
DISRUPTION: PAST, PRESENT AND FUTURE

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September 29, 2016



The Graduate (1967)

“One Word: Plastics”





PAST

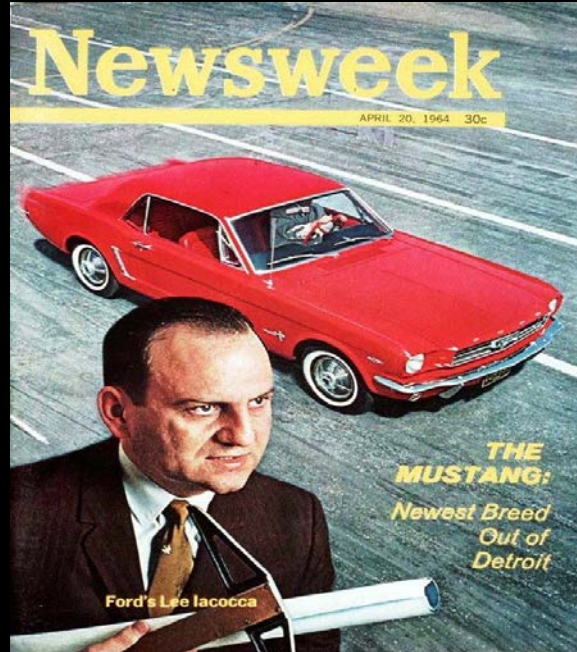
BOOM TOWN: DETROIT IN THE 60s



BIRTH OF THE MUSTANG



Lee Iacocca
Former Chrysler Chairman
Former Ford President



THE NEW YORK TIMES FRIDAY, APRIL 17, 1964

**The Unexpected
...here today!**

New Ford Mustang—\$2368* f.o.b. Detroit
(and we're not fooling!)

This is the car you never expected from Detroit. Mustang is so distinctively beautiful, it has received the Tiffany Award for Excellence in American Design, the first automobile ever to be so honored by Tiffany & Co. Mustang brings you the look, the fire and the flavor of the great European road car. Yet Mustang is as American as its name—as practical as its price—just \$2368* f.o.b. Detroit. That's the suggested retail price for a completely equipped standard Mustang Hardtop (shown above).

\$2368* f.o.b. Detroit includes luxury features either not available or available only at extra cost in most other makes of cars:

- Deep beam bucket seats
- Padded instrument panel
- Full wheel covers
- Color-keyed all-steel interior
- Color-keyed wall-to-wall carpeting

\$2368* f.o.b. Detroit also includes these features when using your in-store cash:

- Sports steering wheel
- Cigarette lighter
- Glass lens light
- 2 automatic courtesy lights
- Floor-mounted legend dial

\$2368* f.o.b. Detroit also includes these features standard equipment:

- 30-day or 4000-mile service schedule
- Wiper-wash (over bumper with bumper guard) lens and tank
- 1000-mile oil pan
- Heater (interior and/or exterior)
- Front seat belts
- Parallel Action windshield wipers
- Safety Side-Door Locks
- Self-aligning tie rods
- 27-hp. 161-cu. in. engine

\$2368* f.o.b. Detroit is the suggested retail price. Distribution charges, taxes, license, options, color and local costs, not included, if any, are extra. While inventories last see 133-36-36.



BIRTH OF THE MUSTANG



COMPETITIVE THREAT

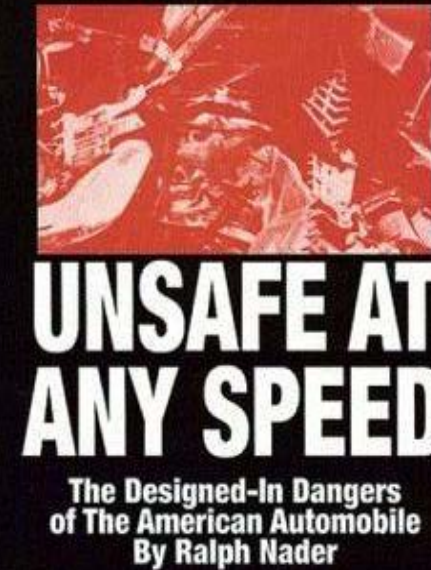
**Volvo invented the world's first
3-Point Safety Belt
in 1959.**

**Then Volvo gave the
invention to the world
for free.**

Nils Bohlin,
Gotenburg, Sweden, 1959



**1959 GERMAN VOLVO ENGINEER CREATES
THE SAFETY BELT**



**1965 "UNSAFE AT ANY SPEED"
CHANGES THE AUTO INDUSTRY**



Odd-Even Plans Returning As Iran Gas Crunch Mounts

By PETER J. BERNSTEIN

WASHINGTON — Odd-even gasoline rationing may be just around the corner in many states because of the increased likelihood of new oil shortages resulting from turmoil in Iran.

Tomorrow, California will become the first state to resume the odd-even system statewide.

In the East, at least four states — New York, New Jersey, Connecticut and Maryland — have contingency plans ready if officials detect new shortages of gasoline.

In New York, energy officials say Gov. Hugh Carey could reimpose odd-even rationing as a conservation measure even before long gas lines or other signs of shortages appear.

And in New Jersey, state officials say Gov. Brendan Byrne may reinstitute some form of rationing in response to President Carter's recent appeal to gov-

As long as production remains at current levels, Lichtblau says, there's a "tenuous supply-demand balance" in the world. But a cut in Iranian output could trigger a worldwide scramble for oil similar to the one that preceded last spring's gas lines.

So far, there isn't any hard evidence that Iran is planning to cut production, U.S. energy officials say.

But the Carter administration, emphasizing the uncertainty of the situation, is taking advantage of the crisis abroad to gain support at home for its conservation goals.

One U.S. official said the United States will have an oil reduction in 45 to 50 days — after the last tankers arrive from Iran — of 700,000 barrels a day of crude oil.

He said there must be "an early and permanent" effort to reduce energy consumption and eliminate waste.

percent alcohol — to equal 10 percent of the nation's total unleaded gasoline consumption. Currently, it equals less than 1 percent.

However, the view is growing both in and out of government that far sterner measures may be needed to cope with the oil crisis.

Many experts maintain there will be further disruptions of the world's oil supply.

The ferment in Iran, which could degenerate into anarchy or civil war, might impair that nation's ability to produce any oil.

Turmoil in Iran also could spread to other oil-producing states in the Middle East. Although production has been running at high rates, a number of these Middle Eastern countries — including Saudi Arabia — have suggested they might cut down.

Meanwhile, the chaos in Iran is

石油危机对美国车的重创，
让像思域一样的省油日本车
大举攻入北美市场并站稳脚。



1970s FOREIGN COMPETITION —
FUEL EFFICIENT CARS

1973 OIL CRISIS



PRESENT

INNOVATION IS CENTERED IN...



 California

RISE OF THE ATM AND A TECHNOLOGY PIONEER AND LEADER RISES FAST IN THE FINANCIAL SERVICES INDUSTRY

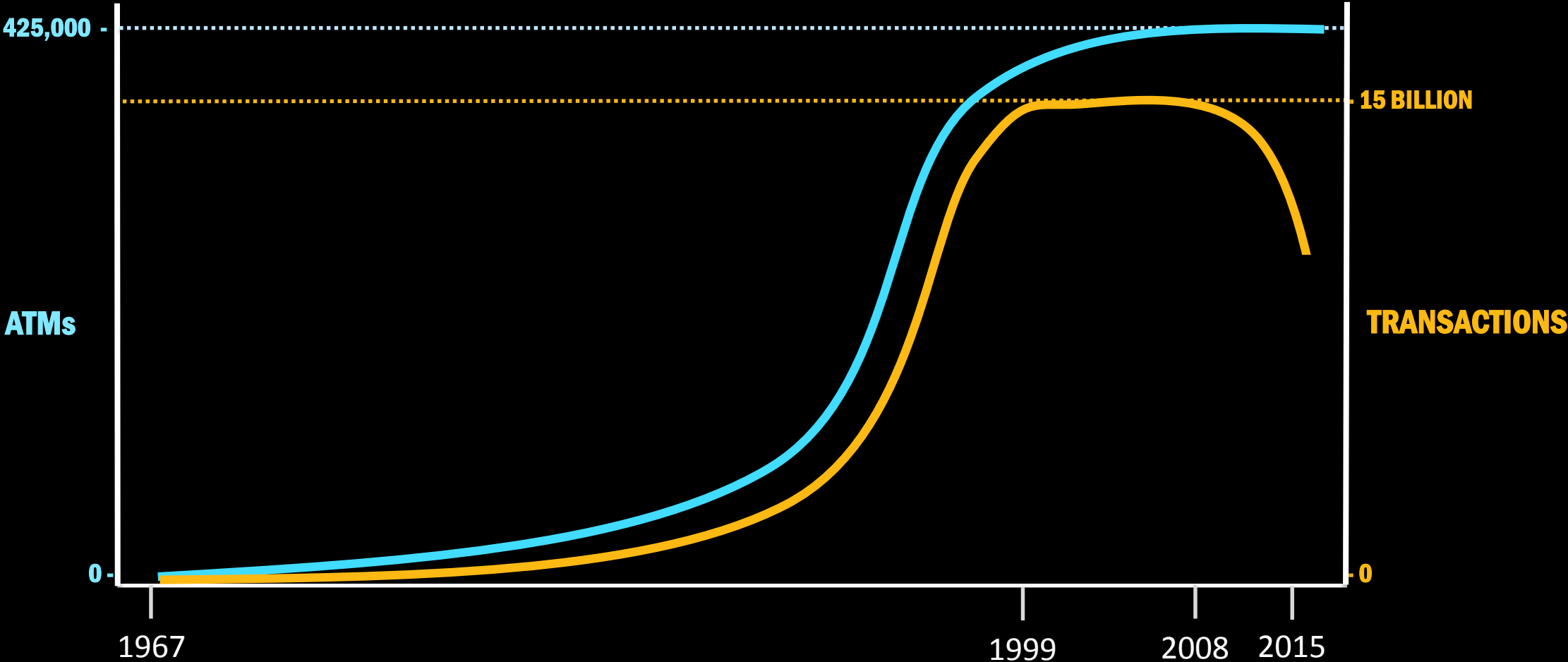


John Reed

Former CEO of Citigroup
Chairman, Massachusetts Institute of
Technology Board of Trustees



ATM GROWTH AND USAGE IN THE US PLATEAUS



Source: CreditCards.com

SMARTPHONE AND APP INNOVATION OBVIATES NEED FOR CASH

FOR



INNOVATIONS IN TECHNOLOGY REPLACE MOST ATM FUNCTIONALITY

WHAT WAS ONCE YOUR STRATEGIC ADVANTAGE CAN BECOME YOUR ALBATROSS

- **ATM transactions are declining, and the number of ATMs have plateaued.**
- **These firms have collectively 81,000 ATMs at a conservative annual operating cost of approximately \$1 billion.**



The image features a central globe with a blue and purple color scheme, set against a background of binary code (0s and 1s) and circuit-like patterns. The globe is surrounded by a semi-transparent digital dashboard. On the left, there are sections for 'REGRESSION' with a dropdown menu set to 'VARY', a small globe icon, and a line graph. On the right, there's a 'D-DATA' section with a circular gauge, a 'COUNTS' display showing '542', and several control buttons with up and down arrows. The word 'FUTURE' is prominently displayed in a bold, black, sans-serif font across the middle of the globe. The overall aesthetic is high-tech and data-driven.

FUTURE

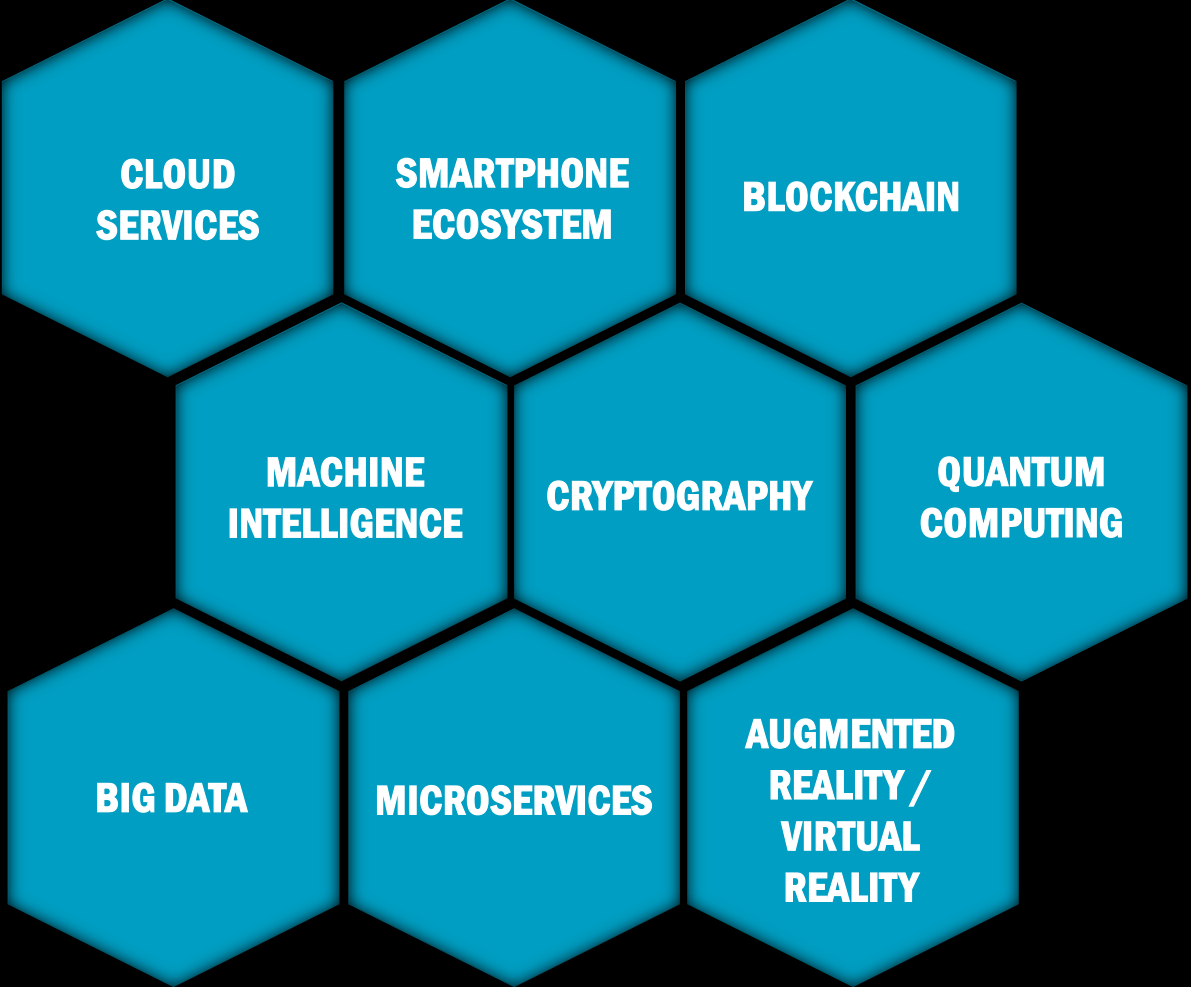
BOOM TOWN: THE WORLD



Identify the landscape

TECHNOLOGY TRENDS SHAPING FINANCIAL SERVICES

Innovations Advancing The FinTech Landscape



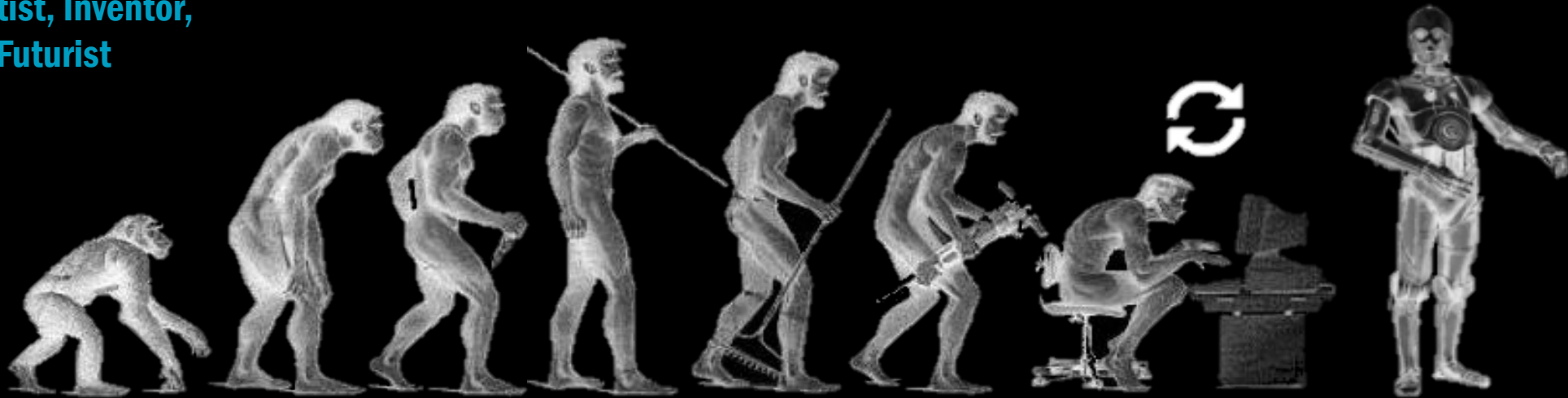
**Be aware of exponential improvements
in technology and their application
to your industry**

SINGULARITY IS NEAR



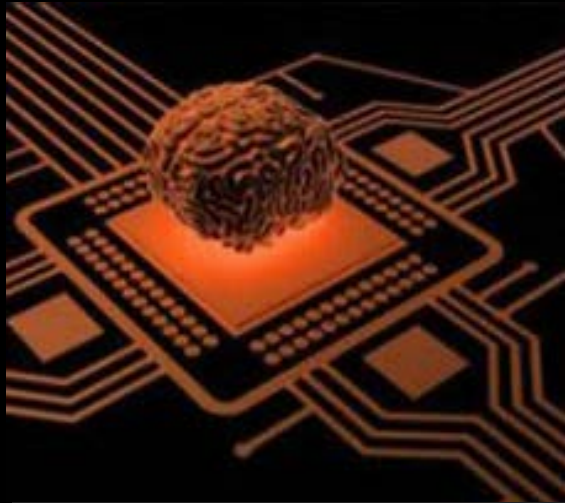
Ray Kurzweil
Scientist, Inventor,
Futurist

- **Law of Accelerating Returns** is the reason why information technologies grow exponentially, and they'll not only impact businesses but what makes us human.
- Information technology progresses exponentially...30 steps linearly gets you to 30. 1, 2, 3....you're at 30. With exponential growth, it's 1, 2, 4, 8...step 30, you're at a billion.
- Current exponential growth of computing will continue and human-level intelligence will be eclipsed as early as 2029.



TECHNOLOGY CONTINUES TO ADVANCE EXPONENTIALLY

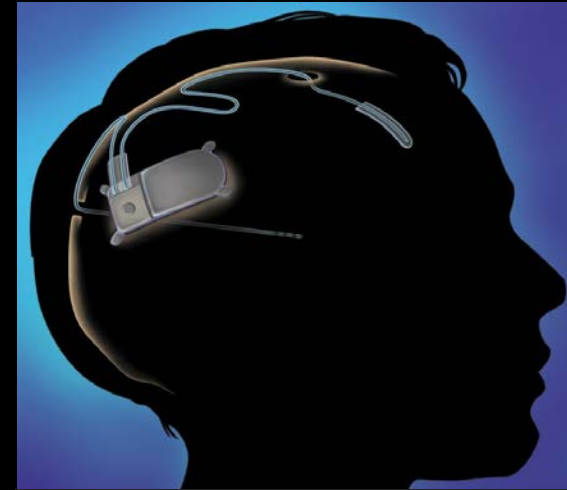
2029



Software is autonomously learning and creating new knowledge



A \$1,000 computer is now 1,000x more powerful than the human brain



VR eyeglasses and headphones are replaced with computer implants

**Apply the Varian Rule to round out
your technology vision**

VARIAN RULE



Hal R. Varian

Chief Economist
at Google

A simple way to forecast the future is to look at what wealthy people have today; middle-income people will have something equivalent in 10 years, and the rest of the population will have in an additional decade.

VARIAN RULE

What do wealthy people have access to? Private Drivers / Chauffeurs...



LINEAR GROWTH

Taxi Industry

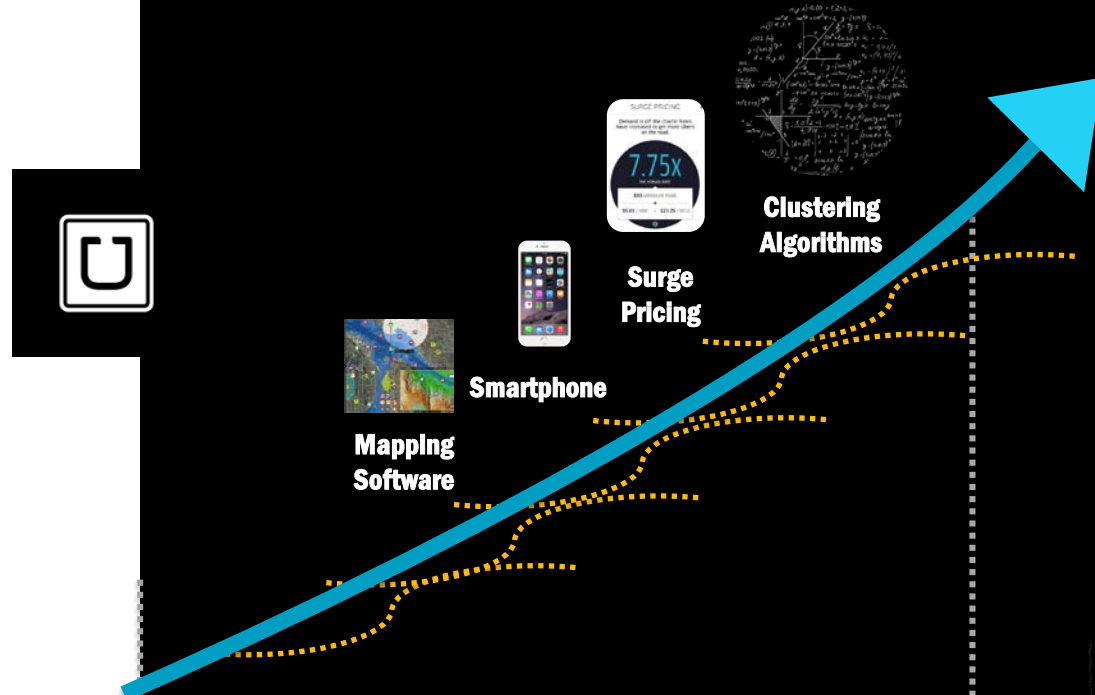


Linear thinking companies
get displaced by
exponential technologies

THE ART OF THE POSSIBLE

EXPONENTIAL GROWTH

Uber is riding the exponential curve and disrupting the transportation industry!



Everyone's Private Driver



Internet of things • Google Self- Driving Car Tesla



Tesla Model 3:
400,000 preordered units that
representing a sales backlog
of \$14 billion.



THE ART OF THE POSSIBLE

LINEAR GROWTH

EXPONENTIAL GROWTH

Financial Industry

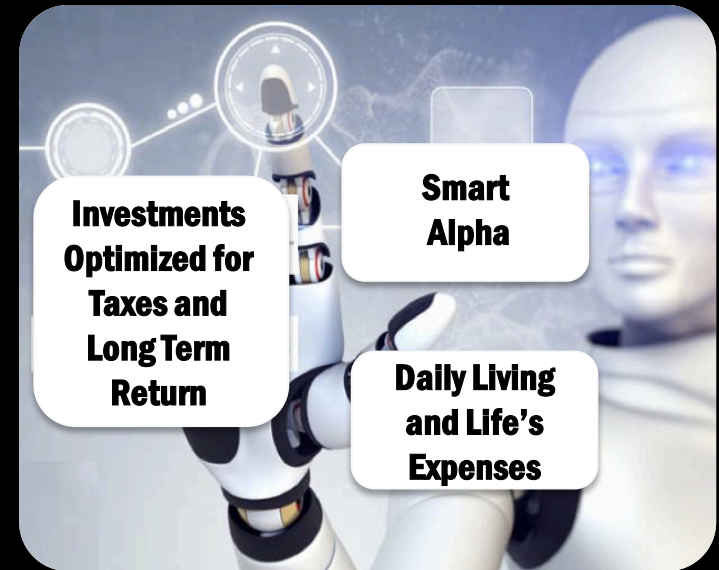
Linear thinking companies
get displaced by
exponential technologies



Venture Capital
Wealth Management
Hedge Funds



AI Enabled Financial Services



Robo-advised Asset Allocation
and Diversification



ETFs
Mutual Funds



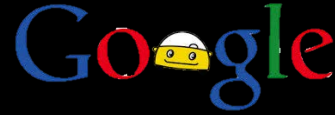
Smart Phone



Uber



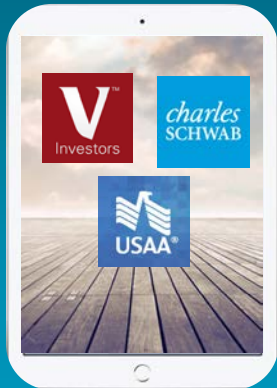
Waze



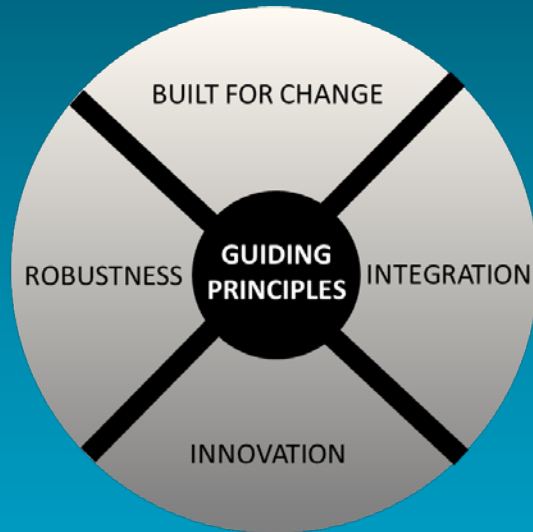
Driverless Car



**AMPLIFIED
DISRUPTIVE
TECHNOLOGY IN
TRANSPORTATION**



Direct Investor
Interaction



Nasdaq Financial
Framework



Electronic Execution and
Recordkeeping
(Blockchain)



**AMPLIFIED
DISRUPTIVE
TECHNOLOGY
IN MARKETS**

AS YOU ARE THINKING ABOUT YOUR FUTURE

- 1. Identify the landscape**
- 2. Be aware of exponential improvement**
- 3. Apply the Varian Rule to round out your technology visions**

AND LASTLY, ALWAYS ASK YOURSELF....



WHAT'S TODAY'S PLASTIC?