Technology Happens

(pun intended)

October 3rd, 2016

Ryan Emmons

Director of Information Technology at Luck Stone

- Almost 12 Years at Luck Stone
- Electrical Engineering
- Marketing
- Innovation
- Information Technology
- Passion for This Stuff

I am in no way affiliated with any of the other companies mentioned in this presentation







VALUES

COMMITMENT

Takes personal responsibility for the success of self, others, and the organization

Model safety, health, and environmental stewardship Do what it takes Pursue excellence Celebrate success

INTEGRITY

Earns the trust and respect of others

Be honest
Do what you say
Hold self and others
accountable
Give and receive feedback

LEADERSHIP

Ignites human potential and performance

Value diversity and difference
Develop self and others
Inspire confidence and
optimism
Confront issues

CREATIVITY

Delivers ideas and innovation that add value

Be curious Learn new skills Be open to change Explore and experiment

LUCK STONE VISION

As One Team, We Build Value Inspired By Our Customers.

What's Coming / Happened in 2016

2016









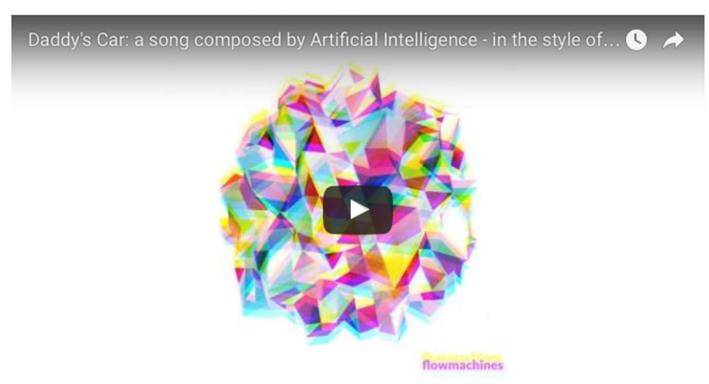


This AI-written pop song is almost certainly a dire warning for humanity

Let's not rule it out, anyway

by James Vincent · @jjvincent · Sep 26, 2016, 7:21a









dis-rup-tion /dis-repSH(e)n/

noun

disturbance or problems that interrupt an event, activity, or process. "the schedule was planned to minimize disruption"

Something that interrupts the way things are.

Disruption is Coming From Non Traditional Sources





Transportation Revolution

Transportation Revolution

Autonomous Vehicles (Driverless)

New Forms of Transportation (Drones, other...)

Decreased Automobile Demand

<u>IGNITING HUMAN POTENTIAL</u>





"I THINK THAT WITHIN TWO YEARS, YOU'LL BE ABLE TO SUMMON YOUR CAR FROM ACROSS THE COUNTRY." –ELON MUSK



THE WALL STREET JOURNAL.

Home World U.S. Politics Economy Business Tech Markets Opinion Arts Life

BUSINESS | AUTOS & TRANSPORTATION | AUTOS

GM, Lyft to Test Self-Driving Electric Taxis

Move aimed at fighting off Silicon Valley giants amid a reshaping auto industry



Logan Green and John Zimmer, the co-founders of Lyft Inc. stand with General Motors Co. President Dan Ammann (center) in front of a Chevy Bolt EV with a Lyft mustache. GM and car-hailing service Lyft, know for its pink mustaches, will begin testing a fleet of self-driving electric taxis on public roads within a year. PHOTO: LYFT INC.

112 COMMENTS

By MIKE RAMSEY and GAUTHAM NAGESH May 5, 2016 10:54 a.m. ET "We are disrupting ourselves."

In October, GM CEO Mary Barra

said the industrial giant won't rely

on the traditional owner-driver

model to keep its business going,

and will "absolutely" make cars for

an age when human driving is

defunct.

<u>IGNITING HUMAN POTENTIAL</u>



Uber launches first self-driving taxi fleet in US

Ride-hailing group to have dozens of autonomous cars operating in Pittsburgh by year-end



© AP

Blog

Industries -

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VC Performance & Rankings ▼

Team Blog ▼

SEPTEMBER 25, 2015

25 Corporations Not Named Google Working On Driverless Cars

























































www.cbinsights.com

Google isn't the only one making moves in the autonomous vehicle arena. There are a host of automakers, auto brands and tech companies also attacking the driverless car market.

Where's this data from? Check us out for free

Business E-mail

SF startup Otto wants to put selfdriving big rigs on highways

By Michael Liedtke

Associated Press

POSTED: 05/17/2016 07:05:29 AM PDT | UPDATED: 22 DAYS AGO



This Thursday, May 12, 2016, photo shows an Otto driverless truck at a garage in San Francisco. (Eric Risberg/Associated Press)

<u>IGNITING HUMAN POTENTIAL</u>

Uber buys self-driving truck startup Otto; teams with Volvo



A photo illustration shows the Uber app logo displayed on a mobile telephone, as it is held up for a posed photograph in central London, Britain August 17, 2016. REUTERS/Neil Hall/Illustration

Otto co-founder Lior Ron



"In Uber, you press a button and an Uber shows up after three minutes," Ron told Reuters."

"In freight ... the golden standard is that it takes (the broker) five hours of phone calls to find your truck. That's how efficient the industry is today."

<u>IGNITING HUMAN POTENTIAL</u>

Self-driving truck convoy completes its first major journey across Europe

EU-backed challenge sets the stage for more automation on Europe's roads

By James Vincent on April 7, 2016 08:54 am 💆 @jjvincent



THE
TECHNOLOGY
IS HERE;
REGULATIONS
ARE NEXT

(Daimler)



Home / Car Tech

US regulator: Google's selfdriving car AI could qualify as a driver

The NHTSA is evaluating a proposal from Google



A Google self-driving car navigates streets near the company's headquarters in Mountain View, California, on June 29, 2015. Credit: Martyn Williams



Feds Hold First Meeting to Discuss National Autonomous Vehicles Regulations

Paul A. Eisenstein
The Drive
April 8, 2016



Autonomous Driving Regulations

John Ribeiro

IDG News Service Feb 10, 2016 6:12 AM

1.8 million American truck drivers could lose their jobs to robots. What then?

One of the last well-paying working-class jobs is basically doomed.

Updated by David Roberts on August 3, 2016, 8:40 a.m. ET 💆 @drvox 💌 david@vox.com





Trucker shortage prompts calls for driverless big rigs

By PAUL BEDARD (@SECRETSBEDARD) • 9/30/16 7:30 AM













When Trucks Stop, America Stops

The United States economy depends on trucks to deliver nearly 70 percent of all freight transported annually in the U.S.,

Accounting for \$671 billion worth of manufactured and retail goods transported by truck in the U.S. alone.

Add \$295 billion in truck trade with Canada and \$195.6 billion in truck trade with Mexico.



Home ↓↓↓

Locations

Programs

Job Placement

Financial Assistance

Request Free Info

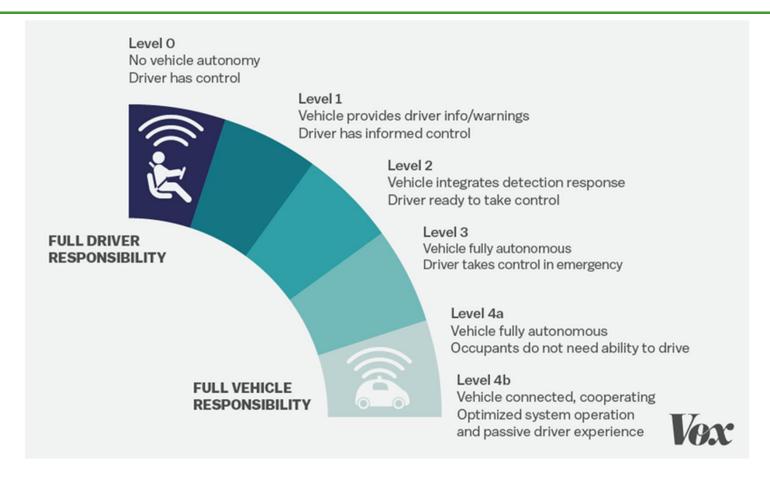
Carriers face Catch 22 of too much work, not enough drivers

The Catch 22 of Autonomous Trucks

Advancement in Autonomous Trucks Could Be Causing The Driver Shortage...

The Driver Shortage may end up being fixed by Autonomous Trucks...

The Cause = The Fix



Trucks have reached level 3 on NHTSA's scale of autonomy:

Business

Fully autonomous self-driving cars get lift from Gov. Jerry Brown











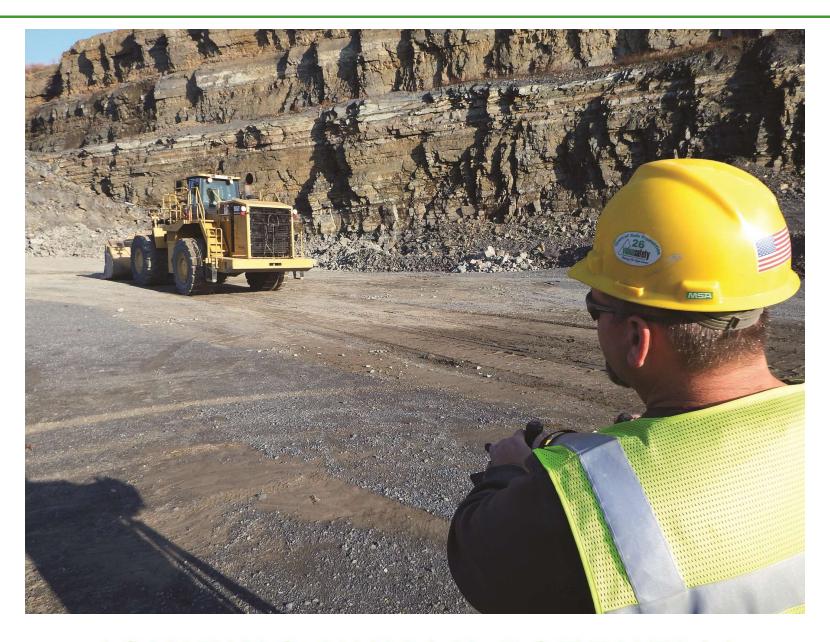
A Google self-driving car travels eastbound on San Antonio Road Wednesday afternoon, Oct. 22, 2015 in Mountain View, Calif. (Karl Mondon/Bay Area News Group)

By ETHAN BARON | ebaron@bayareanewsgroup.com

PUBLISHED: September 29, 2016 at 5:56 pm | UPDATED: September 30, 2016 at 12:22 pm

Consumerization of IT ("consumerization") is a phrase used to describe the cycle of information technology (IT) emerging in the consumer market, then spreading to business and government organizations, largely because employees are using the popular "consumer market" technologies and devices at home and then ...

Luck Stone's Remote Loader



Luck Stone's Autonomous Haul Truck



Play Video

Impact of Autonomous Personal Vs. Professional

Traffic?

Cost to Ship Material?

Speeding?

Logistical Barriers / Competitive Landscape?

Accidents?

Operational Hours?

Commutes?

Shipping Times?

DUI's?

Loading and Unloading?

Insurance Premiums?

Plant Design?



AUTOMOTIVE

UK company launches insurance policy for autonomous cars

Scott Collie | June 8, 2016



Insurance is changing to keep up with self driving cars (Credit: Loz Blain/Gizmag) View gallery (6 images)

- Hacking
- Satellite Failures
- 24 Hours to Update
- Cut \$20B off premiums
 - SAFETY
 - Fewer Accidents
 - Fewer Injuries
 - Fewer Fatalities
- Human Driver? Pay Up.

U.S. Says 7 Million Drones Will Take to Skies Annually by 2020

NEWS

Drone sales soar as fans shrug off rules

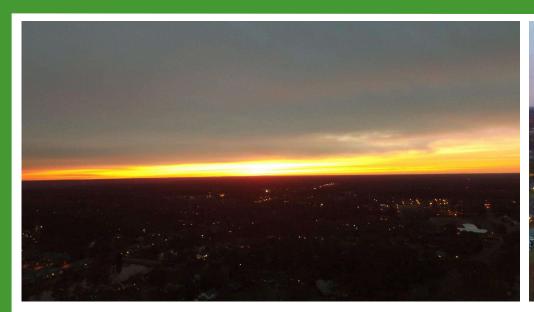
Jan. 20, 2016 Updated Jan. 27, 2016 8:40 p.m.



UAV enthusiasts and entrepreneurs David and wife Sarah Oneal Of Garden Grove fly drones; a Yuneec Typhoon Q500 4K and a DJI Phantom 3 Professional.

JOSHUA SUDOCK, STAFF PHOTOGRAPHER

- 2013 128k
- 2014 450k
- 2015 1.1 Mil
- 2016 2.5Mil est.
- 2020 7 Mil est.







IGNITING HUMAN POTENTIAL







IGNITING HUMAN POTENTIAL

Luck Stone's Use of Drones



Play Video





theguardian

home) tech

election 2016 US world opinion sports

soccer arts

lifesty] ≡ all

CES 2016

First passenger drone makes its debut at CES

Chinese entrepreneurs bring their one-person craft, which is controlled by tablet and capable of flying 60mph, to the annual technology convention



Passenger drone powered by batteries unveiled at CES



Passenger-carrying drone gets symbolic approval for test flights in Nevada

But that's not the same as a thumbs-up from the government

By James Vincent on June 8, 2016 09:12 am 💆 @jjvincent







HTC Vive agains screen shows wh worlds really loo



Mosquitoes stick needles into you they suck your b



Five things I lear Jeff Bezos at Co



Here's why Goog Motion Stills is r favorite iPhone



Gamify your kid

Electric Plane / Drone (Avail in 2018)



'We are going for a plane that can take off and land vertically and does not need the complex and expensive infrastructure of an airport.

'To reduce noise and pollution, we are using electric engines so it can also be used close to urban areas."

Meanwhile in Germany...



UberCHOPPER Arrives in Las Vegas – Costs \$99

Today, **Uber** surprised us all with the release of **UberCHOPPER** in **Las Vegas** for **CES** (**C**onsumer **E**lectronics **S**how) – an extremely popular annual convention where some of the top tech guru's collaborate and share.

Requesting the service will get you a ride to a heliport at McCarran Airport, and a ~15 minute helicopter flight over the Las Vegas Strip & surrounding area. Uber partnered with Mavericks Helicopters to make this all happen.



♠ > Technology

Uber plans self-flying drone taxis to beat city traffic











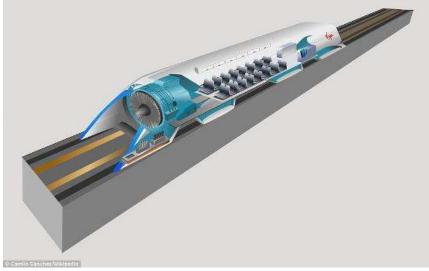
The Ehang 184, a passenger drone credit: EHANG

New Forms of Transportation

Hyperloop One tests high-speed transport propulsion system

Company carries out public track run of prototype that might one day rocket commuters between San Francisco and Los Angeles in a supersonic pod





Hyperloop One tests supersonic transport propulsion system

MACLEAN'S

Ξ

AUTHORS ~

For today's youth, cars no longer represent freedom

Fewer young people are learning to drive. The biggest reason for the move away from driving is the Internet

Kate Lunau

June 5, 2012









Photograph by Kourosh Keshiri

Most Millennials Won't Own A Car In 5 Years, Says Lyft Co-Founder John Zimmer

① 07/08/2015 02:53 am ET | Updated Jul 08, 2015







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HuffPost

Technology

HILEEDUCT



Transportation Revolution

How It Happens

Autonomous Vehicles (Driverless)

New Forms of Transportation

Decreased Automobile Demand

Why We Should Care

Less New Roads

Less Wear on Roads

Logistical Barriers Diminished

Plant Designs

Shipping & Operating Hours

Digital Revolution

Consolidation by Technology

The Interface Is The Relationship

"Trucking is probably the largest outdated industry in the country," - Dan Lewis

"As an angel investor, it's the largest market opportunity I've ever seen, at least since looking at Facebook in 2005," - Hadi Partovi

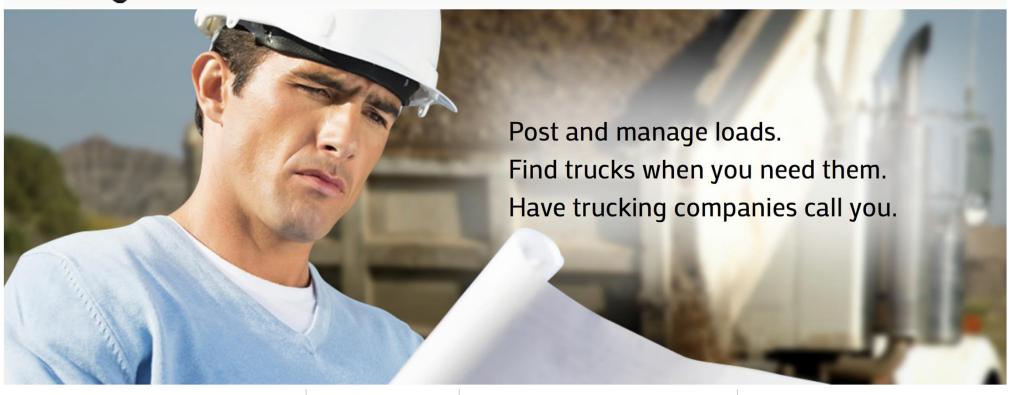






HOW IT WORKS LOGIN

FREE MEMBERSHIP



Find Trucks Instantly

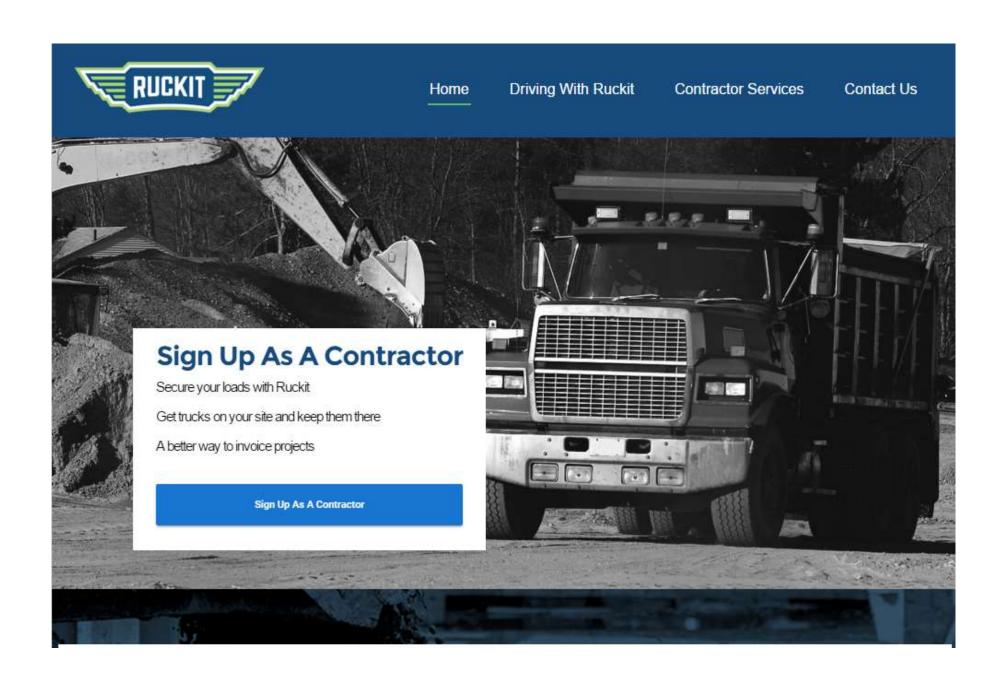
Manage Trucking Needs

Expand Your Options. Strengthen Relationships.

Start Saving Time

NO COST, SIGNUP TODAY! Find Trucks Instantly







ForbesBrandVoice® What is this?

FEB 23, 2016 @ 04:22 PM **139,208** VIEWS

How "Uber For Trucking" Apps Are Driving Change In The Freight Industry





Nearly 70 percent of all freight moved in the United States travels by truck, a haul that totals an eye-popping 10 billion tons each year, according to the American Trucking Associations, a trade group.



The Interface Is The Relationship



"The Interface Is Where The Profit Is"

Vast Supply Systems Are Where The Cost Is

A Thin Layer Interface with a Huge Number of People is Where the Money Is





Shop

Simply go to McGeorgeToyota.com and peruse our entire new and certified used inventory from the comfort of your living room, office, patio or even your """her's basement.

Schedule

Once you've zeroed in on the Toyota you're interested in and made the all-important color selection of truffle mica over beluga brown, click "schedule a test drive." After providing a little information and sending us a photo of your driver's license, one of our McGeorge @ Home specialists will set up a time to bring the vehicle to the location that's most convenient for you.

Who would you like to speak with?



Available for:

voice phone chat















Try

Answer the door and accept the keys. Then, get behind the wheel and take an exhilarating thrill ride around town in what could soon be your new

e traffic laws

Trade

Have a vehicle you'd like to trade in? Great! Our specialist can appraise it on site. If not, no worries. You can still proceed to step 5.

Buy

Love at first drive? We get that a lot. It is, after all, a new or gently used Toyota. That's why your specialist is armed with state-of-the-art mobile technology (ok, so it's just a regular iPad) that allows

The Interface Is The Relationship

DIGITS

E-Commerce Startup Jet Raises \$350 Million, at \$1.35 Billion Valuation



By ROLFE WINKLER Nov 24, 2015 5:44 pm ET

O COMMENTS



Jet.com CEO Marc Lore talking to staff ahead of the company's website launch. THE WALL STREET JOURNAL

It's Jet.com, an online retailer said to possibly rival Amazon, that uses real-time pricing algorithms to give consumers better deals.

It hit a \$1 billion valuation in just four months in 2015.

The Interface Is The Relationship

Worlds largest taxi company owns no taxis. (Uber)



Largest accommodation provider owns no real estate. (Airbnb) (2) airbnb



Largest phone companies own no telecommunications infrastructure. (Skype, WeChat)



Worlds most valuable retailer has no inventory. (Alibaba)



Most popular media owner creates no content. (Facebook)



- Fastest growing banks have no actual money. (SocietyOne) SocietyOne
- Worlds largest movie house owns no cinemas. (Netflix) **NETFLIX**
- Largest software vendors don't write the apps. (Apple & Google)





These Are The Fastest Growing Companies In History

Digital Disruption

Should We Be Worried About These Interface Companies?

Could The World's Largest Aggregates Company own no quarries?

Could The World's Largest
(insert your industry here)
own no
(fill in the blank)?

Um...No...Well...Maybe?

The Interface Is The Relationship



Wednesday February 10, 2016

Breaking News > Featured Breaking > The City > San Francisco News > Transit

Yellow Cab to file for bankruptcy



A Yellow Cab taxi travels down Market Street on Tuesday. Yellow Cab Co-Op announced its plans to file for bankruptcy as competition for riders in The City increases. (Mike Koozmin/S.F. Examiner)

By Joe Fitzgerald Rodriguez on January 6, 2016 1:00 am

Trending Articles

SFPD officers shoot, kill man in Bayview

New plan for M-Ocean View subway line unveiled

SF judge resigns soon after ruling SFPD can't fire cops who sent racist texts

City may pay back businesses sacked by Super Bowl

Amid controversial Super Bowl performances, Mario Woods protestors reiterate demands

Digital Revolution

How It Happens

Digital Consolidation

The Interface Is The Relationship

Why We Should Care

New / Different Competitors

Lose Control of Pricing

Lose Control of Customer

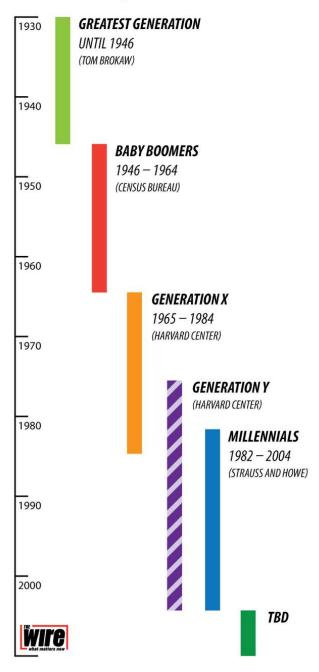
They Think Different

They Behave Different

They Value Different

They're The Doers

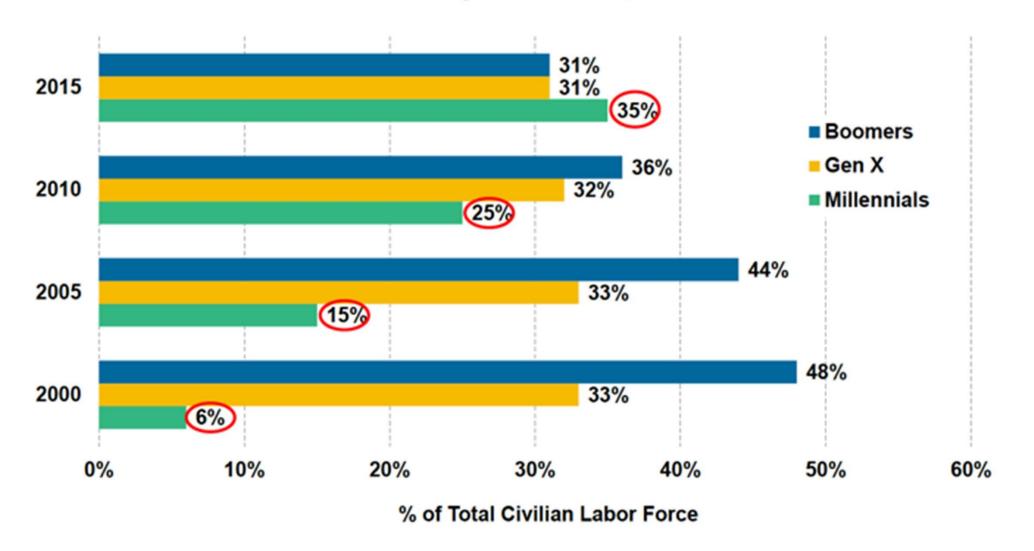
GENERATION, BY BIRTH YEAR



Does anyone know what year the Millennials will become the largest generation in the workforce?

Millennials (Age 15-35) = Largest Generation in Workforce This Year

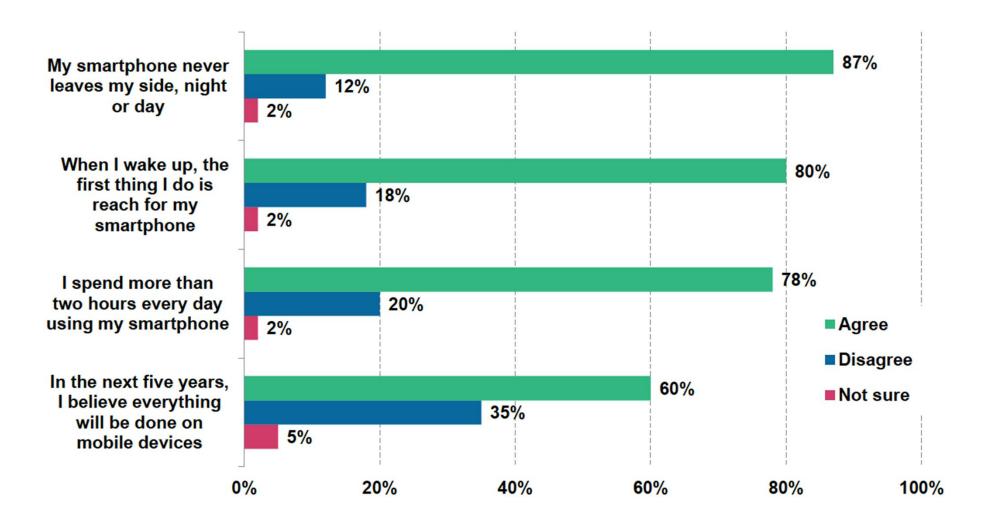
Civilian Labor Force by Generation, USA, 2000 - 2015





Millennials = Love Their Smartphones... 87% = 'Smartphone Never Leaves My Side'

Millennial Smartphone Behavior, USA, 2014





Millennials Expect Flexibility & Like Technology @ Work

Millennials = Expect Flexible Work Hours

- Many = expect to be mobile & work from home / office / cafes at will.
- ~20% = identify as 'night owls' (often work outside normal business hours).
- 38% = freelancing vs. 32% among those over 35 years old.
- 32% = believe they will be working
 'mainly flexible hours' in future.

'Millennials at Work: Reshaping the Workplace," by PWC, 2011, Global.

Millennials = Tech Savvy

- 34% = prefer to collaborate online at work as opposed to in-person or via phone (vs. 19% for older generations).
- 45% = use personal smartphones for work purposes (vs. 18% for older generations).
- 41% = likely to download applications to use for work purposes in next 12 months & use their own money to pay for them (vs. 24% for older generations).



There's a construction worker shortage.

While the economy rebounds and the projects roll in, Baby Boomers are leaving but Millennials (born between 1980ish and 2000ish) aren't taking their place.

THEORIES I FOUND ONLINE

They crave financial stability, and construction work is largely seasonal.

They value formal education, and construction is an apprentice-based profession.

They want flexible schedules, and construction is a 9-5 (or, let's be honest, a 7-6) job.

Having trouble hiring Millennials?

Make Sure You Have An Online Presence.

Millennials want to learn about your company from your website and stay connected through social media (Instagram, Twitter, or Facebook)

You May Need To Relax Your Rules

56% of Millennials wouldn't accept a job from a company that bans social media. Instead, encourage them to use it to promote your company. If you're small enough, maybe you can solve two problems by enlisting a younger employee to run your social media.

They are straight up lost without technology.

53% of Millennials would rather lose their sense of smell than their technology.

Tech is an integral part of their life.

They cannot remember a day when their mobile device was more than an arms reach away.

Deny them their tech and they will resent you.

Neglect a digital presence and they'll ignore you.

Are We Going To Be Able To Attract Millennials To Come Work For Us?

Are We Going To Be Able To Attract Millennials To Come Buy From Us?























... These Companies Are Shaping Their Expectations...

...How Are We Shaping Them?

How It Happens

They Think Different

They Behave Different

They Value Different

They're The Doers

Why We Should Care

We Aren't Ready For Them

Will They Work For Us?

Will They Buy From Us?

Will They Prefer Us?

Over 50% of the world's population is under 30 years old.

More people own a mobile device than a toothbrush.

Each day 15% of the terms typed into Google have never been searched before.

(KNOWLEDGE IS NO LONGER POWER, BECAUSE EVERYONE HAS ACCESS TO IT)

The LinkedIn age limit has been lowered to 13.

(SO DID APPLE FOR WWDC)

The average person has a 0:07 attention span vs the 0:08 average attention span of a goldfish.

We Don't Know How These Three Factors Will Play Out

We Do Know That The World Is Changing... DRAMATICALLY.

What Are You Doing Today To Get Ready For Tomorrow?

That's All I Got

Thank You.

