



## Inside This Issue:

### This Week's Stories

Google Creates 13 Emoji To Represent Working Women

What The Designer Of The Old Instagram Icon Thinks Of The New One

### Products & Services

A Folding Robot Made Of Pig Parts That Removes Batteries From Stomachs With Magnets

UPS Now Lets You Track Packages For Real — On An Actual Map

### Emerging Technology

It's Coming! The Internet of Eyes Will Allow Objects To See

Disney's Telepresence Robot Is Shockingly Precise

### Mergers & Acquisitions

Soon You Won't Have To Be Rich To Back A Startup

Apple Invests \$1B In Didi Chuxing, China's Largest Ride-Hailing App

### Industry Reports

Google To Pay Arizona Folks \$20 An Hour To 'Drive' Its Self-Driving Cars

Windows 10 Mobile Will Support Fingerprint Scanners This Summer

## This Week's Stories

### Google Creates 13 Emoji To Represent Working Women

May 12, 2016

Spend any time tapping out emoji and you've probably noticed that women are confined to three principal roles: bride, princess and dancer.

While these are lovely things to be, the limited selection grows tiresome quickly, especially in contrast to emojis that show men as a police officer, cyclist and weight lifter.

The disparity was recently the subject of a new Always a Advertising campaign and a *New York Times* op-ed. Inspired by the controversy, four Google employees have suggested a plan to rectify the imbalance. A proposal released by the company this week suggests adding 13 new female emoji to "better reflect the pivotal roles women play in the world."

"No matter where you look, women are gaining visibility and recognition as never before," the Google employees wrote. "Isn't it time that emoji also reflect the reality that women play a key role in every walk of life and in every profession?"



If approved by Unicode Consortium, a nonprofit organization that develops and promotes software internationalization standards, emoji keyboards could eventually include a businesswoman, doctor, health care worker, scientist, school graduate, technologist, factory worker, high-tech worker, mechanic, farmer, chef, teacher and musician.

While the goal of the proposal is to portray professional women in key sectors of the economy, the characters will have matching male emoji.

The authors also noted the importance of portraying gender-neutral emoji for "inclusive representation of all people," but suggested pursuing that goal separately.

Google declined to be interviewed, but in a statement to *Mashable*, the company said the proposal is meant "to encourage the creation and standardization of new professional emojis, specifically focusing on increasing the representation of women."



Mark Davis, co-founder and president of the consortium, is among the four authors who submitted the proposal.

The Unicode Consortium, which is meeting this week, has accepted 79 characters as emoji candidates. They include a prince, a dancing man, a man dressed in a tuxedo, as well as men wrestling and playing handball. Other emoji portray a pregnant woman, a gymnast and Mother Christmas. If accepted, they will be released in June 2017.

[mashable.com](http://mashable.com)

## What The Designer Of The Old Instagram Icon Thinks Of The New One

May 12, 2016

Plenty of people are complaining about the new Instagram logo and want it changed back to the "original." But wrap your mind around this little-known fact: The old Instagram logo — the square instant camera with the tiny rainbow — was actually *not* the original.

Before Instagram had the iconic logo we're all familiar with (and are now wistfully remembering), the app actually brandished a design that looked a lot more like a real camera, designed by CEO Kevin Systrom himself. Systrom said in 2011 that he changed the logo because it "had nothing to do with Instagram," and enlisted the help of one of the app's users, designer and photographer Cole Rise, to design a new one back in the fall of 2010.

But that's not the whole story. *Mashable* caught up with Rise in the wake of Instagram's big change. Far from being bitter over seeing his work cast aside, Rise thinks the new icon is great, which probably isn't surprising since he's a friend and former colleague of both of Instagram's founders.

"I'm super psyched on the new one," Rise says. "I love the minimalism. Regardless of the colors behind it, the white shape — the actual bones of the new symbol itself — is beautiful, and I think that can persist over time."

Rise says he's also a friend of Robert Padbury, one of the architects of the new icon and one of the designers behind other big tech design changes, including Uber's revamp from earlier this year and Apple's huge shift to flat design in iOS 7.

"If anyone is going to update it, I trust that guy," Rise says. "He's done so many great icons. I'm glad to see him riff on it."

### Genesis of an icon

Rise's old design came about when the app was virtually brand-new. Systrom and his co-founder, Mike Krieger, had just formally launched Instagram in the App Store after a months-long beta. Rise was an active beta user (in fact, the app's Rise filter is named after him) and had become friends the pair.



"I was just helping out a couple of buddies of mine who were launching a new photo app," recounts Rise. "I think they're the smartest people in the world. I was really excited about [Instagram] as a photographer."

When the app was about to launch in October 2010, Apple wanted to put Instagram in the store's "featured" section. But there was a problem: The original logo — which Systrom designed himself and was basically a stylized rendering of a real Polaroid OneStep instant camera — was using a trademarked design, and it had to go. So Systrom called Rise since he had recently created a camera-like app icon he liked.

"He said, 'We can't use our current icon because of trademark stuff, so I was wondering if we could buy an old icon you had done.' He was referring to an icon I had designed that was inspired by a Bell & Howell camera, an 8mm camera from the '50s."



That icon was spoken for, however. Rise, who has created his own apps over the years, had designed the icon for his startup, but he told Systrom he might be able to rework the design into something for Instagram. Systrom gave him an hour.

Rise went to work, and in about 45 minutes, the Instagram logo was born.

"I made this brand-new imaginary camera that was Bell & Howell-inspired, with elements of the old icon so it was an easier transition," he says.

The logo Rise submitted that day was a less-polished version of the logo we've been tapping on for years. He continued to iterate with Systrom's guidance, adding details like adding an overhead lighting effect, and detailing the room reflected in the camera lens (you can see a window if you look closely). The final version of Rise's icon shipped with Instagram 2.0 in 2011.



"We got really nerdy on it," Rise says. "As a joke, we designed the back of the icon. We shipped it off to Facebook when they got acquired, it was a nice handoff."

Although Rise likes the new logo, there's been plenty of panic on Twitter about the change, particularly with the choice of colors and the gradient. He chalks the reaction up to the standard hand-wringing whenever a major product or service changes.

"It's kind of like the Uber redesign — people freaked out, and now it's totally fine. Change can be hard, and people will have to adjust to it, but I think people will love the new stuff once they get used to it on their home screens."

[mashable.com](#)

## Products & Services

### A Folding Robot Made Of Pig Parts That Removes Batteries From Stomachs With Magnets

May 12, 2016

Researchers from MIT, the University of Sheffield and the Tokyo Institute of Technology joined forces for a project that reads like something out of a William Burroughs novel. Crafted from dried pig intestines, [the little origami robot](#) is designed to hatch from inside a swallowed capsule and unfold like an accordion.

Once inside the swallower's stomach, the little meat 'bot moves around with a "stick-slip" motion, utilizing the friction of its surroundings to propel itself forward, while steering with magnetic fields. Those magnets serve a dual function — they also go to work picking up small batteries swallowed by the ingester.

Apparently it's a more widespread problem that you likely know. According to MIT's numbers, 3,500 watch batteries are reported as swallowed in the U.S. each year. Some of them are gotten rid of the old fashioned way, but sometimes they burn the stomach or esophagus tissue while in there. So researchers figured this would be as good a use as any for the folding robot they'd been working on.

There are more pig parts involved in this story, incidentally. Once researcher Shuhei Miyashita determined this was a solid application for the robot, he went out and bought a ham and stuck a battery inside. Here's fellow researcher, Daniela Rus: "Within half an hour, the battery was fully submerged in the ham. So that made me realize that, yes, this is important. If you have a battery in your body, you really want it out as soon as possible."

The team went back to the giving pig when it came time to design a fake stomach for testing, using a pork stomach to determine the mechanical properties of the digestive system. Ultimately, however, they built the model out of silicone, adding in water and lemon juice to simulate stomach acids.

[mashable.com](#)

### UPS Now Lets You Track Packages For Real — On An Actual Map

May 12, 2016

There will be no more sweating in anticipation when your package shows as "out for delivery," my friends. UPS has finally rolled out *true* package tracking, letting you see exactly where the truck carrying your item is on a map right from your smartphone or PC.

Now don't get too excited just yet; for now, the minute-by-minute tracking — branded "Follow My Delivery" — is only available for pricey UPS Air and UPS Worldwide Express deliveries. And you'll need to sign up for a (free) UPS My Choice account if you want the advanced tracking capabilities. My Choice also lets you reroute "most" packages to your workplace, a neighbor's house, or a nearby UPS Access Point location if you won't be home to sign for a precious delivery.

Back to the tracking: you'll be able to see the UPS driver's position on a map, but it won't actually display his or her exact route, which makes sense since that'd be a whole different level of creeping on your hard-working delivery person. Either way, what you're getting now is way better than counting the seconds and falling into despair until that black and tan truck pulls up in front of your door. UPS plans to roll out Follow My Delivery for its other tiers of service in the future.

[theverge.com](http://theverge.com)

## Emerging Technology

### It's Coming! The Internet of Eyes Will Allow Objects To See

May 13, 2016

*"Similar to the Internet of Things, the IoEyes is a network of cameras and visual sensors connected via the internet enabling the collection and exchange of visual data on a scale unimaginable before. The ability for these objects to see is only the beginning of a process that will have an exponential impact on all business sectors and, ultimately, the human race."*

In the near future, every inanimate object we interact with may not only have the ability to see, but could also improve our lives.

In order for this visibility to happen, objects will need the assistance of visual sensors and cameras.

Though hotly debated in privacy sectors, experts agree that dozens of tiny cameras and eventually nano cameras will soon be built into objects, providing devices the ability to see from every angle and in real time.

As Serge Belongie, Professor of Computer Vision at Cornell Tech points out, "There may be significant barriers to social acceptance faced by always-on cameras everywhere. People may ask, what's the point? Where's the value? Why would I want cameras pointed at me all of the time?"

"While I don't know when the turning point of acceptance will occur, it will coincide with a broad realization that this kind of visual technology, combined with smart cameras in fixed locations at home and at work, can in fact improve our health, aid our memory, and provide us new ways to care for loved ones."

Before you rejoice in technological advancements (or throw out your fridge in fear) it's imperative to know how we got here and what it means for human progress.

#### What it means to truly see

I call this all-seeing market opportunity the Internet of Eyes (IoEyes), and it will empower and connect various inanimate objects – from clothing to mirrors, refrigerators to buildings... maybe even the paint on your walls will have the ability to see.

Similar to the Internet of Things, the IoEyes is a network of cameras and visual sensors connected via the internet enabling the collection and exchange of visual data on a scale unimaginable before. The ability for these objects to see is only the beginning of a process that will have an exponential impact on all business sectors and, ultimately, the human race.

As part of a broader visual technologies market, which capture, store, analyze and monetize any visual content relating to consumers, the IoEyes is expected to have a horizontal impact on all business sectors as well as humanity.

Erik Solem, whose company Mapillary crowd-sources street photos, believes IoEyes will only have a positive effect on society as a whole.

"At Mapillary we aim to understand places and how they change over time using crowdsourced photos, cameras and visual sensors, combined with computer vision. This automated type of understanding will improve anything from the future of automotive, building safer smarter cities, and

understanding remote locations. I am excited for the Internet of Eyes to improve our lives as a key component in the future of our societies.”

This market is sure to be a catalyst for another technological revolution.

This is the core of why industry experts meet to discuss and inspire one another on how Visual Technologies and the Internet of Eyes at the annual LDV Vision Summit.

### **Love at first sight**

The combination of different types of visual data from photographic, thermal, CT, MRI, X-ray, ultrasound, and white light with computer vision, machine learning, and artificial intelligence will deliver high quality signals unlike anything we’ve had previously.

Imagine performing a simple daily task and knowing what’s going on inside your body.

A real-time visual feed of you brushing your teeth will generate not just one visual signal but millions of layers of signals, including analyzing heart rates, blood conditions, DNA structure, temperature, and emotional state.

Bathroom mirrors will capture multiple types of visual data, giving us a health score every time we looked in it while sensors could detect how much alcohol we’ve had or tobacco we’ve smoked – and possibly project an expected lifespan as a result.

Sentiment analysis via computer vision will tell us if we are more anxious, stressed, or happy in real-time – acting as fitness trackers and giving us a daily health score helping us better understand our health trends over time.

Two companies who leverage computer vision to deliver sentiment analysis are Affectiva and Emotient which was recently acquired by Apple.

These simple actions translate into trillions of frames of potentially actionable data. The value lies not only in being able to see what is happening at any given second, but also in having computers analyze multiple trends over time.

Sensors in your buildings will be able to manage energy costs more efficiently by seeing where people are in the building and learning their patterns of activity.

One unique company, Enlighted, enables this analysis through dense networks containing a combination of sensors including thermal data.

“From healthcare to retail to office environments, smart sensors are enabling building owners and operators to make strategic decisions rooted in data they never had access to before such as real time occupancy and occupancy patterns,” says Enlighted CEO, Joe Costello. “Leveraging this sensor data will enable businesses to operate more effectively, environmentally, and hopefully improve our lives.”

Another company leveraging visual data from cameras is Placemeter which visually tracks the activity of people for retailers, real estate, and governments.

“Placemeter gives eyes to your city, enables it to understand how people move around, use its amenities and services, and consequently optimize resources and infrastructure to make our cities more efficient, safer, and smarter. Internet of Eyes technologies like ours deliver useful data without compromising an individual’s privacy and hopefully will improve businesses and our lives,” says Alex Winter, Placemaker CEO and Founder.

Similarly in our homes, companies such as Canary and Camio are leveraging computer vision and multiple different signals to manage quality of life and security.

Keys for our home, car, and office have gone essentially unchanged since they were invented in 1861, but they will soon become a cute historic artifact, replaced by biometrics that analyze your face, eyes, and emotional characteristics.

#### **Why it's important to have a vision**

The IoEyes will be a more accurate form of security, leveraging authentication techniques that rely on physical characteristics. More importantly, these signals will be able to be combined with other signals for better understanding.

Why it's The IoEyes will be a more accurate form of security, leveraging authentication techniques that rely on physical characteristics. More importantly, these signals will be able to be combined with other signals for better understanding.

Eyelock, EyeVerify, and others are already working on biometrics to fill these needs.

The benefits of biometrics and sensors offer invaluable support.

From deterring people from driving when they are too intoxicated, to making sure your teenage daughter isn't bringing home that boy you don't like when you aren't around. One day your house may sense that you're tired after a long work day, automatically dimming the lights near your favorite recliner and instructing your robotic butler to pour you a glass of your favorite scotch.

#### **IoEyes isn't blinded by the future**

These examples only scratch the surface of how IoEyes will empower businesses and individuals.

Other sectors that will benefit from IoEyes include virtual reality, manufacturing, E-commerce, augmented reality, fashion, publishing, gesture recognition, robotic imaging, importing and exporting, mapping, and financial markets.

Many business opportunities and life improvements will surface that we cannot yet fathom.

Cameras are no longer just for memories but are fundamental to improving our daily lives – both in our personal and professional lives.

[thenextweb.com](http://thenextweb.com)

## **Disney's Telepresence Robot Is Shockingly Precise**

May 12, 2016

Disney Research has built an incredibly accurate telepresence robot that can nearly match a human's motions one for one. The telepresence robot uses a combination of stereo cameras and an air and water hydraulics system, which allows for more precise controls by its human operator.

The operator uses a head-mounted display to see through the robot's perspective, and can handle delicate objects like eggs without cracking them, and even thread a needle. Although this is far from the first telepresence robot — theme parks have used different variations of telepresence robots to allow characters to naturally interact with people — Disney's offering shows the potential of telepresence robots can go much farther than simply waving at kids in Magic Kingdom.

[theverge.com](http://theverge.com)

# Mergers and Acquisitions

## Soon You Won't Have To Be Rich To Back A Startup

May 13, 2016

New crowdfunding rules taking effect Monday will allow anyone to invest in startups—not just wealthy people.

The change overrides a longstanding Securities and Exchange Commission requirement that investors backing private companies be "accredited," meaning they make at least \$200,000 a year and have a net worth of \$1 million or more (excluding their home).

Now startups raising money through online crowdfunding portals will be able to sell shares to people regardless of their wealth or income so long as the founders have submitted annual financial reports to the SEC. In exchange, companies can raise up to \$1 million.

The rules, implemented as part of Title III of the JOBS Act, were four years in the making and the result of industry lobbying to make the process more democratic. The big question is how much the change will transform crowdfunding, which has typically rewarded backers with T-shirts, events tickets and early iterations of gadgets.

While some startups are keen to sell shares to small investors, others are hanging back because they find the rules too onerous and the fundraising limit too low. Meanwhile, Kickstarter, the biggest and best-known crowdfunding site, has no plans to join the party. As a result, regular folk hoping to get in on the next Uber or Airbnb may be disappointed.

It's early days but non-tech entrepreneurs who have trouble attracting venture capital are considered the most likely to take advantage of the option. People like Tom Lix, who's keen to raise \$1 million on the Wefunder portal so he can expand his Cleveland liquor startup.

"I would love for my customers to be my shareholders," says Lix, whose Cleveland Whiskey LLC says it can age whiskey in 24 hours. "I couldn't ask for better fans."

Richard Swart, a founding board member of the Crowdfunding Professional Association, says the new fundraising rules could especially appeal to companies outside venture-capital rich California and New York. He says entrepreneurs in theater, food production and energy have expressed the most interest so far, along with minority-led businesses.

"We're hoping crowdfunding can start to equalize the distribution of funding," says Swart, who also serves as chief strategy officer at NextGen Crowdfunding LLC, a year-old startup that provides information about funding portals, individual companies and crowdfunding regulations.

Still, he and others acknowledge that new funding option could have limited appeal. Jim Fulton, an attorney at Cooley LLP who specializes in corporate and securities law for emerging companies, says many companies, especially in tech, consider the \$1 million limit too low and the costs to register and submit annual results too high. He says fewer than a dozen clients have asked about the option.

Another potential turnoff: a requirement that companies communicate with investors as individuals rather than as a group.

"If you're not going to raise \$5 million," Fulton says, "I don't know why you'd subject yourself to this burden."

The costs vary depending on a company's complexity and how much it wants to raise. Cleveland Whiskey expects to pay between \$40,000 and \$50,000 to raise \$1 million while Anikona Farm, which

operates a coffee plantation in Hawaii, expects to pay between \$1,000 and \$20,000 to raise roughly \$100,000, according to owners at each company.

As of Thursday, five crowdfunding portals had been approved: Wefunder Portal LLC, SI Portal LLC. dba Seedinvest.com, CFS LLC. dba CrowdFundingSTAR.com, NextSeed US LLC. and StartEngine Capital LLC. Three dozen more are awaiting approval.

A spokesman for Kickstarter said the company has no intention of adding equity investing to its platform. But rival crowdfunding portal Indiegogo does.

"It was the original goal of the founders when we launched in 2008 and it still is," says Indiegogo Chief Executive David Mandelbrot, adding the company is working out details with attorneys now and expects to launch something later this year. "Limiting venture financing to accredited investors and treating people differently according to their wealth feels very undemocratic. It's sad it's taken this long to change that, but at least these are steps in the right direction."

[bloomberg.com](http://bloomberg.com)

## Apple Invests \$1B In Didi Chuxing, China's Largest Ride-Hailing App

May 12, 2016

Apple made the bombshell announcement today that it has invested \$1 billion in China's top ride hailing app. Didi Chuxing (formerly called Didi Kuaidi) is often described in U.S. media as Uber's Chinese rival, but it already dominates the market by far. The company claims it fulfilled one billion rides last year and holds 87 percent of the country's private ride-hailing market.

In an interview with Reuters, Apple CEO Tim Cook said, "We are making the investment for a number of strategic reasons, including a chance to learn more about certain segments of the China market. Of course, we believe it will deliver a strong return for our invested capital as well."

Didi Chuxing told Reuters that this is its single largest round of funding so far. It claims to currently complete more than 11 million rides a day and have over 14 million drivers on its platform. The company's other major investors include Tencent and Alibaba, two of China's largest Internet companies, and SoftBank.

According to a WSJ report from February, the company was then in the process of finalizing a round for \$1 billion at a valuation of \$20 billion. A Didi Chuxing representative said Apple's investment is part of the same round, but declined to confirm the valuation. TechCrunch has also emailed Apple for more information.

In a press release, Didi Chuxing founder and CEO Cheng Wei said, "The endorsement from Apple is an enormous encouragement and inspiration for our four-year-old company. DiDi will work hard with our drivers, riders and global partners, to make available to every citizen flexible and reliable mobility choices, and help cities solve transportation, environmental and employment challenges."

China is on its way to becoming Apple's biggest iPhone market, but the company has faced a few recent setbacks there. After years of giving it a relatively free rein for a U.S. tech company, the Chinese government ordered the closure of iBooks Store and iTunes and Movies just six months after the services launched in China.

Furthermore, while Apple's sales in China are still growing, it's at a much slower rate than before as the Chinese economy becomes sluggish and the smartphone market in general faces less demand.

Concerns about Apple's reliance on China prompted activist shareholder Carl Icahn to sell his entire stake in the company earlier this year.

Investing in Didi Chuxing allows Apple to grab a foothold in the Chinese tech market that reaches beyond iPhones—and also gives it a new platform for its other technology. For example, if Didi Chuxing uses CarPlay, that gives Apple another outlet to sell software services in China beside the iPhone, as well as valuable data to tailor apps and maps for Chinese users. Didi Chuxing is also a major potential customer once Apple's self-driving car comes to fruition.

[techcrunch.com](http://techcrunch.com)

## Industry Reports

### Google To Pay Arizona Folks \$20 An Hour To 'Drive' Its Self-Driving Cars

May 13, 2016

From the "best job ever" department: Google is paying Arizona drivers 20 bucks an hour to test a self-driving car.

According to the job listing, the drivers (or self-driving vehicle operators, as Google calls it) need to have a clean driving record, no criminal history, a BS or a BA degree and the ability to type at least 40 words per minute.

The job involves driving 6-8 hours a day in a two person team, five days a week while monitoring the car's systems with "constant focus" and filling up daily reports.

"(Test drivers) give our engineers feedback about how our cars are driving and interacting with others on the road, and can take control of the vehicle if needed," Brian Torcellini, head of operations for Google's Self-Driving Car testing program, told *The Arizona Republic*.

The job listing comes about a month after Google announced it would expand its self-driving car testing program to Phoenix, Arizona (the job listing is for Chandler, a suburb of Phoenix). Google said at the time it wants to capitalize on Phoenix area's desert conditions and test how its autonomous vehicles behave in high temperatures.

Google already runs self-driving car testing programs in Mountain View, California, as well as Austin, Texas, and Kirkland, Washington.

[mashable.com](http://mashable.com)

### Windows 10 Mobile Will Support Fingerprint Scanners This Summer

May 13, 2016

Microsoft is planning to support fingerprint readers for the first time in Windows 10 Mobile this summer. While we've seen facial recognition thanks to Windows Hello, unlocking Windows phones with just a fingerprint has been missing. Microsoft revealed at its WinHEC conference this week that it plans to support fingerprint scanners with the Anniversary Update for Windows 10 Mobile.

It's not clear how many Windows phone makers will opt for fingerprint scanners, but the first device to support the new functionality will be HP's Elite x3. Microsoft notes that some Windows phone

*"Microsoft is currently testing its Windows 10 Anniversary Update, and the company is expected to release it for both desktop and mobile in late July."*

OEMs already have experience using fingerprint scanners from FPC and Synaptics, but that other fingerprint scanners might require more work to integrate into the Windows Hello functionality. Microsoft is currently testing its Windows 10 Anniversary Update, and the company is expected to release it for both desktop and mobile in late July.

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