators.



*A woman looks at her smartphone as she walks on a busy street in downtown Shanghai, Sept. 25, 2013. REUTERS/Carlos Barria*

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Tencent is not the only cash-rich outsider cracking open Silicon Valley's doors. Alibaba announced in October that it will open a U.S. investment arm, having funded at least three U.S. companies this year. Baidu has unveiled an artificial intelligence research lab in California.

True, corporations such as Google and Samsung have already muscled their way into the start-up funding space. But Tencent and its compatriots have something extra: a direct connection to China. While Snapchat may be unavailable to China's 600-or-so million web users today, having powerful backers in the People's Republic will give it options later. Meanwhile, Chinese investors can engage with entrepreneurs and innovators to lay the groundwork for future expansion into U.S. markets.

This should worry other tech backers for two reasons. First, new equity capital entering Silicon Valley has pushed up valuations in the past few years. That has priced some discerning venture capitalists out of the early-stage funding market.

More importantly, Tencent has the advantage of not having to disclose the performance of its individual investments to its own backers. With a consensus revenue forecast of 60 billion yuan (\$9.8 billion) for 2013, and 15 billion yuan of cash on its balance sheet as at the end of June, investors in the Hong Kong-listed group won't be paying much attention to Tencent's sporadic investments in venture capital. Unless, of course, it happens to hit upon Silicon Valley's next big hit.

*Robyn Mak, Nov. 5, 2013*



## ALIBABA AND THE 12 DIGITS

A PRESCIENT PIECE ON WHY ALIBABA COULD BE WORTH \$100 BILLION.

Could Alibaba be China's next \$100 billion stock market listing? The Hangzhou-based e-commerce giant continues to be coy over when it will take the plunge. But sooner or later founder Jack Ma will need to offer some kind of exit for his backers, not to mention employees, and an initial public offering is the most likely solution. Now is a good time to start asking how the company should be valued.

Alibaba's main business is selling. Its Tmall online stores provide a shop front for brands like Nike and Unilever, while Taobao is focused on consumer-to-consumer trade. The closest U.S. peers might be Amazon and eBay. Sadly for valuation purposes, there's no perfect match: unlike Amazon, Alibaba doesn't hold inventory or manage warehouses, and unlike eBay, it gets most of its revenue from advertising, not charging users.

Meanwhile, its range of services gets ever wider, and potentially harder to value. As well as accounting for the majority of China's e-commerce, a market worth \$204 billion last year according to the China Internet Network Information Centre, Alibaba now has a mobile operating system, offers trade financing to vendors and may even start offering consumer loans. The company's chief strategist says it aims to be "the world's biggest data sharing platform".

### MAGIC NUMBER

Fortunately, there are two numbers that really matter. One is how much Alibaba can sell. The other is what percentage "take" it gets from each transaction on its sites. That take might come through advertising or through transaction fees, or a mixture of both. But ultimately, it represents the cash the company can squeeze out of its sellers. Other services like lending may create revenue, but for now they are mainly ways to lock in users and maintain market share.

Consider a back-of-envelope valuation exercise. The first question is how big the overall market can get. Say e-commerce in China grows 35 percent a year for the next two years, and that Alibaba can keep its current market share of around 80 percent. That would give it just under \$300 billion of transactions in 2014 – over four times what eBay's marketplaces handled in 2012.

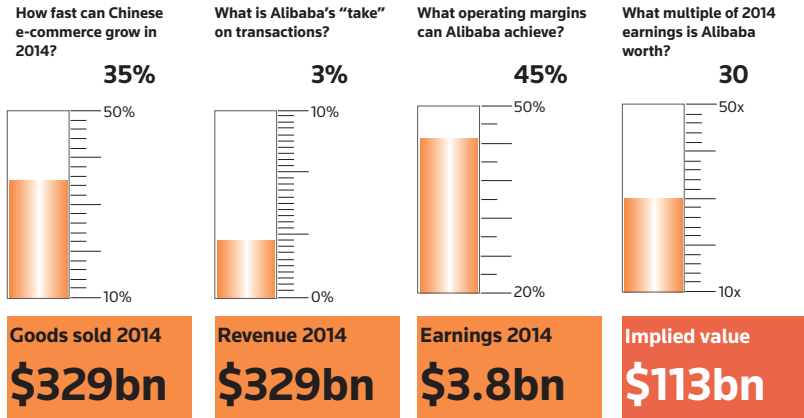
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Now imagine Alibaba can raise its “take” to 5 percent – roughly double what it gets now. For now, Taobao sellers use the site for free, but having reached critical mass, Alibaba should be able to exploit the “network effect” of its 500 million users to generate higher income, either by introducing transaction costs or selling more targeted ads. A 5 percent “take” would still be just a third of what eBay gets from many of its sellers, and would generate \$15 billion of revenue for Alibaba.

The next question is profitability. Apply a 30 percent operating profit margin – roughly the level in September 2012, the last period for which there are reported numbers – and the 15 percent tax rate many of China’s high-tech companies enjoy, and 2014 earnings would be \$3.8 billion. On a forward earnings multiple of 25 times, the recent average for listed Chinese gaming network Tencent, that suggests a market value of \$95 billion.

## What is Alibaba worth?

Flex the numbers to see what China’s e-commerce giant might fetch in an IPO



P. Thal Larsen, V. Flasseur 20/02/2014

[Click on the graphic to view online, interactive version.](#)

**OPENING SESAME**

In reality, many more factors will affect Alibaba's magic number. Ma will need to time the stock market cycle, but also the tech cycle. With many foreign backers, Alibaba will most likely need to list on foreign markets, where stock buyers will be influenced by what they think of China's regulation, economy and accounting practices. Valuations for companies like Baidu, Renren and Sina show gyrations not always explained by the performance of their underlying businesses.

Valuations change quickly. Facebook's went from \$50 billion in its fundraising at the end of 2010 to \$104 billion at its IPO in 2012; the company now trades at just two-thirds that value. When Yahoo recently sold half its Alibaba stake back to the company, the deal valued the company at just \$40 billion. But a bilateral negotiation by with a troubled U.S. company is very different to a stock market listing.

Besides, internet companies are inherently volatile. Super profitability attracts super competition, and disruptive technologies can take even established models by surprise. Netscape and Microsoft both showed how supposedly unassailable market positions can be lost as well as won. If a twelve-digit valuation is within reach, it makes sense for Alibaba to open the cave sooner rather than later.

*John Foley, April 25, 2013*



## RED HOT CHIPS

### THE REVIVED LOVE AFFAIR FOR CHINESE LISTINGS IN THE UNITED STATES.

For U.S. investors, love of technology has conquered a fear of China. Shareholders are snapping up shares of Chinese internet companies going public stateside. It's a striking contrast with the recent past, when accounting scams and poor governance prompted many to shun mainland stocks.

Travel booking website Qunar, which doubled in value on its first day of trading on Nov. 1, is the prime example of the new boom. The same week, shares in local listings group 58.com – billed as China's Craigslist – jumped almost 50 percent on their debut. The interest is proving contagious: Autohome, a car-shopping website, filed for a New York initial public offering on Nov. 5. Online sports-lottery operator 500.com and mobile applications group Sungy Mobile are also preparing to go public.



*Red flags flutter next to a national emblem and a national flag of China on top of the Great Hall of the People in Beijing, March 12, 2014. REUTERS/Petar Kujundzic*

It's less than three years since a series of frauds and accounting scams cast a shadow over U.S.-listed Chinese companies. Valuations tumbled and IPOs dried up. Even now, just four Chinese companies have listed in the United States this year, according to Thomson Reuters, raising a total of \$358 million. Back in 2010, those figures were ten times as large.

The latest batch of listings still raises some red flags. Due to government ownership restrictions, mainland internet businesses can only be listed overseas by setting up "variable interest entities", which their offshore parents control through contracts rather than direct shareholdings. The accounts of the new listings are prepared by Chinese auditors, which aren't supervised by U.S. accounting regulators.

Existing ownership offers some reassurance. Chinese internet giant Baidu retains a controlling stake in Qunar while Autohome has been under the control of Telstra, the Australian telco, since mid-2008. Nevertheless, investors seem more interested in buying growth than pricing risk. U.S.-listed internet stocks are up 25 percent since the end of June, and China's expanding economy and increasingly active consumers are powering revenue.

As for all internet stocks, valuations could prove fragile to increased competition or technological changes. Well known Chinese worries just add a further level of uncertainty. But for now, rapid revenue growth is trumping caution.

*Peter Thal Larsen, Nov. 6, 2013*

## MOBILE BATTLE

### TWO CHINESE INTERNET GIANTS BATTLE.

Two of China's internet companies are joining forces against their common foe: Alibaba. Tencent is injecting its also-ran e-commerce units and \$215 million in cash into JD.com for a 15 percent pre-IPO stake in the online retailer. More importantly, the two will collaborate on mobile commerce. Both have the same objective: erode Alibaba's dominant market share.

Despite being one of China's largest internet companies, Tencent is a marginal player when it comes to selling goods online. The two businesses it is transferring to JD.com have net assets of just 398 million yuan (\$65 million) and lost a combined 71 million yuan in the nine months to last September. Rather than sink more money into the businesses, Tencent has decided to throw its weight behind China's second-largest internet retailer.



*Jack Ma, chairman of China's largest e-commerce firm Alibaba Group talks to a guest at the company's global operation room during a corporate event at the company's headquarters on the outskirts of Hangzhou, China, April 23, 2013. REUTERS/Carlos Barria*

On the face of it, Tencent is getting a bargain for its 15 percent stake in JD.com: the combined value of the cash and the assets is just \$280 million, implying a skimpy \$1.87 billion valuation. However, the real worth, which is harder to measure, is in the collaboration between the two companies. First, Tencent will direct users from its social network platforms and WeChat messaging app to JD.com's services. Second, shoppers will be able to use WeChat's mobile payment system to pay for their purchases.

The endorsement from Tencent, which has agreed not to sell its shares for three years, provides a welcome boost to JD.com as it gears up for its initial public offering. Despite its scale and rapid growth, the business is in the red and needs external financing to keep going. Moreover, Tencent has agreed to buy a further 5 percent stake in the IPO, and may well add to its shareholding over time.

For Tencent, it's a further sign that the company is seeking out allies in a broader battle. Alibaba dominates online retailing in China with an 80 percent share of consumer-to-consumer transactions, and last year bought a stake in Sina Weibo, the popular microblogging platform. In the struggle between the two internet giants, it will be increasingly hard for others to remain neutral.

*Peter Thal Larsen, Robyn Mak, March 10, 2014*

## SEEDS OF THE NEXT BOOM?

The current boom may be on its last legs, but Silicon Valley is already sowing the seeds of the next one – or two. Here are some candidates.

### ROSETTA WIGS

**STAR TREK'S UNIVERSAL TRANSLATORS ARE TANTALIZINGLY CLOSE TO COMING TO LIFE.**

Dreams of a universal speech translator have tantalised geeks since the days of "Star Trek". Now it might be close to reality. Google, Baidu, Microsoft and IBM are among those working on technologies that would allow real-time conversations between people who don't speak the same language. Make the devices wearable, and the result could put a new accent on global growth.

The cost of language barriers is significant, but hard to quantify. Indiana-based researcher Travis Selmier has calculated that countries which speak the same language trade 38 percent more than countries who don't – and investment almost doubles. For many countries, that means that attracting capital and trade imposes the cost of learning a dominant language, say English or Spanish.

Strides in text translation already show polyglossia opens markets. Asian audiences are now watching Western TV shows with subtitles typed by volunteers looking to brush up their language skills, and often within hours of original broadcast. Viki, a crowdsourced video platform, announced a tie-up with China's Baidu on Dec. 19 to bring global shows to China, and vice versa. Its founder reckons that adding subtitles in major languages can quadruple the audience for an online video.

Speech-to-speech translation is tougher. Baidu's apps can translate a menu and read it aloud, recognise Chinese dialects and even Song dynasty poetry. But most current speech devices only work with no background noise, and are limited by the bank of available reference data. Commonly used acoustic models listen for noises but not specific tones.

The next great leap is “neural networks” that see and hear underlying meanings the way human brains do. These are still in their infancy. What exists may be good enough for simple trade, but investment, which demands more prolonged and nuanced interaction and understanding of unspoken cues, may need to wait for an age of super-powerful quantum computers.

Wearable technologies mean there’s much to play for even now. Glasses, headphones and even smart-wigs – an enticing idea from Sony – should offer portable interpretation good enough for tourists, if not for lawyers and diplomats. As tonal analysis and motion sensing get more advanced, even reading body language and emotions might become reality. The fictional “babelfish” is only the beginning.

*John Foley, Dec. 19, 2013*



*An actor dressed as a Klingon checks his email before a performance in Chicago, Dec. 20, 2012. REUTERS/Jim Young*

## BREAKINGVIEWS

## CIRCLES IN CIRCLES

**ELON MUSK ISN'T CONTENT WITH JUST TAKING ON DETROIT. HE'S ALSO PUTTING HIS SIGHTS ON UTILITIES.**

Tesla isn't just taking on the car industry. Its plan to spend \$5 billion on a state-of-the-art battery plant will also put electric utilities on the spot. Founder and Chief Executive Elon Musk reckons his so-called Gigafactory, due to open in 2017, will double world lithium-ion battery production by 2020.

He's betting the resulting drop in production costs will make his cars affordable enough to sell 500,000 a year by 2020 – 15 times as many as Tesla managed last year. The knock-on effect may also leave electric pylons looking as outdated as telephone poles.

Musk, who is also chairman of solar-panel installer SolarCity, has already predicted that renewable energy will bring "strife" to utilities companies. And in its annual report published last week, Tesla stated that it is developing stationary energy storage systems for homes.

He's not the only one predicting trouble for the sector. Some \$170 billion of utility revenue, around a third of the current total, could be at risk by 2017, due mostly to the growth of renewable energy, estimates the Edison Electric Institute, an industry lobby group.

Both home storage and electric cars suffer from a bit of a chicken-and-egg problem, though: they make little economic sense for most people. It's cheaper for homes attached to the electric grid to simply get their power from the local utility. And the cost of lithium-ion batteries makes electric cars expensive. Tesla's Model S, for example, starts at about \$70,000, so is necessarily pitched solely as a luxury car.

The growth of solar power and cheaper batteries may change that. The increasing demand for all manner of electronic gadgets has already helped. Over the past decade, the cost of producing high-tech batteries has fallen about 6 percent per year as producers reap economies of scale and improve technology.



Tesla's Gigafactory should give that an even bigger jolt. Musk reckons it will reduce battery costs by 30 percent. Not only would that allow him to drop the price tag for the Model S. It would also make his plans to produce a mass-market car for around \$35,000 – and his goal of selling half a million vehicles by the end of the decade – more achievable. It's still ambitious: that's the same number of hybrid cars sold by all manufacturers combined in the United States in 2013.

Meanwhile, tax incentives and steadily falling prices for panels have helped solar installations bloom in states where it is sunny or utilities charge high costs. That trend's likely to grow – SolarCity estimates that government subsidies won't be needed in a few years to make solar cost effective.

So far, the effects on utilities have been minimal as only some 1 percent of power currently comes from solar. But utilities worry when they look at cloudy Germany, which already gets 10 percent of its power from solar. Utility profits there have been ravaged as solar production in the middle of the day has slashed peak prices.

The U.S. utilities industry has responded to the threat of falling power sales by lobbying in several states for increased fees on users to connect to the grid. The idea is that solar users may produce power, but since few can store electricity they still need to pay for a backup connection for times when it's dark or cloudy.

That strategy may not be sustainable – and the utilities may even be feeding their rivals. On costs, Tesla's off-grid battery will essentially be competitive with a grid connection in areas where utility prices are high by the time the factory hits its stride, estimate analysts at Morgan Stanley. That's already the case for corporate users in Hawaii, estimates the Rocky Mountain Institute, a think tank.

Moreover, as battery prices decline that should encourage more customers to unhook from the grid. This could potentially set off a downward spiral for utilities. They have huge fixed costs from building a fossil fuel and electric transmission network. Raising prices for customers remaining on the network would only make electric storage more attractive, encouraging more defections.

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That's a potentially huge market. California has 12.5 million households, is sunny, has expensive electricity and many of its politicians favor green energy. If just 10 percent of families eventually switch to solar with battery backup, the storage would be about equivalent to the estimated annual production of Tesla's new factory.

Of course, trying to make predictions a decade or more ahead is a fool's game. Many rivals and new technologies will be chasing this opportunity. Politics may give the incumbents an advantage in this heavily regulated market. But no one can accuse Musk of thinking small.

*Robert Cyran, March 6, 2014*

## **CYBER-SMUG**

**THE SCALE OF HACKING BY STATES, INDIVIDUALS AND CONCERNS HAS BECOME INCREASINGLY EVIDENT – CREATING A BIG OPPORTUNITY FOR COMPANIES THAT CAN PROTECT AGAINST INTRUSIONS.**

The hacks have been hacked. The New York Times, the Wall Street Journal and other media outlets have revealed network intrusions – seemingly from China. They think the hacking is related to their investigations of the Beijing regime. But news paranoia is only a small part of a big story.

Defenses are necessary because electronic spying is everywhere. The United States government does it for geopolitical reasons and there's plenty of evidence pointing to industrial espionage by entities linked to the Chinese government. Other governments, unscrupulous rivals and criminals all see electronic opportunities.

The recent media hacking episodes have been publicized, but Mandiant, the expert consultancy that the Times brought in, said in a report last year that often-undisclosed attacks occurred in industries from aerospace to energy and technology and beyond. Mandiant also said that in 94 percent of the incidents it studied the victim learned of the hacking from an external source – for example a government agency.

Another finding shows that data security requires much more than password protection. In 100 percent of the attacks Mandiant investigated, the perpetrators used legitimate credentials. Big defense contractors are grasping the need to detect odd activity inside their systems, not just to prevent unauthorized access, but other industries – even internet-based ones – still have a lot to learn.

The recent Chinese interest in Western media does not seem to be financial, but online criminals are always looking for weak links. Eugene Kaspersky, founder of the eponymous Russian internet-security company, told Reuters in November that cybercrime could earn crooks \$50 billion or maybe \$100 billion annually. No solid numbers are available, since companies usually prefer to hide these losses.

That may be changing. The EU may require companies to report cybersecurity disruptions to authorities, the Journal reported on Feb. 5. And last June – appropriately writing in the Times – Preet Bharara, the U.S. attorney for the Southern District of New York, said that businesses “are not doing nearly enough to protect themselves, their customers and their shareholders.” That sounds a bit like a threat. If economic and intellectual-property losses don’t make companies read between the lines and get a grip on hacking, legal risks might just do so.

*Richard Beales, Feb. 5, 2013*

## **GLITTER IN THE DARK**

### **SPACE MINING MIGHT OFFER THE NEXT BONANZA.**

Shady corporation sends robot army into space to mine precious metals from asteroids. That’s the basic setup of Blade Runner, the sci-fi epic that hit cinemas 30 years ago this June. It’s also the business plan for Planetary Resources, a U.S. startup that has outlined its strategy to take the mining industry into near-Earth orbit. The economics look challenging, to say the least. But the idea is not completely bonkers.

The hitherto publicity-shy company’s backers, including Google billionaire Larry Page and Titanic director James Cameron, are hardly the first eccentric technologists to cotton onto the idea. Mining from asteroids

## **BREAKINGVIEWS**

has been a staple of futurist thinking since the Russian rocket pioneer Konstantin Eduardovich Tsiolkovsky first proposed it in the early 1900s.

Fast-forward a century and high commodity prices, a mini-boom in private space flight and miners' soaring labor and energy costs have combined to reinvigorate interest in tapping the vast resources of outer space. The cost of mining platinum on earth is rising at 16 to 20 percent per year. Anglo American, the world's biggest platinum producer, estimates that about half the world's production is unprofitable at today's price of about \$1,500 per ounce.

Assuming they could be economically put into orbit, space-faring robots equipped with solar panels or small nuclear power plants would be largely immune to such cost pressures - and wouldn't go on strike, either. Peter Diamandis, Planetary Resources' co-founder, estimates a single asteroid 30 meters in diameter could contain up to \$50 billion worth of platinum. There



*A small part of the Large Magellanic Cloud, one of the closest galaxies to our own, is seen in an undated image taken from NASA's Hubble telescope released Feb. 28, 2014. REUTERS/NASA/ESA/Handout via Reuters*

are thought to be hundreds of thousands of such objects within relatively easy reach of Earth.

Launch and recovery costs may be bigger hurdles to a vibrant asteroid mining industry.

Planetary Resources says its top priority will be to develop cheaper launch technologies. Yet even if it could land a robot miner on an orbiting rock for a fraction of the current \$50 million to \$500 million price tag of modern space missions, getting mined material safely back down could prove excessively costly.

Still, there are worse ways for billionaires to spend their money. Even if the project fails to return a single rock to Earth, its backers may still benefit if the company's technologies find application in space tourism or terrestrial mining – not to mention the odd Hollywood screenplay.

*Kevin Allison, April 24, 2012*

## ACKNOWLEDGEMENTS

Research by Robyn Mak.

Production by Katrina Hamlin.

Design by Gavin White and Nita Webb



### ON THE COVER

Men are silhouetted against a video screen as they pose with a Samsung Galaxy S3 smartphone in this photo illustration taken in the central Bosnian town of Zenica, May 17, 2013. REUTERS/Dado Ruvic

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