

# DISTILLING INSIGHT:

PERCEIVING TRENDS THAT WILL CHANGE THE RULES

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# TODAY

**We are living in a period of rapid change.**

**This characteristic of life in the 21st century has important implication for educators who must prepare students for a future we cannot see.**



BranchED's Fall Summit

Empower to Advance: Envisioning the Future of Education

# TODAY

**This session is designed to challenge your thinking about what the future may look like. And, more importantly, how you can be a catalyst for perceiving trends that will change the rules about education, work, leisure, and societal priorities.**




BranchED's Fall Summit

Empower to Advance: Envisioning the Future of Education

WOULD YOU RATHER...

# WOULD YOU RATHER...

1. use an **ATM** or visit a **bank teller**?
  2. order your morning coffee **at the counter** or use the **Starbucks app**?
  3. complete your taxes yourself with **Turbotax** or use an **accountant**?
  4. check-out with a **cashier** or use **self-checkout** at the grocery store?
  5. pay your bills using **online bill pay** or put a **check in the mail**?
- 

LOOKING BACK -  
LOOKING AHEAD

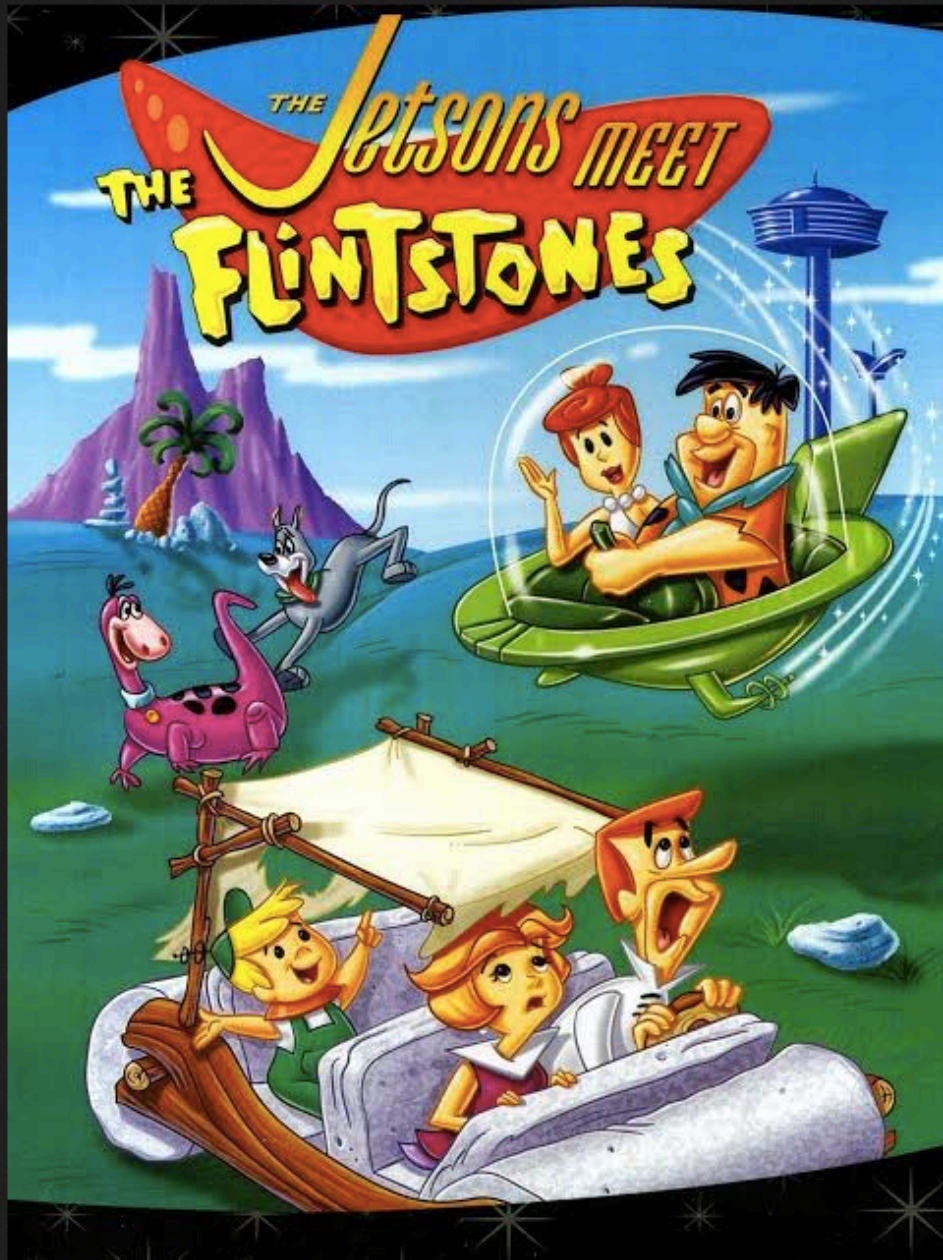














*The Opener BlackFly eVTOL performs during a night airshow at the EAA AirVenture in Oshkosh on July 27, 2022. | David Tulis*

# It's 2024: Where are our flying cars?

May 7, 2024 / Current Events, Science and Technology, Think





CHANGE AND <sup>3</sup>  
GENERATIONS









**How would each generation go about completing the task of contacting a friend who lives in another state?**



**How would each generation go about completing the task of contacting a friend who lives in another state?**

- write a letter, make a phone call
- make a phone call, send an email
- send a text



**How would each generation go about getting directions for an upcoming trip?**



## How would each generation go about getting directions for an upcoming trip?

- study an atlas
- call AAA, print maps from MapQuest, use Google Maps or Waze
- turn GPS on



**Where would each generation turn to listen to their favorite music?**



## Where would each generation turn to listen to their favorite music?

- records, radio
- records, 8tracks, cassettes, CDs, iPod
- streaming



## Lessons Learned?

- Technology affords many options.
- Looking back, we often think of these changes as **progress**.
- Sometimes we long for the “good old days.”
- As Educators, we charged with preparing students for a future that is vastly different than the past.





**I have a vested interest in the future, because I plan on living there.**

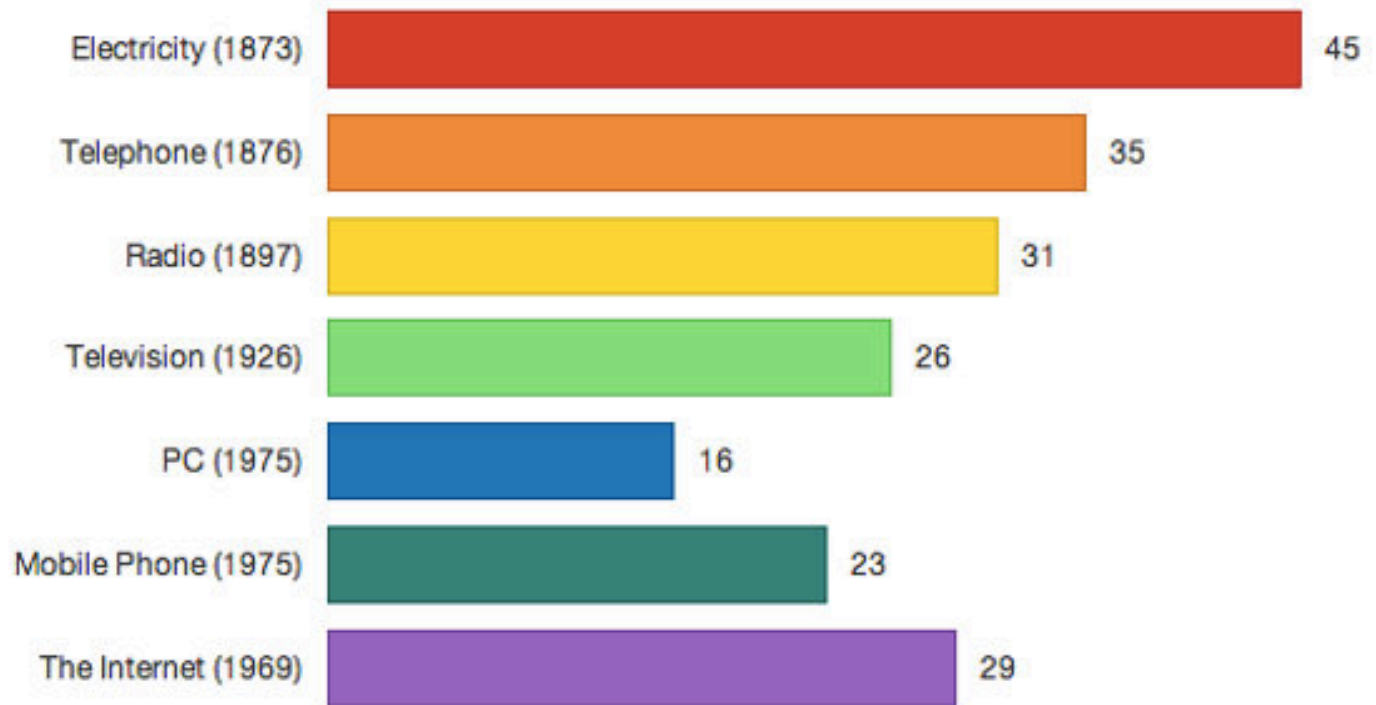
Neil Gershenfeld



WHAT CAUSES PEOPLE  
TO ADOPT NEW  
TECHNOLOGIES?

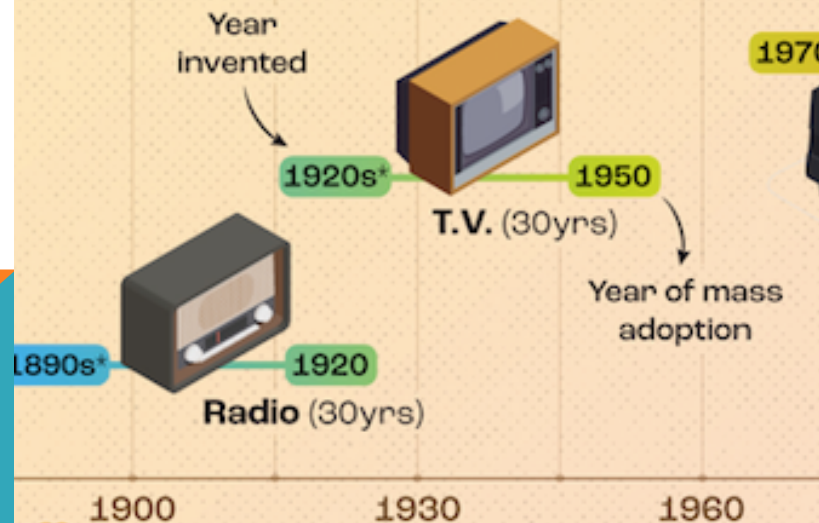
# Technology Adoption

Years until used by one-quarter of the American population

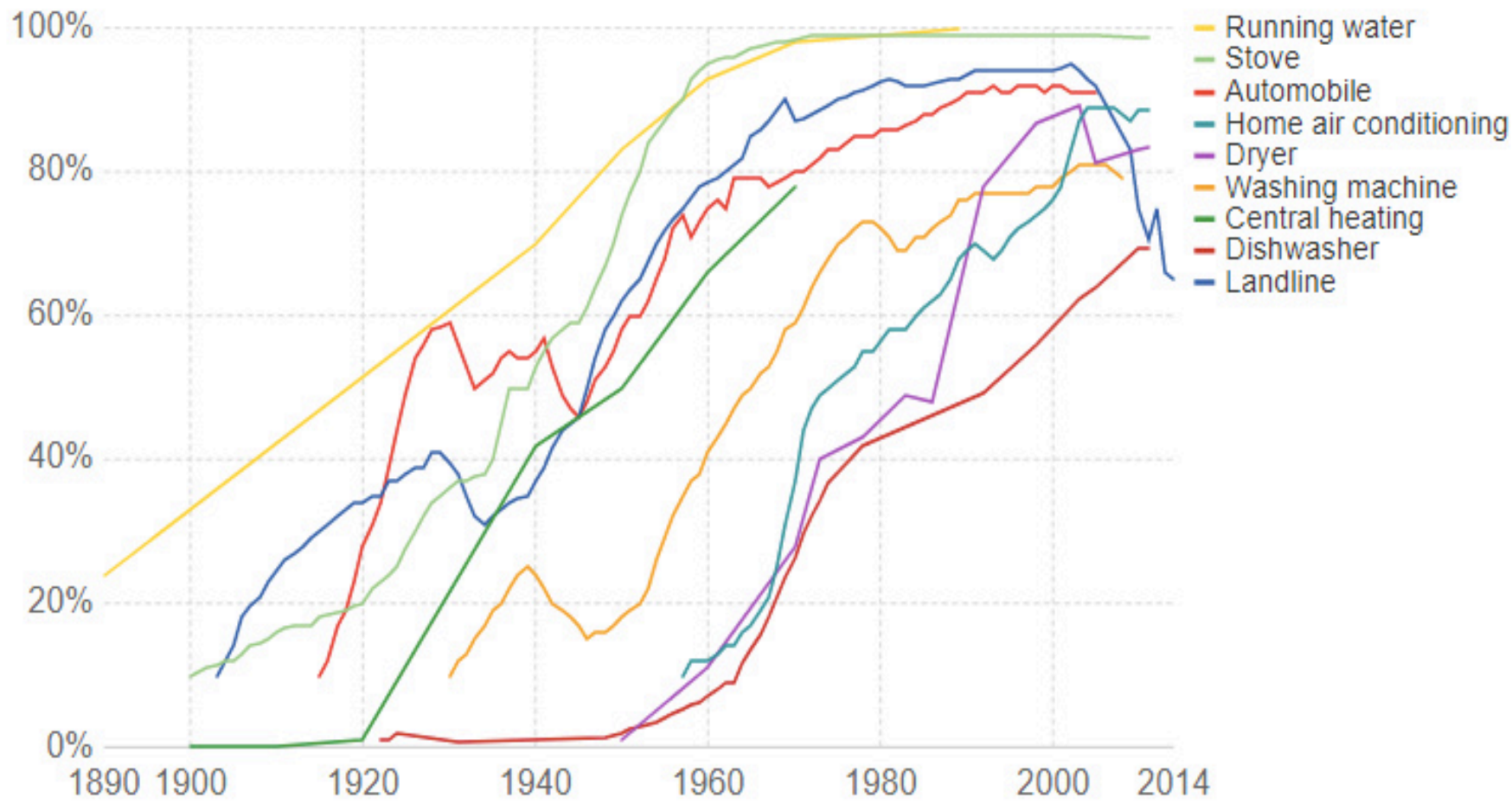


# The Time it Takes **New Technologies** to Go **Mainstream**

Tech classifies as mainstream when it becomes integrated into everyday life



Source: Bank of America, TechTarget, HowtoGeek



Big tech's rapid adoption of Gen AI may push it mainstream quicker than Blockchain



Gen AI



Blockchain



USB (9yrs)



Smart Phones (16yrs)



Mobile Phones (27yrs)



Email (26yrs)



Internet (24yrs)

1950  
(yrs)  
Year of mass adoption

Some invention dates vary from the original source after verification with listed corroborating sources. \*Successive inventions through the 1890s and 1920s created the radios and TVs eventually sold for mass consumption.

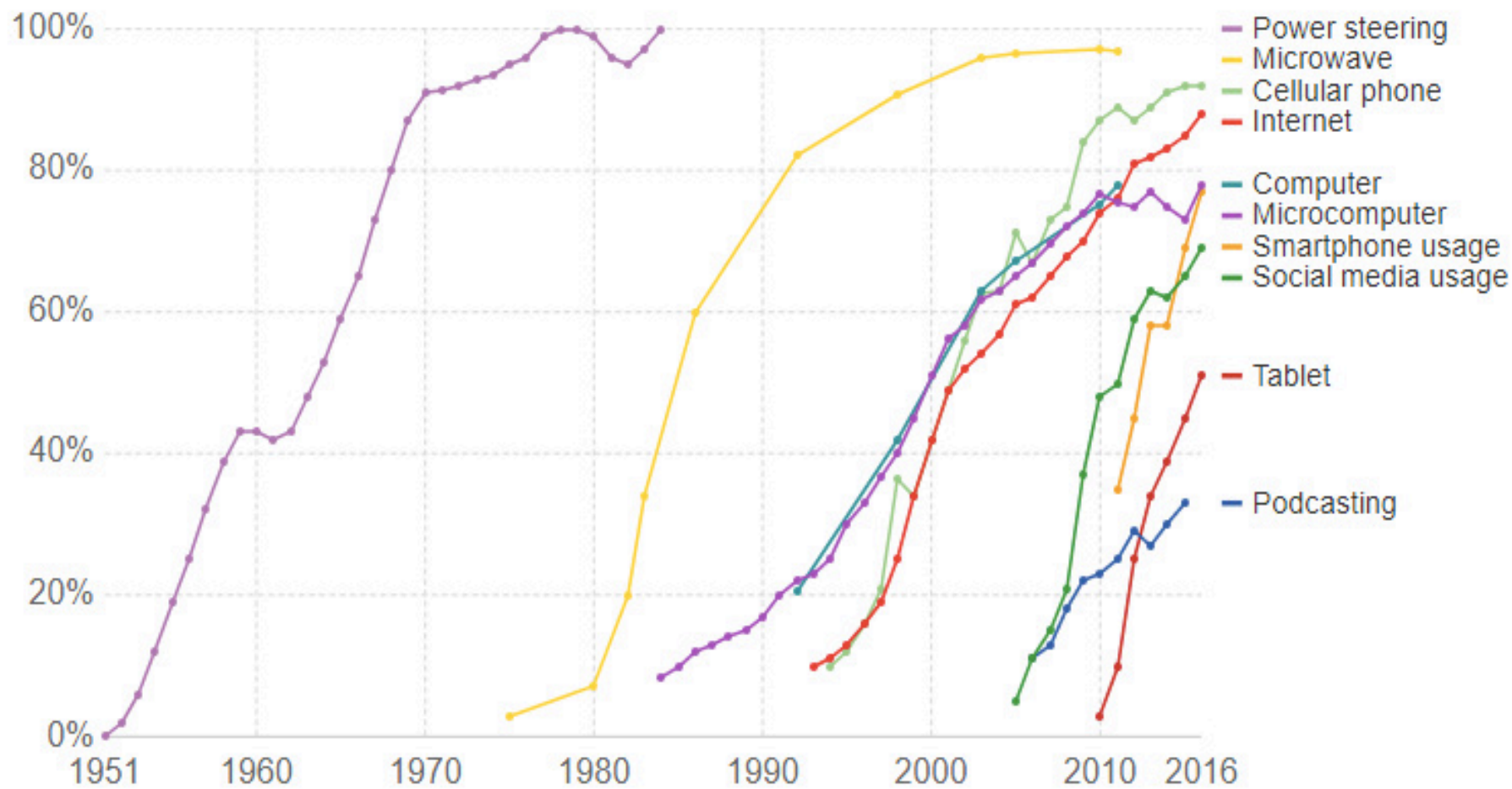
1960

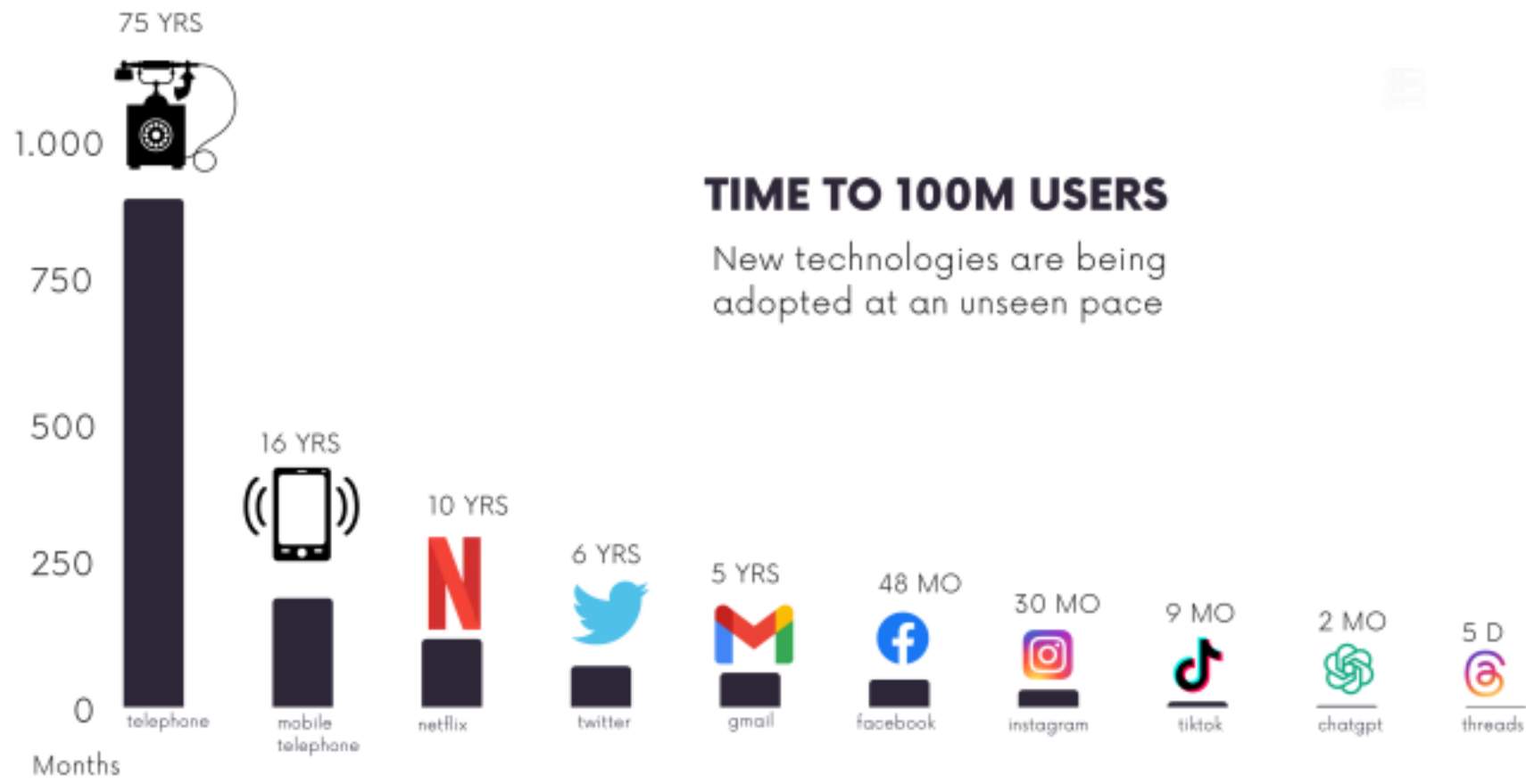
1990

2020

toGeek



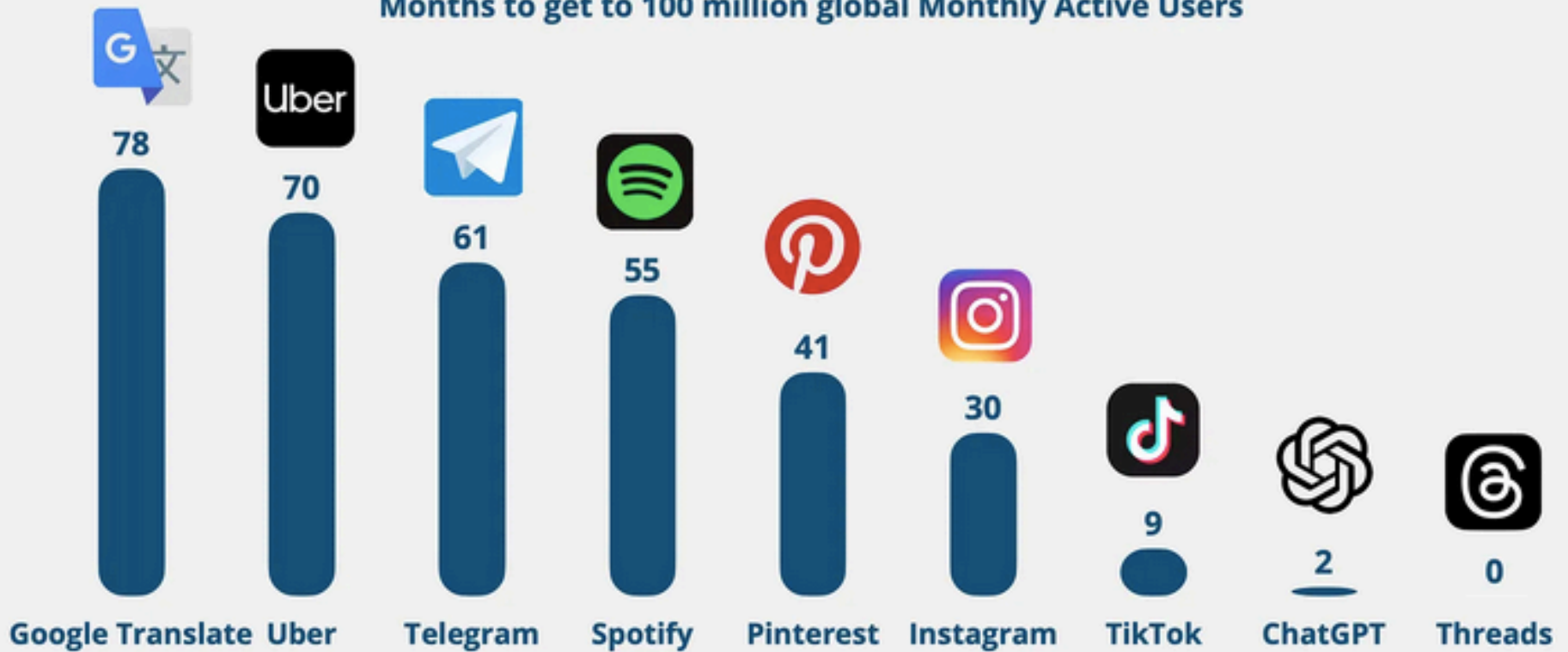






# Time to Reach 100M Users

Months to get to 100 million global Monthly Active Users



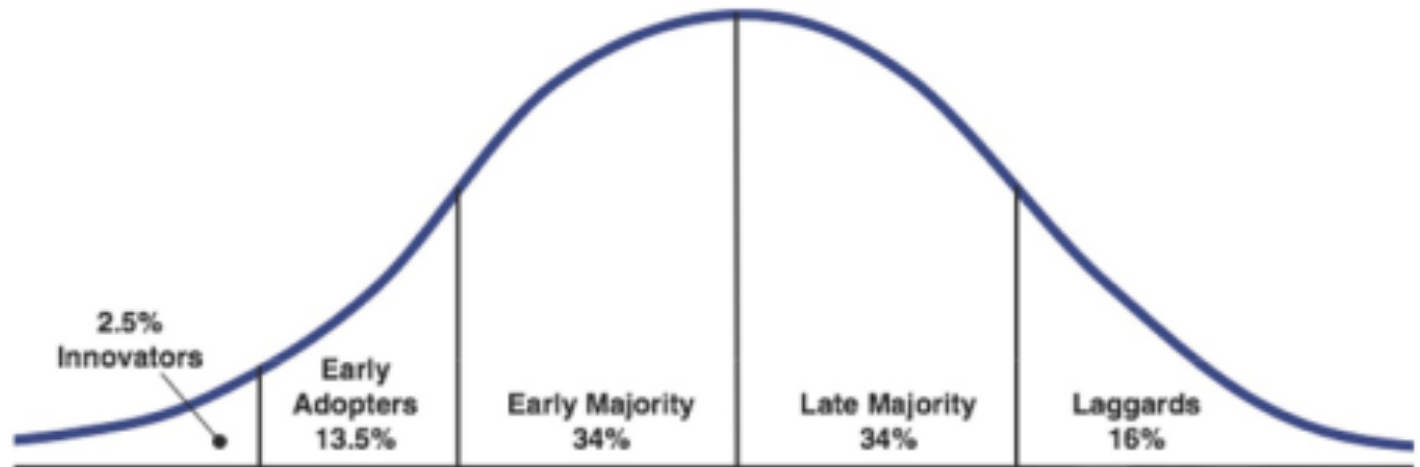
Source: UBS / Yahoo Finance

 @EconomyApp

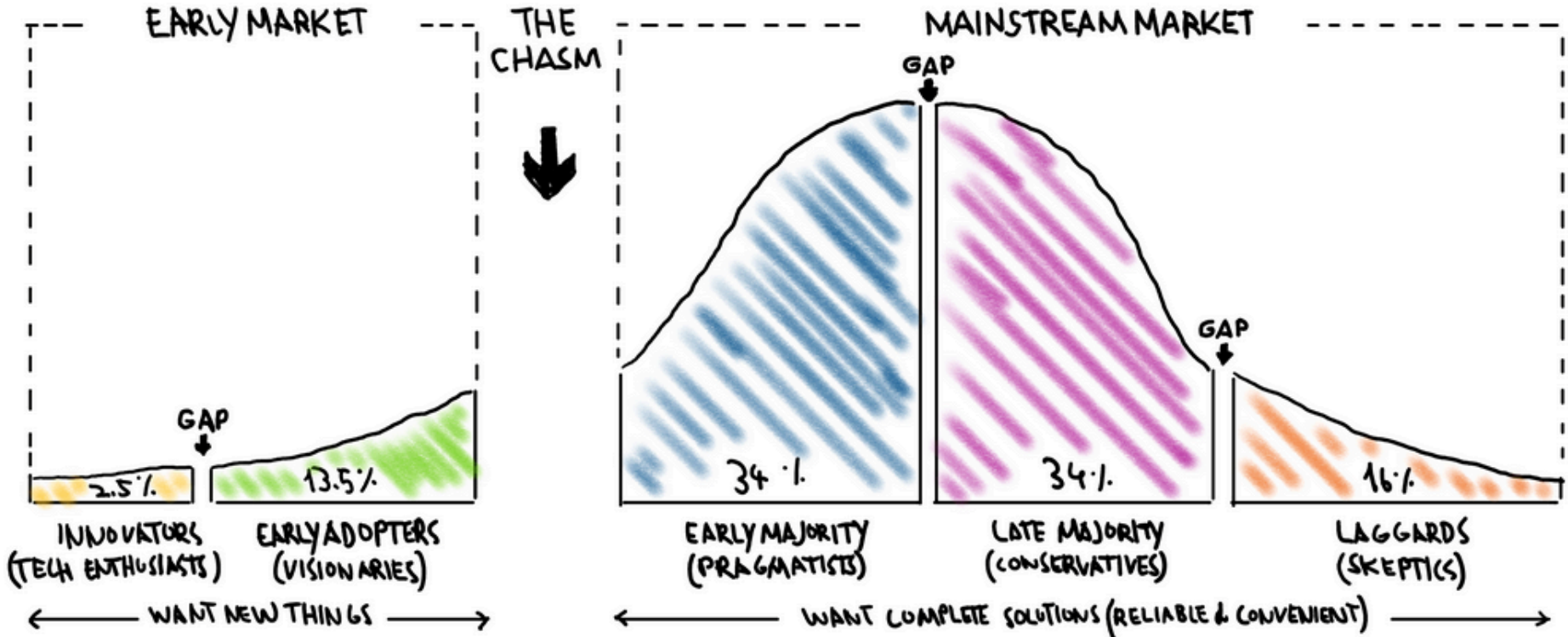
 APP ECONOMY INSIGHTS

# Technology Adoption Curve

*Everett Rogers – Diffusion of Innovations 1962*



# Geoffery Moore's Crossing the Chasm (1991)



Graphic by Santeri Liuukonen - The Lost Book of Sales ([www.lostbookofsales.com](http://www.lostbookofsales.com))  
Original Technology Adoption Lifecycle by Geoffrey Moore

Technology Adoption Lifecycle

# Accelerating Diffusion of Innovation: Maloney's 16% Rule<sup>©</sup>

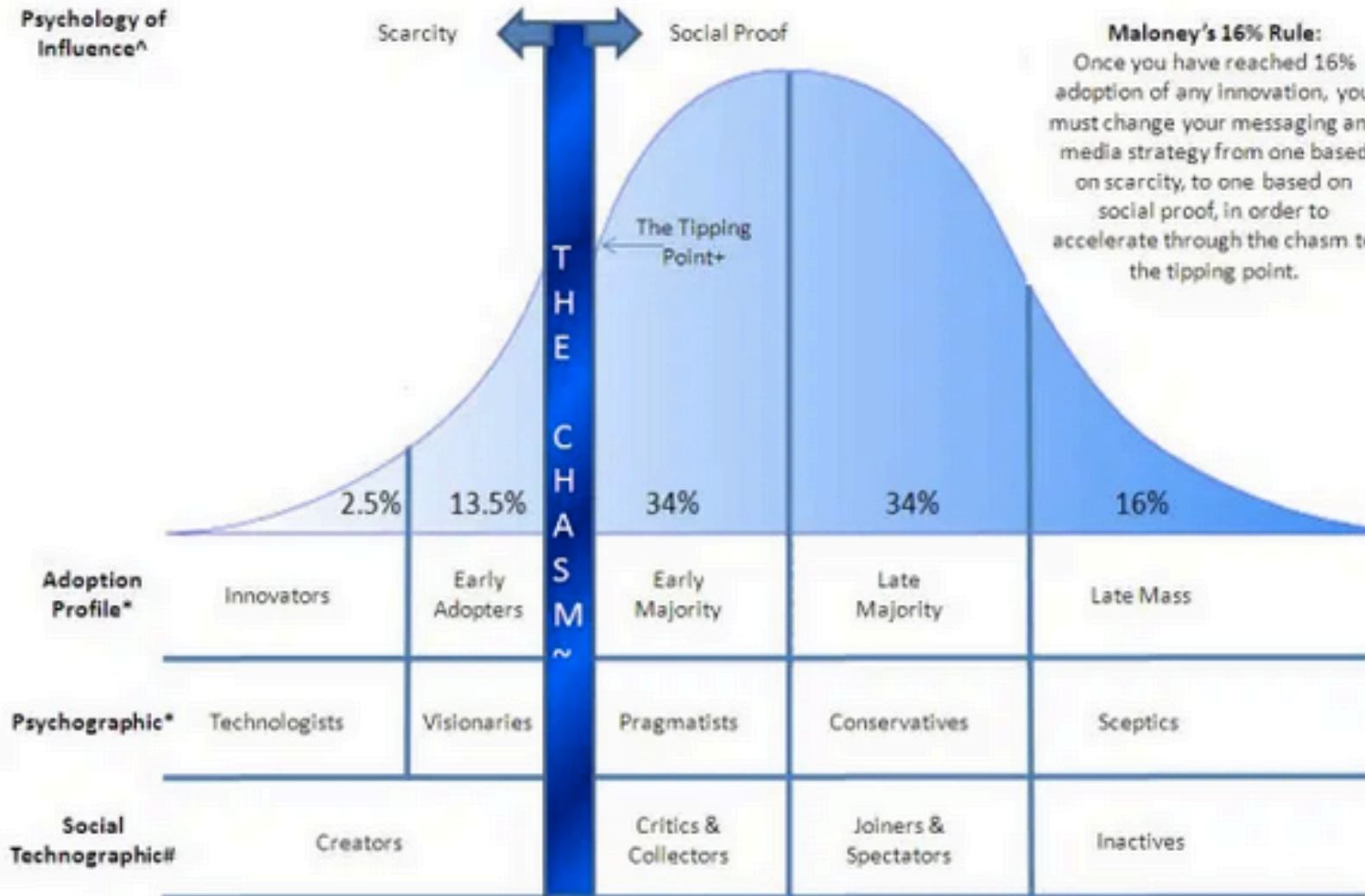
Psychology of Influence<sup>^</sup>

Scarcity


Social Proof

**Maloney's 16% Rule:**

Once you have reached 16% adoption of any innovation, you must change your messaging and media strategy from one based on scarcity, to one based on social proof, in order to accelerate through the chasm to the tipping point.



<sup>^</sup> Robert Cialdini <sup>\*</sup> Everett Rogers <sup>#</sup> Forresters <sup>~</sup> Geoffrey Moore + Malcolm Gladwell




"A deeply thoughtful, often funny, more often startling, and utterly compelling examination of American higher education in the twenty-first century."

—Tim O'Brien

# **"WHATEVER IT IS, I'M AGAINST IT"**

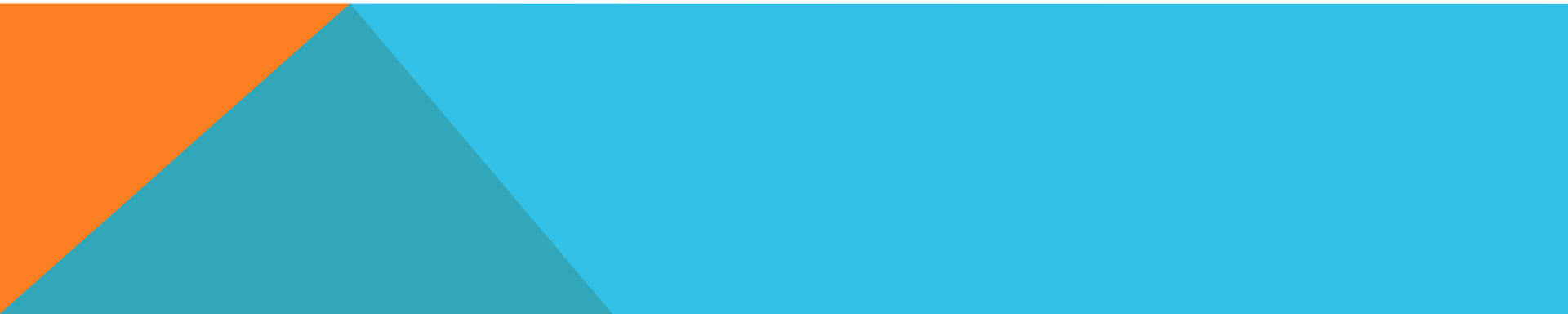
Resistance to Change  
in Higher Education

**BRIAN ROSENBERG**

The background consists of several overlapping geometric shapes. A large white triangle is in the top-left. A large orange triangle is in the bottom-right. A smaller blue triangle is in the bottom-left. The text 'FORECASTING THE FUTURE' is written in black, uppercase letters, following the diagonal edge of the white triangle.

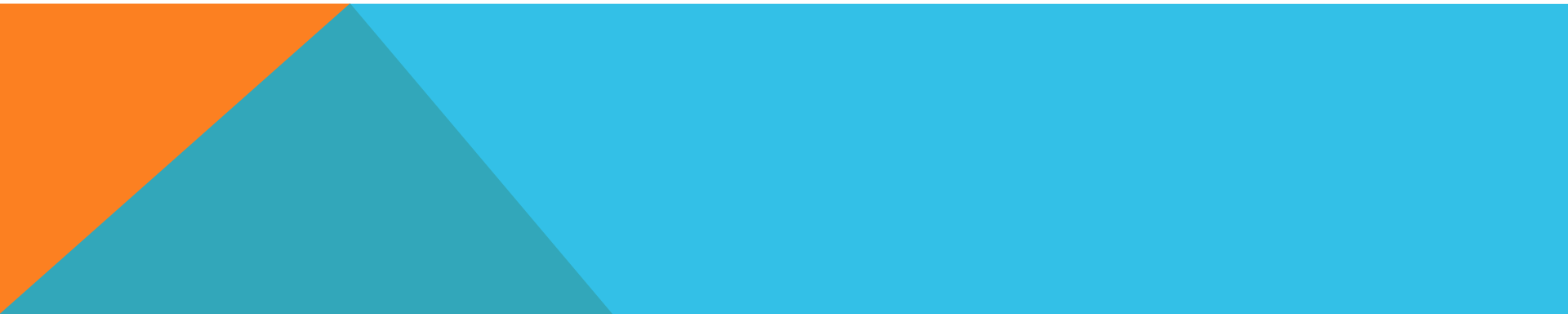
FORECASTING THE FUTURE

To inform their **forecasts** about what the future holds, futurists spend a great deal of time **analyzing trends** and **looking for patterns**.



For example, **societal trends** could include:

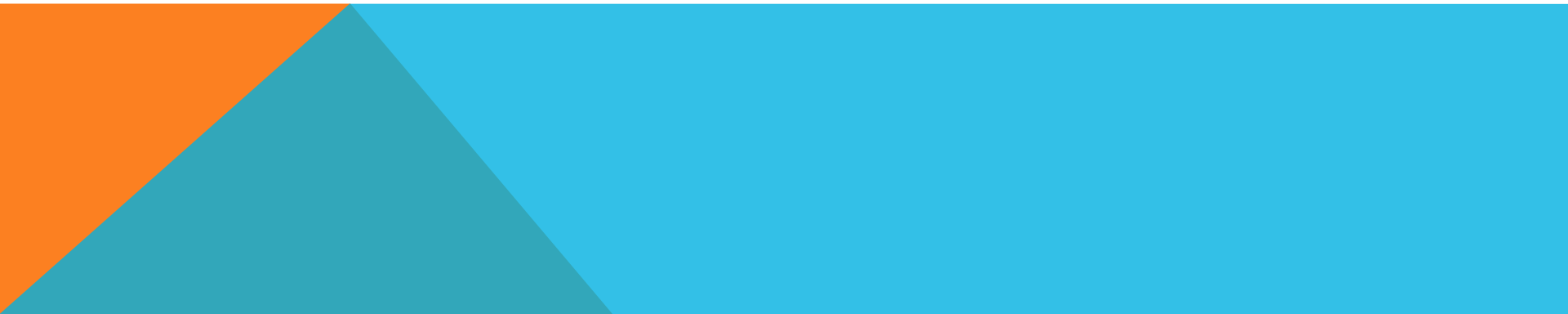
- demographic changes (aging population, declining birthrate)
- obesity rate
- income inequality
- climate change





## **Education trends** could include:

- learning loss
- teacher shortages
- In an age of artificial intelligence (AI), what does it mean to know?
  - + What changes?
  - + What stays the same?
  - + What is no longer relevant?



FOR RELEASE DECEMBER 10, 2018

# Artificial Intelligence and the Future of Humans

*Experts say the rise of artificial intelligence will make most people better off over the next decade, but many have concerns about how advances in AI will affect what it means to be human, to be productive and to exercise free will*

**BY** Janna Anderson, Lee Rainie and Alex Luchsinger



Crash test dummies (Bill O'Leary / Getty Images)

# The crash test dummies for new AI models

In the absence of actual regulation, AI companies use "adversarial testers" to check their new models for safety. Does it actually work?

Copyrighted Material

"Stunning and profound . . . a true tour-de-force."—John Seely Brown

# TOO BIG TO KNOW

RETHINKING KNOWLEDGE *Now That the FACTS AREN'T*

*the* FACTS, EXPERTS *Are* EVERYWHERE, *and*

*the* SMARTEST PERSON *is* *the*

ROOM *is* *the* ROOM

David Weinberger

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INCREMENTAL CHANGE

Futures that involve **incremental change** serve as an excellent warm-up for the brainstorming required for future visioning activities. Such visions of the future are safe for individuals and groups to consider because we merely connect some dots among trends that are already apparent.



*Scenario of the Future:* Homes will be equipped with **3D printers** so that food and products can be obtained on-demand.

*Implications:* Consumers will order food and product supplies that they place in their 3D printer to obtain medicine, home decor, replacement parts, toys, and more.




*Scenario of the Future:* **Self-driving cars** will become the classroom of the future.

*Implications:* Adults and children will benefit from self-driving cars as an environment in which to spend time completing micro-lessons that generate learning credentials.







INCREMENTAL CHANGE  
SCENARIOS WITH  
CONVERGENCE

**The best way to predict the future  
is to invent it.**

Alan Kay



*Scenario of the Future:* **Robots** and **virtual assistants** will offer friendship and encouragement.

*Implications:* AI powered robots and virtual assistants will function as friend, therapist, and collaborator to help people become their best self.



*Scenario of the Future:* **Blockchain** technologies and **Microcredentials** will be used to create lifelong learning transcripts.

*Implications:* Learning records (i.e., transcripts) will become public documents illustrating a person's lifelong learning accomplishments.

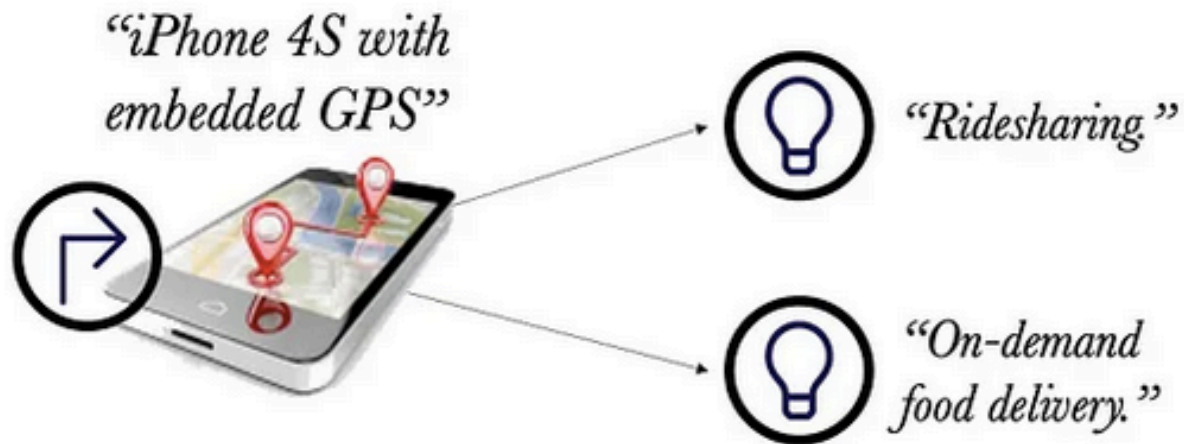


## What is an Inflection?

### **Inflection (definition)**

An inflection is an external change event that creates the potential for radical change in how people think, feel, and act.

An “inflection” can mean different things. In speech, it’s a change in voice pitch. In Mathematics, it’s a point on a curve where the curvature changes direction.



**Inflections**  
emerge *Externally*

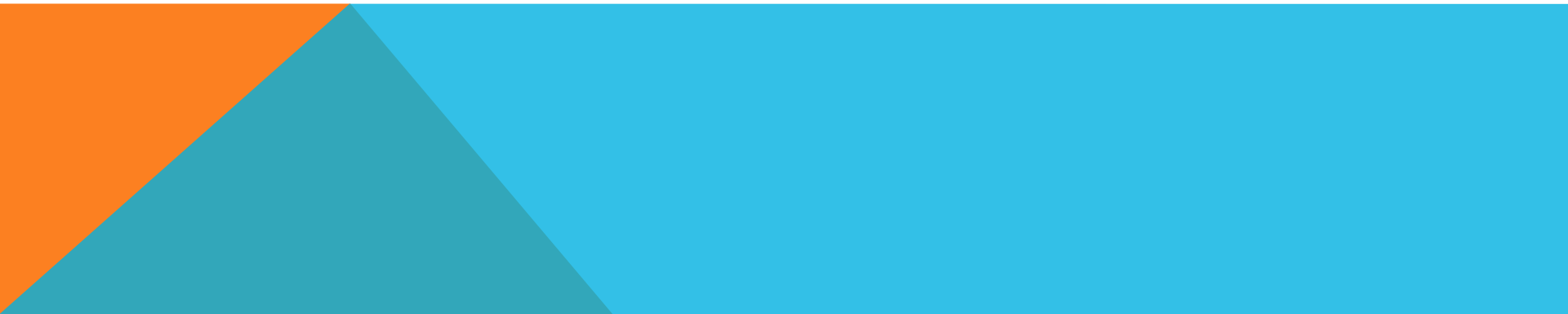
**Insights**  
come from *Founders*



**Business is never a fair fight.** It's a skewed battle where the old ways favor the big players. Big companies have employees, customers, supply chains, competitive moats, an established reputation or brand, and many other assets a startup lacks.

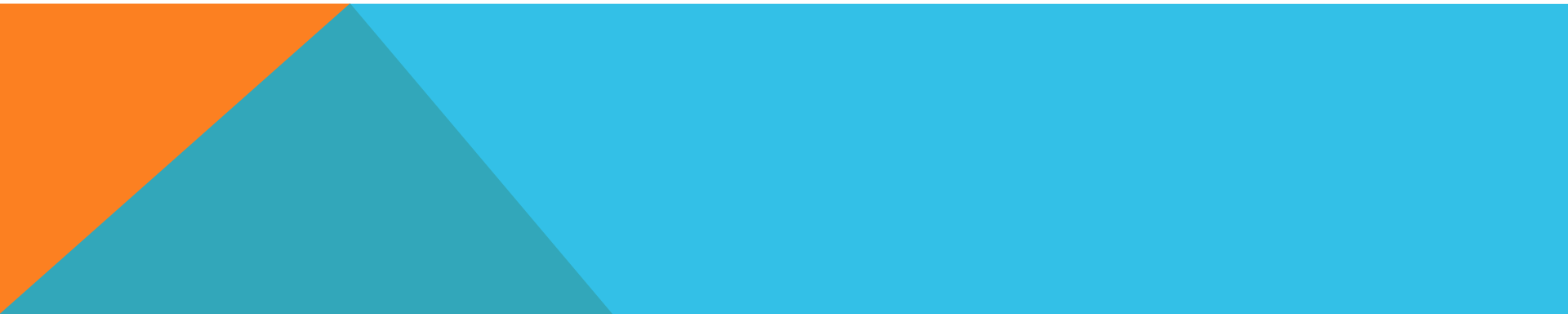
The biggest advantage incumbents enjoy may be the fact that people like to stick to familiar patterns. We stick to our habits, and they gain inertia over time. **Breaking the pattern takes something powerful — an inflection.**

Inflections give startups an unfair advantage to make a major impact. Insights are **how pattern-breakers creatively use inflections to wage asymmetric warfare on the status quo.**

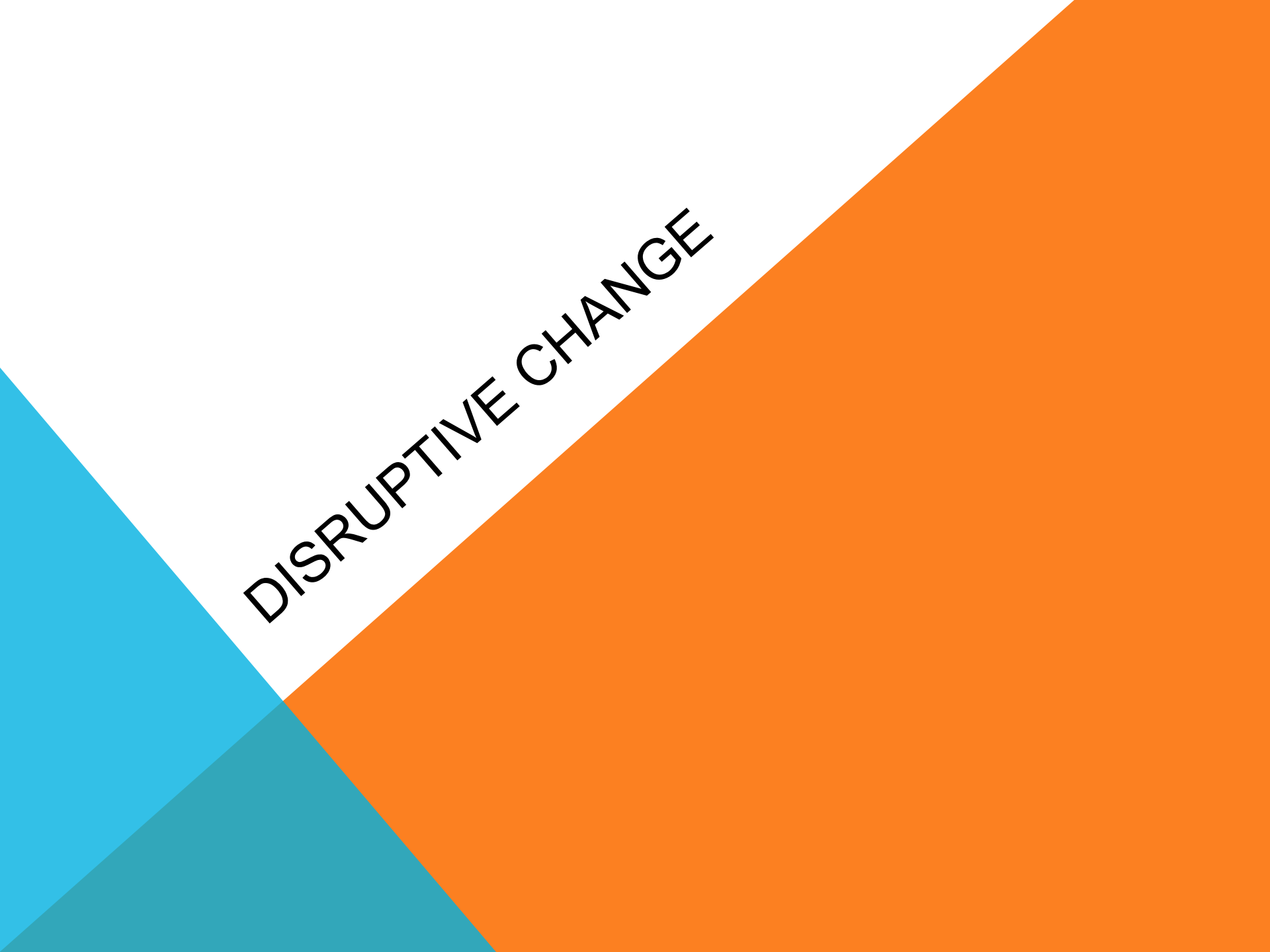


Let's consider some examples of inflections associated with the Covid-19 pandemic:

- Social distancing
- Online learning
- Remote work
- Touchless menus

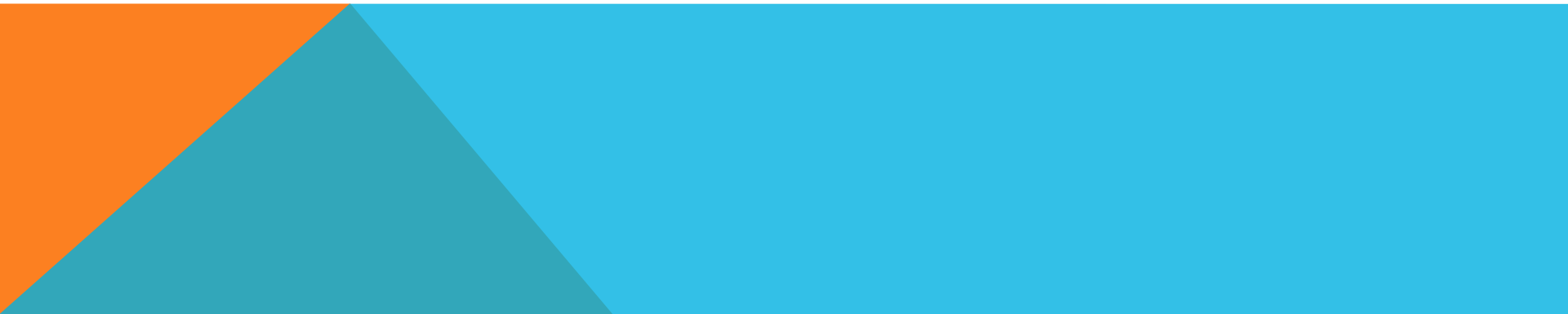






DISRUPTIVE CHANGE

When scenarios become bundled to reveal a convergence of multiple changes, the implications for the future could be quite profound. In this final section, I outline some disruptive change scenarios that have the potential to disrupt educational systems as we currently know them.



*Trends:* 3 screens and a cloud +  
engaged learning + big data + online  
learning

SCENARIO #5



*Scenario of the Future:* Daily attendance at school becomes optional as students use the Web to access digitized (online) curriculum materials via their own personal mobile device. Their performance is monitored to ensure high levels of engagement in challenging instructional content to accumulate academic credits.



*Trends:* Teacher shortages +  
common core state standards +  
learning analytics + personalized  
learning

SCENARIO #6



*Scenario of the Future:* The shortage of teachers prompts a move to personalized learning systems that feature universal design for learning supports. The interactive decisions teachers formerly made are now codified as learning analytics.

Algorithms become smarter than any one individual because of the immense amount of student performance data fed into the system.




CONCLUSION



**NEVER INNOVATE TO  
COMPETE; INNOVATE  
TO CHANGE THE RULES  
OF THE GAME.**

— David O. Adeife





The future  
is not a  
fixed  
point.

**It is ours to create.**



# QUESTIONS & ANSWERS