

The Big AHA

How to Future-Proof
the Insurance Industry Against
Tomorrow's Trends, Today.

@jackuldrich

Jack Uldrich
ACLI—Sea Island
March 19, 2018

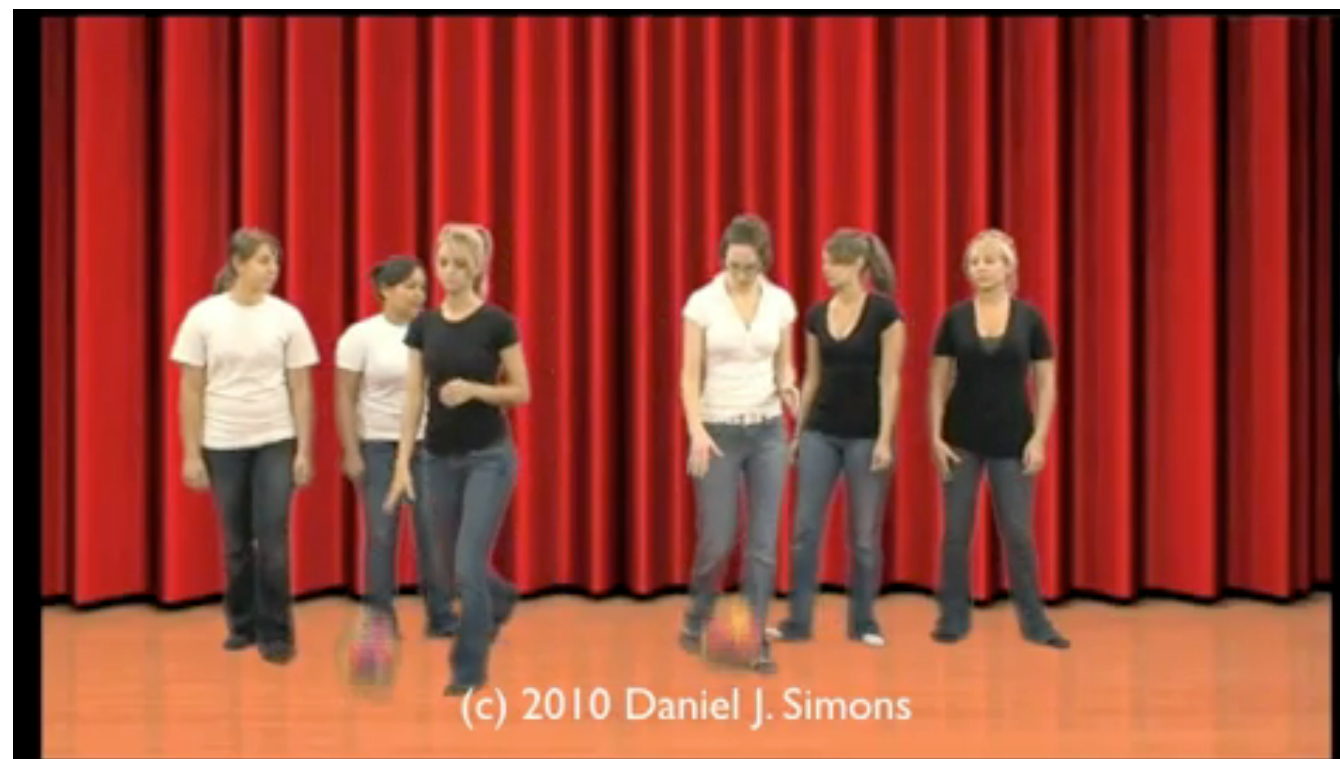
Jack Uldrich
@jackuldrich
www.jackuldrich.com

A Awareness

H Humility

A Action

The Big AHA =
Awareness
Humility
Action



**Let's rewind and
watch it again**

Awareness



1900 ... 1 automobile in NYC



13 years later ... the move to automation was nearly complete.

We poised to live thru a similar transition ... if you don't want to be in the horse trade, you will need to unlearn many things about the life insurance business.

Most standard processes and tasks will executive by systems that are data driven, cognitive and automated

“The insurance brands we know today came of age in the era of the horse-drawn carriage.”

—Daniel Schreiber, CEO & Co-Founder, Lemonade



**The world is
changing fast.**





March 17, 2018: PwC just began a service to audit Blockchain projects



Simplify the on-boarding process

TORONTO, Feb. 7, 2018 /CNW/ – Sun Life Financial Inc. (TSX: SLF) (NYSE: SLF) ("Sun Life") today announced that it is the first North American insurer to collaborate with SecureKey Technologies Inc., a leading provider of identity and authentication solutions using Blockchain technologies. This collaboration will make it even easier for Clients to do business with Sun Life, enabling them to conveniently and securely share identity information using other trusted providers, such as banks, telcos and governments.

"As part of our relentless focus on making it easier for our Clients to do business with us through new digital capabilities, we are proud to team up with SecureKey to offer an even more simplified online experience," said Mark Saunders, Executive Vice-President & Chief Information Officer, Sun Life Financial. "As we take the next step along our digital transformation journey, we'll soon be able to streamline and simplify the onboarding process for new Clients by using SecureKey's permission-based tools and Blockchain security to instantly verify personal information."

Sun Life expects to introduce this technology to its Clients in Canada in the coming months. Some of the benefits include:

- Blockchain based solutions designed to make it easier for Clients to share their credentials in an efficient and secure way.
- Seamless and real-time identity verification process for new Clients to streamline digital offerings.
- Quick and easy data updates to information, enabling sharing of the most current, verified Client data.



Feb 7, 2018: Musk launches Tesla into space



Why is this important?

It will radically lower the cost of putting satellites into space.

Which, in turn, will facilitate a future for autonomous vehicles



Now a commercial product in 2018!

Translate 40 languages!

Do business in more than 60 countries?

Implications for CIO's? Massive!



October 5, 2017

Translate 40 languages!

Do business in more than 60 countries?



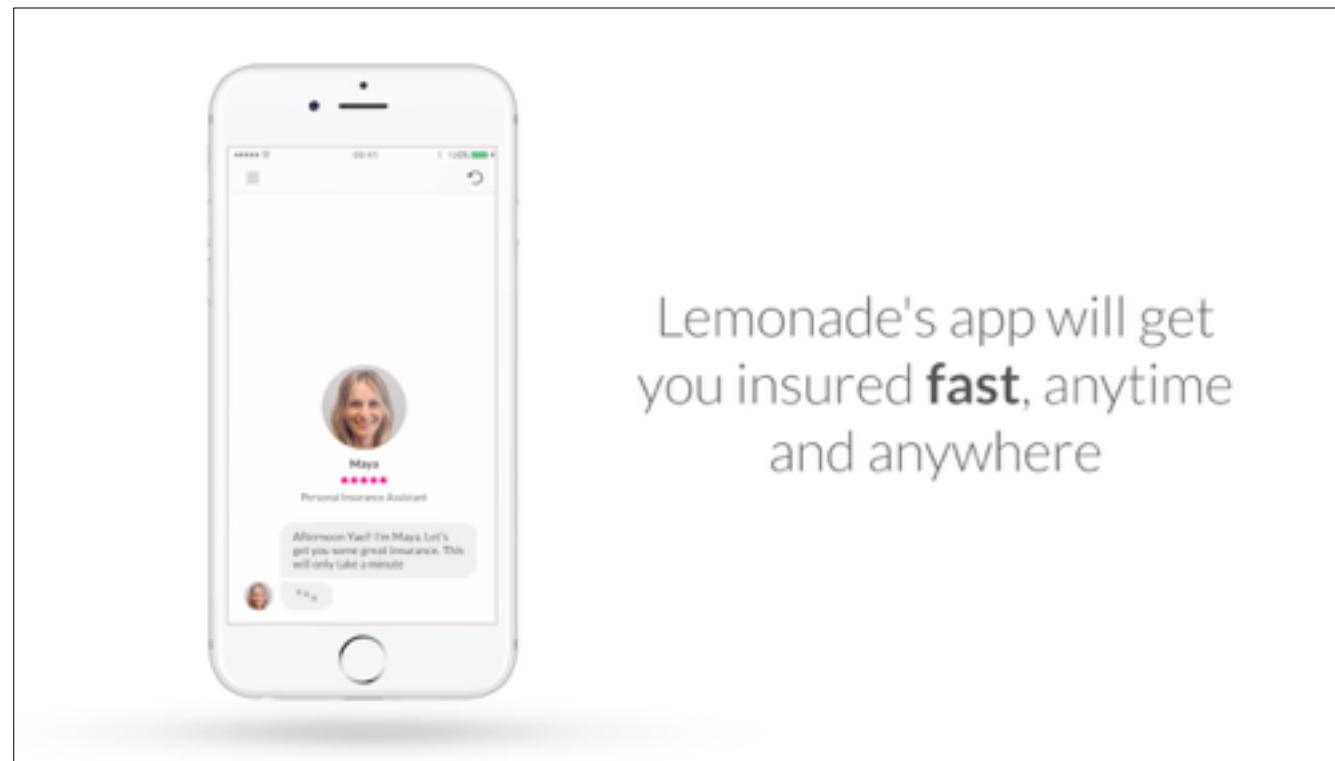
Allianz invested \$97 million in BIMA in December 2017 (Ghana, Sri Lanka, Pakistan, Bangladesh)

60 cents a month



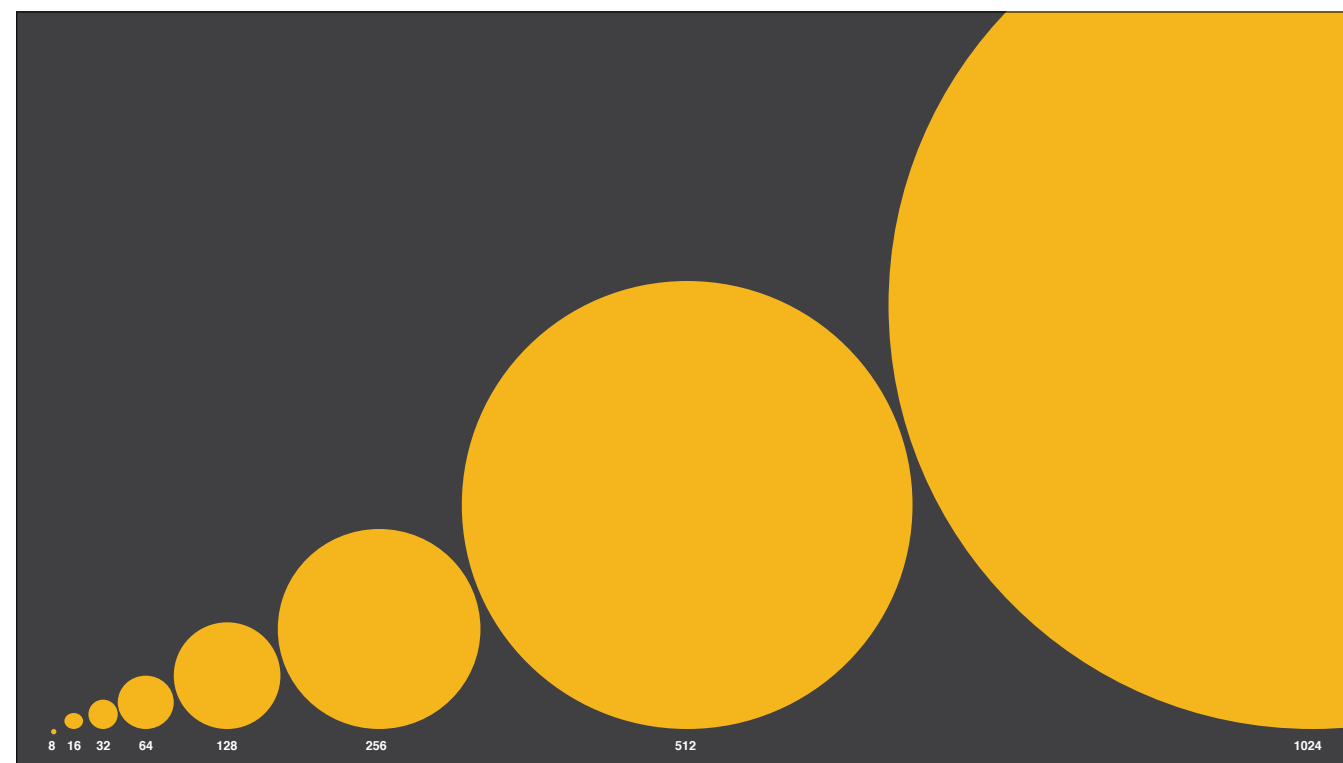
Trend #1: Wireless/Bandwidth/Mobility

5G will allow society to operate in different ways. Are you prepared?



December 2017: Lemonade received \$120 million in funding

1 Thousand
1 Million
1 Billion
1 Trillion
1 Quadrillion





Here is an example of 1000-fold growth that you have lived through.

Here are seven additional trends that are about to experience 1000-fold growth ...





Trend #2: Augmented Reality

In the near future, it will be as those we are living in the Internet!

How can PEH “be essential” in this future?



Toronto-based ModiFace, which creates augmented reality technology for the beauty and medical industries, announced a partnership with **Dai-Ichi Life, Japan's largest insurance company.**

The company is leveraging ModiFace's facial tracking technology to create a "health promotion" app which can simulate aging, anti-aging, and weight simulation on a user.

Over 50,000 facial images are used to analyze a user's face and show their age progression based on the parameters of their own skin. By evaluating current wrinkles, moles, and other skin characteristics, the application uses science to simulate how these features change over time.

"After looking into options on face-based augmented reality, Dai-Ichi realized that by far, the leading company (largest patent portfolio, deep skin visualization experience including working with many medical companies and dermatologists) in this area was ModiFace. Dai-Ichi then approached ModiFace for engaging in this partnership," said Parham Aarabi, CEO of ModiFace.

ModiFace has previously partnered with companies in Asia, including Japan's IPSA cosmetics brand, LOFT beauty retailers, and Laneige, a Korean prestige beauty brand. In 2016, ModiFace partnered with Sephora to bring ModiFace's AR technology to their online and retail stores in Asia-Pacific countries. In the same year, ModiFace hired permanent sales teams in both Japan and Korea, with the goal of reaching and servicing new brands in the Asia-Pacific region.

"Asia has been an area of exceptionally active growth, driven by innovative brands willing to try new augmented reality technologies and savvy consumers willing to adopt and utilize them. This combination has created a perfect storm for the incorporation of impactful AR technology," said Aarabi.

ModiFace has made a number of developments in the beauty industry, including the release of a makeup brand-matching chatbot on Facebook Messenger in 2016.



Trend #1: Bandwidth

4G ... 1400-fold faster

5G ... 100X faster than 4G (Download movies in second vs minutes)



Trend #2: Augmented Reality

Implications for providing customers information in innovative ways that may change their behavior!



Trend #2: Additive Manufacturing/3D printing

Video released Nov 27, 2017

Exponential ...

5000: 2017

100,000: 2018

500,000: 2019



Anthony Atala ... Wake Forest ... 3D print entire fully functional kidney's ... what happens to diabetes?



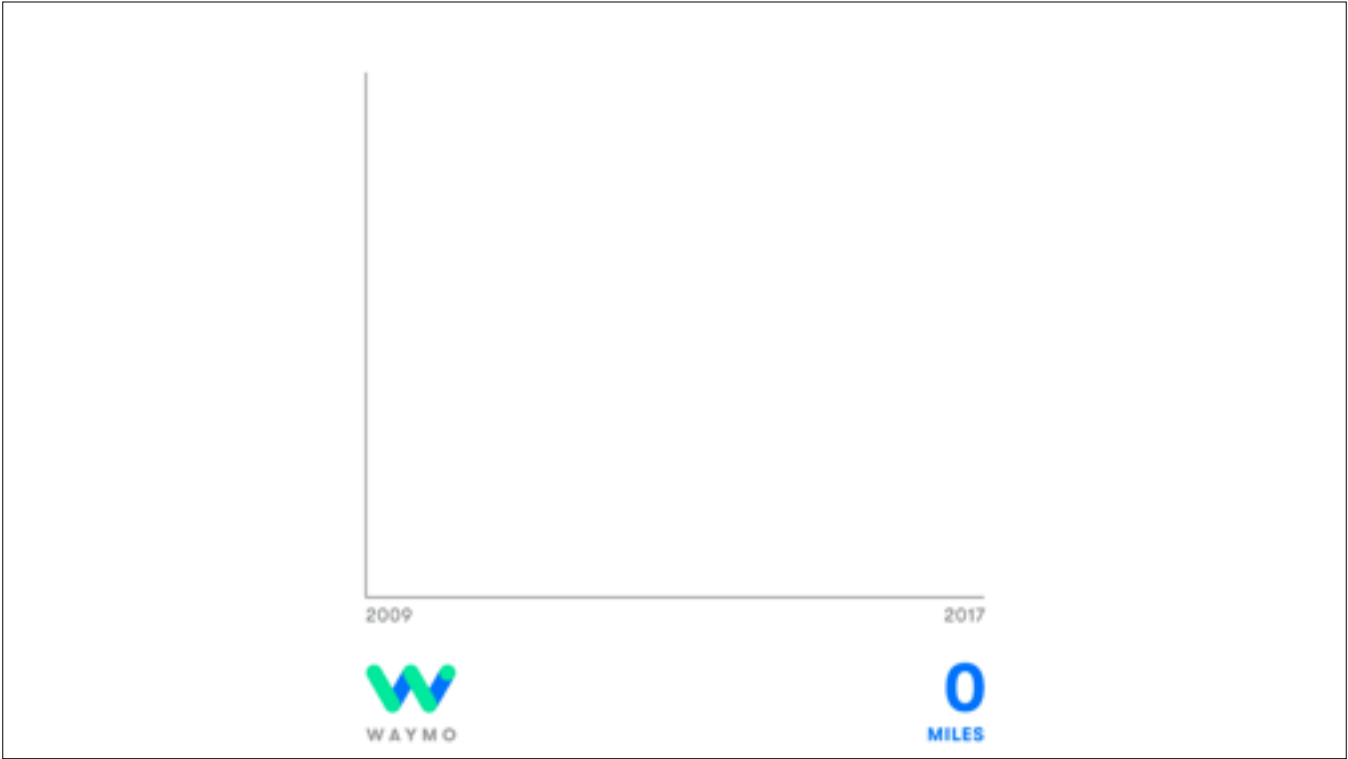
the 1964 Mustang as an analogy



Embark: LA to Jacksonville —2,400 miles on Feb 6, 2018



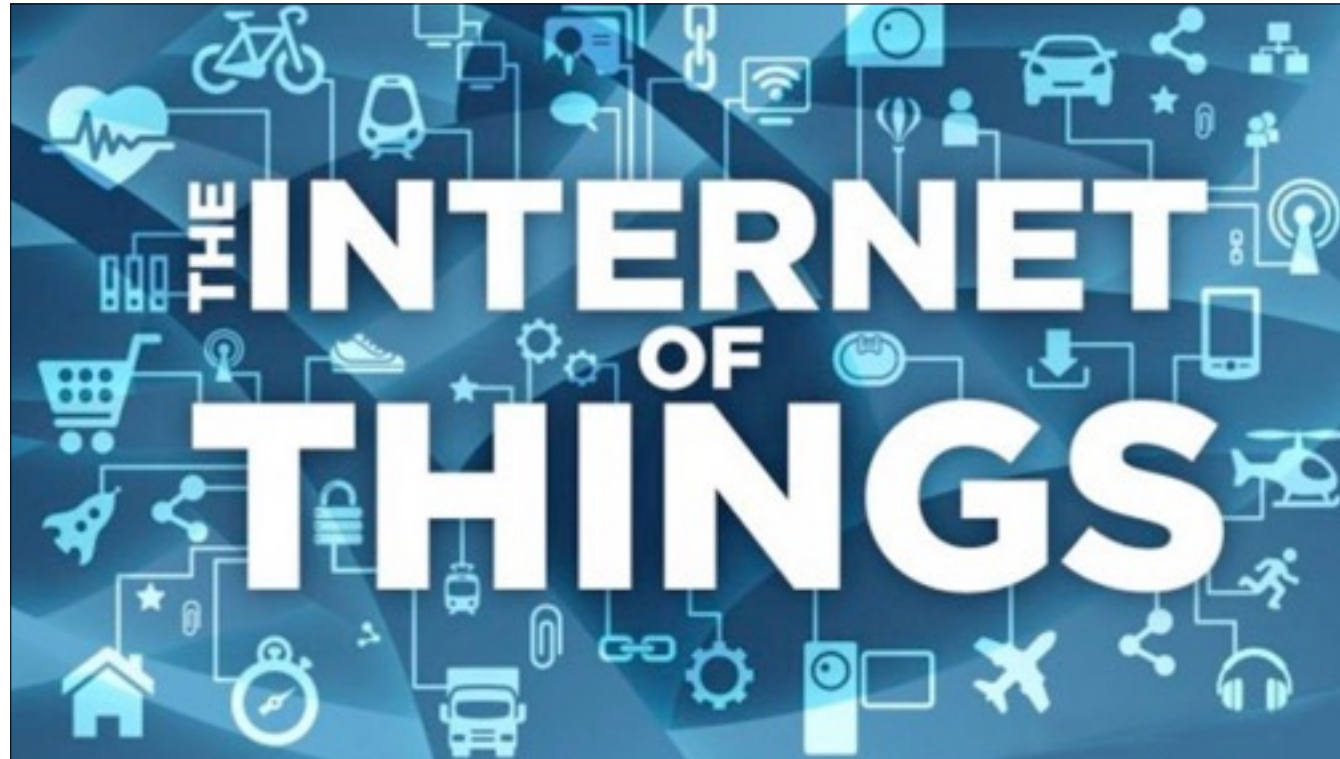
A self driving truck transporting self driving cars!





Trov is now partnering with Waymo to insurance passengers in driverless cars

Underwritten with \$45 million from Munich RE



Trend #6: M2M, Industrial Internet, Internet of Everything,

The extension of the Internet to the physical world.



November 2017: FDA approves first digestible pill



Savings:

Deloitte's HQ in Amsterdam. World's smartest building—houses 2,500 people but only 1,000 offices.

The greenest building in the world

All told, the Edge is packed with some 28,000 sensors.

App knows individuals preference for lighting and heating

Makes best of humans!

“Hot design” ... 2500 workers but only 1000 desks

“We think we can be the Uber of buildings,” says Coen van Oostrom, chief executive officer of OVG Real Estate, the building's developer. “We connect them, we make them more efficient, and in the end we will actually need fewer buildings in the world.”



Connected Care — State Farm



Trend #7: Genomics



23andMe ... 10 genetic diseases for \$99

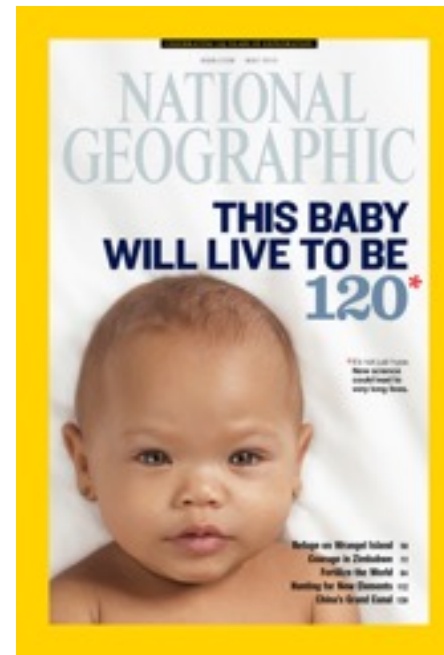
Determine which drugs will work on you

Also determine how fast you metabolize drugs



Where we are headed by 2020: Gene editing/CRISPR

RNAi interference (turn off genes) & gene therapy (add genes)





Trend #8: Artificial Intelligence/computer processing power

January 2017

Artificial intelligence ... “the most disruptive technology since the industrial revolution.”

“The new electricity”!

Merrill report ... add between \$14–\$33 trillion

Accenture says AI has the potential to grow global economy by 4.6% annually by 2035!

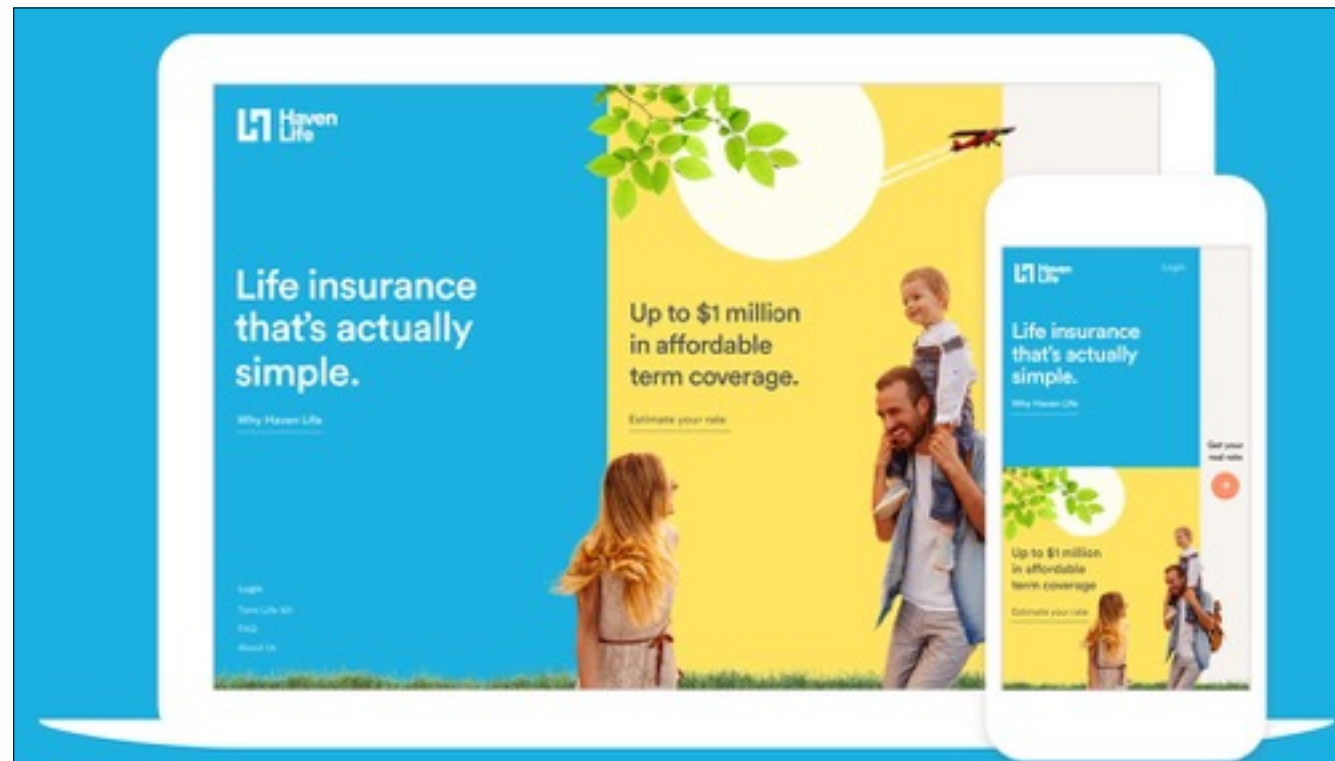
IBM Watson ... 80 trillion calculations per second



October 21, 2017

Running millions of game simulations against itself, it took 40 days for it to learn--from scratch--how to beat the World champion version of itself. That is truly game-changing, not only for Go, but also for how new knowledge is discovered. How accurate or complete is your domain expertise? There's a lot more to discover, is what this fascinating experiment in learning with Alpha Go Zero is telling us.

"The idea of Alpha Go is not to go out and defeat humans, but actually to discover what it means to do science--for a program to be able to learn from itself what knowledge is," according to Silver in a YouTube post about the achievement.



Can a life insurance company look at the same data every other rival has and come up with different insights? That's the goal of Haven Life, which is using artificial intelligence to offer decisions on applications in real time.

Life insurance runs on actuarial data, which makes a guesstimate how long a person will live. This life and death data is needed so life insurers can manage risks.

To date, obtaining life insurance has been a bit of a pain because it requires a medical exam, some blood and a bevy of medical history questions. Haven Life, a unit of MassMutual, aims to streamline the process, said Mark Sayre, head of policy design at Haven Life.



Trend #9: Big Data



Artificial intelligence



Everything



January 29, 2018: Amazon, JP Morgan, Berkshire Hathaway ... new healthcare partnership.

Bezos ... **“We will bring a ‘beginner’s mind’ to the healthcare arena.”**

Jan 22, 2018. Customers expectations are about to change.

Convenience, ease, etc.

What will your customers expect from Pfizer Canada. Their definition of “essential” is about to change.



Jan 4, 2018: Kohler's new smart fixtures make Alexa your bathroom buddy



What two colors are the yield sign?







Just as yield signs are yellow and black anymore ... either are taxis



Trend #10: Sharing Economy/Collaborative Economy

The network effect/the platform effect



The average drill is used for 13 minutes ... why not share?

People will have more money for insurance!

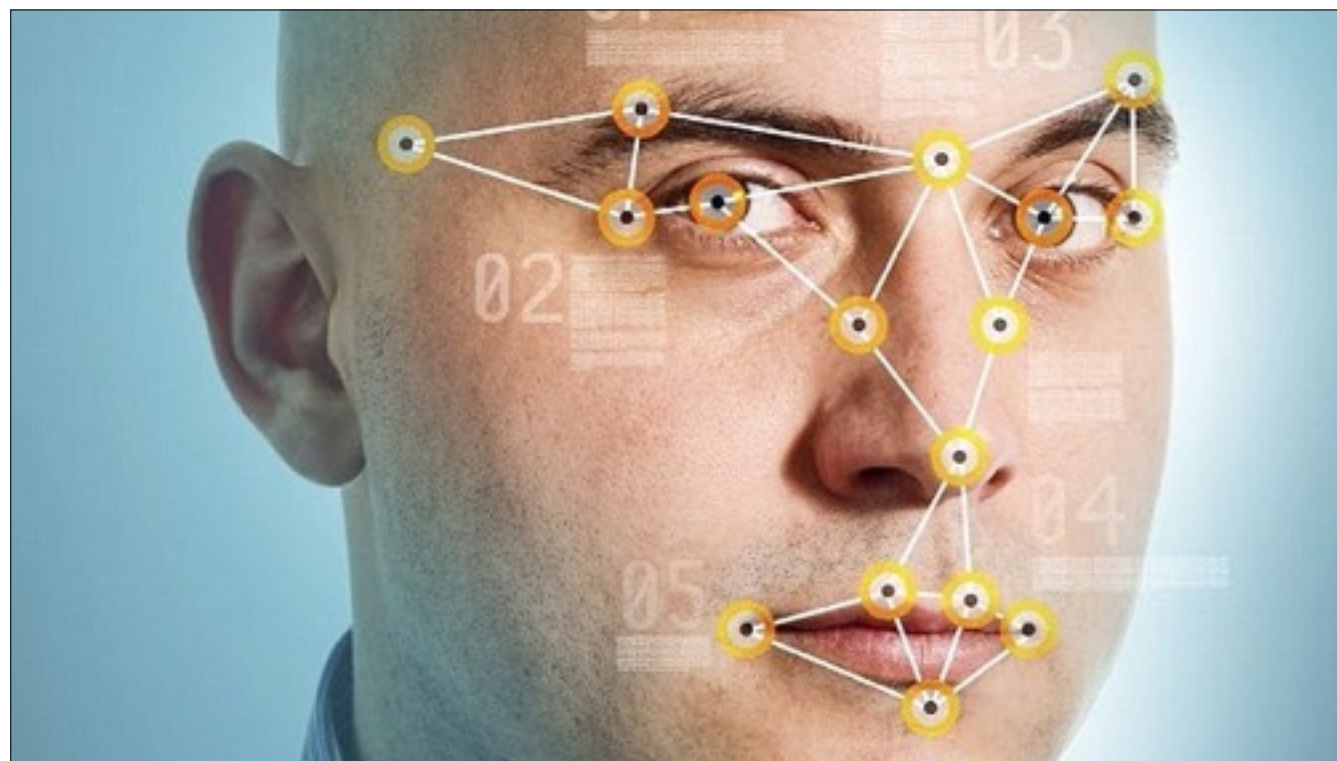




A short segway into how our world has changed. What is a “digital native”.

Let me explain ...







**Smoking is going to be written on
your face. Even if you stopped
smoking, once it's written,
it's there.**

Lapetus Solutions cofounder Karl Ricanek jnr



The cost of not having humility



THE BIGGEST LEAP IN COMPUTING EVER.

QUARTZ

March 7, 2017





Trend #11: Virtual Reality

Grandma watching Jurassic Park



The Genworth Aging Experience is a virtual reality exoskeleton that can help the wearer experience aging, for example, by creating tinnitus, vision problems (macular degeneration), and pressure of the joints to simulate arthritis.



Get a reverse mentor



DIFFICULTY: MEDIUM

WHAT IS THE NUMBER OF THE PARKING SPOT
THE CAR IS PARKED IN?





What about Twitch?

In January of 2018, more people watched things on Twitch than CNN!

Gamification?



Have you been paying attention?

Another little test ...





To future-proof your insurance business you must ... think!!!!

FINISHED FILES ARE THE RE-
SULT OF YEARS OF SCIENTIF-
IC STUDY COMBINED WITH
THE EXPERIENCE OF YEARS.

A little test for why Big Data will require humility.

FINISHED FILES ARE THE RE-
SULT OF YEARS OF SCIENTIF-
IC STUDY COMBINED WITH
THE EXPERIENCE OF YEARS.

If you use the data to “see” new opportunities, TD Bank can benefit immensely.



Think week

1. Friday @ 4:45 pm
2. unplug / shutdown
3. 15 minutes
4. think about the future



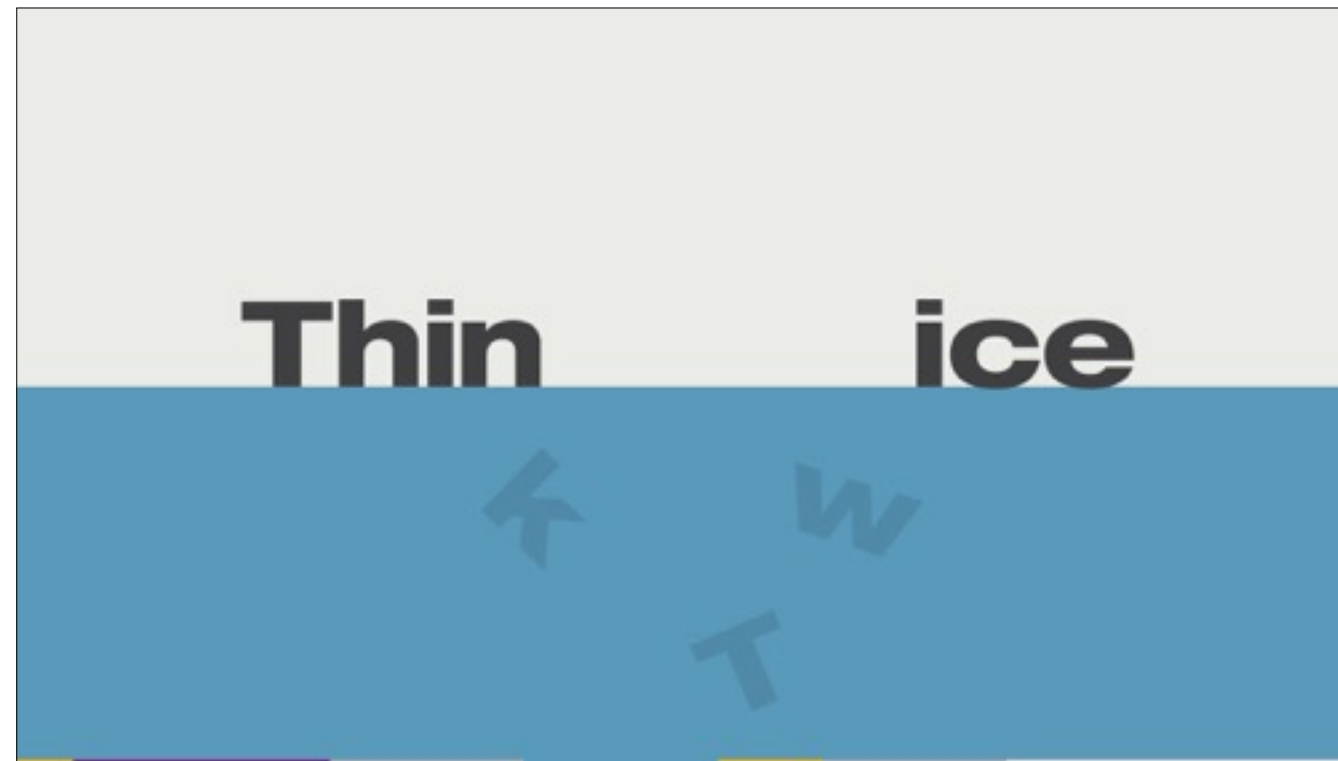
LIMRA establishes a Blockchain Advisory Council (August 2017):

1. Lower administration costs
2. Lower processing costs
3. Real-time validation and resolution
4. Simplify onboarding



Think Twice

Think Twice ... you might be on “thin ice”



Think Twice ... you might be on “thin ice”



INDUSTRIES RIPE FOR
DISRUPTION BY THE BLOCKCHAIN

Trend #12: Blockchain



Why not? Millennial mindset + Blockchain + Data + AI

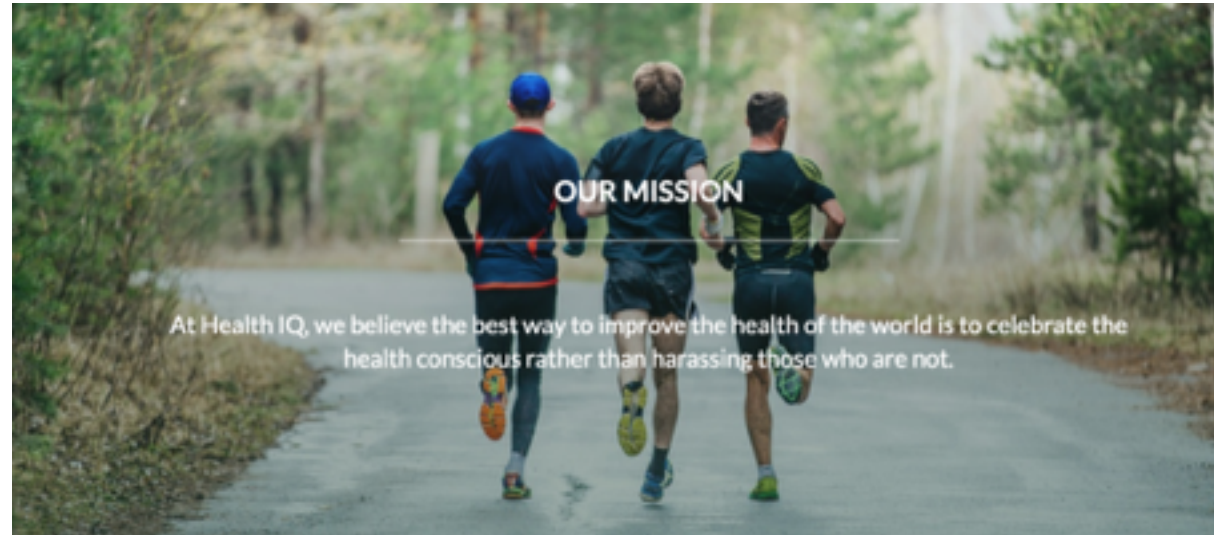




5G will be a “phase change” ... it will enable augmented and virtual reality



October: Tesla partnering with Liberty Mutual to offer “InsureMyTesla” ... 90% discount?



Health IQ ... \$34 million in VC funding including some from New York Life Ventures

Thinking is trying to think the
unthinkable: thinking the thinkable
is not worth the effort.

— *Helene Cixous* —



Google's (Alphabet's) new company to keep you healthy!

Big implications for ACLI's member companies ...



Gene editing
Biotech
Synthetic biology
Stem Cell research
Regenerative medicine
Brain related research

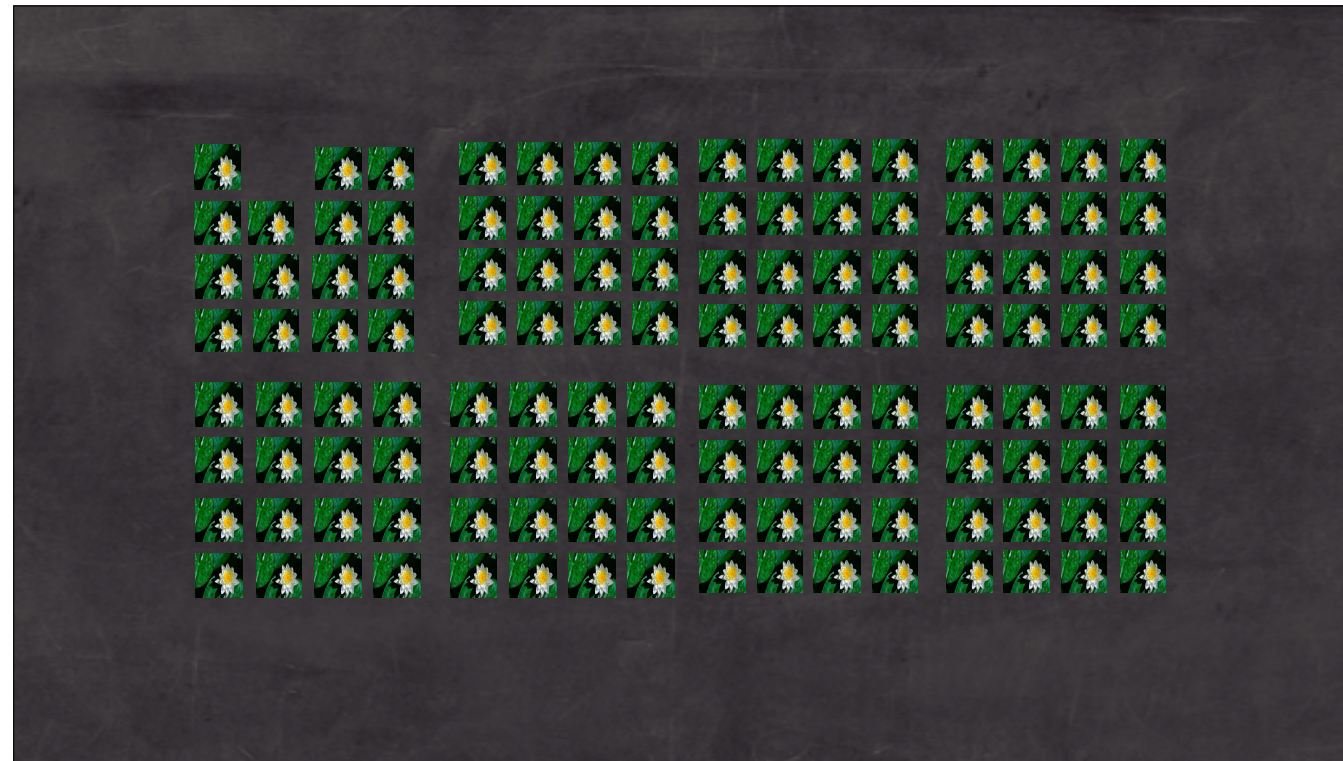


Question:



Why the future will arrive sooner than you expect.

Here is a simple analogy that explains why.



If a lilly pad doubled every day for a month, on Day 20 how much of the lake would be covered?

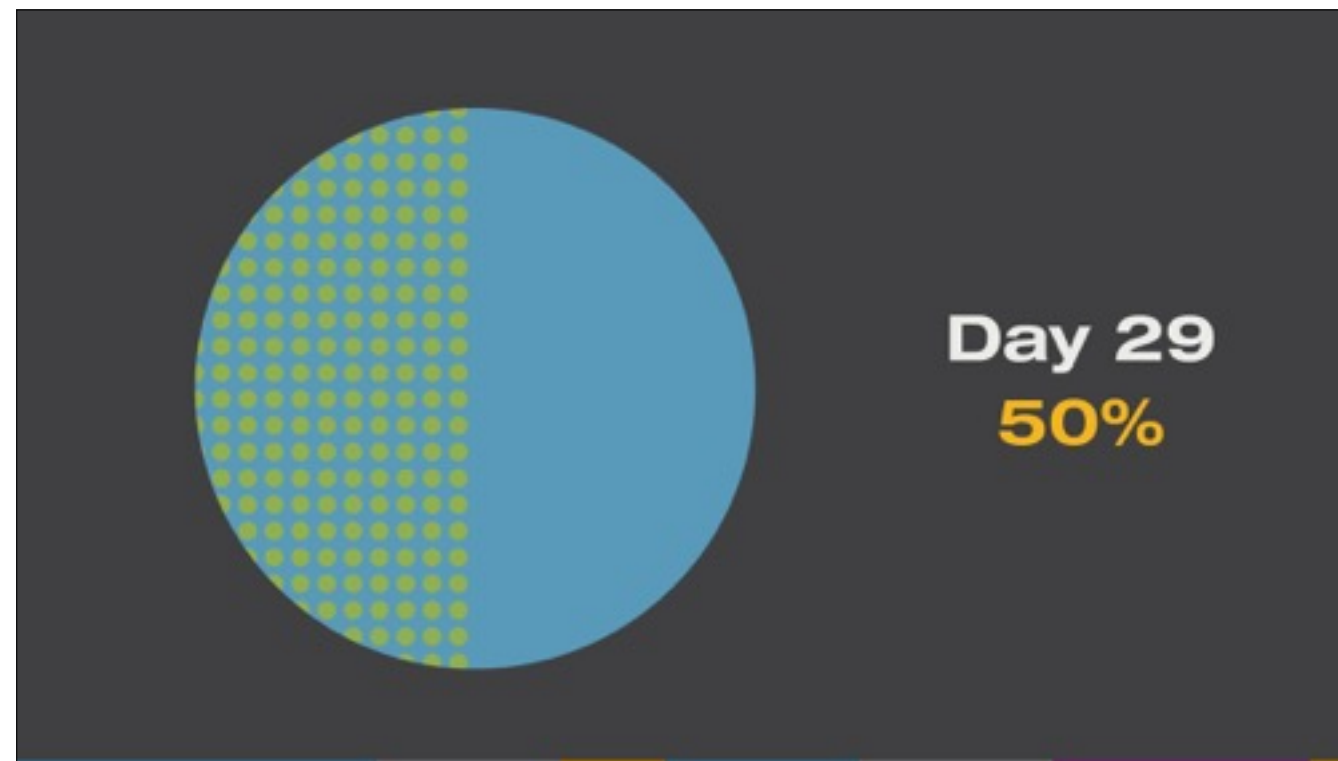


20 doublings only cover .1% ... but what happens over the next ten days is amazing:

Day 20: 0.1
Day 21: 0.2
Day 22: 0.4
Day 23: 0.8
Day 24: 1.6%
Day 25: 3.2%
Day 26: 6.4%
Day 27: 12.8%
Day 28: 25%
Day 29: 50%
Day 30: 100%



Day 20: 0.1
Day 21: 0.2
Day 22: 0.4
Day 23: 0.8
Day 24: 1.6%
Day 25: 3.2%



Day 26: 6.4%
Day 27: 12.8%
Day 28: 25%
Day 29: 50%



Day 30: 100%



But Atlantic Trust will future-proof itself. Here's the proof ...



But, remember, the future will be stranger than we can imagine ... so keep an open-mind and an active imagination.





The Best Way to Predict the
Future is to Create It.