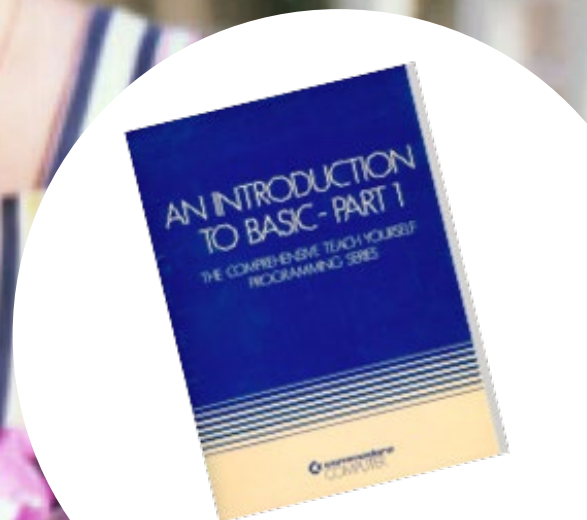




Computer science: Opportunity & creativity

Hadi Partovi, Code.org, @hadip



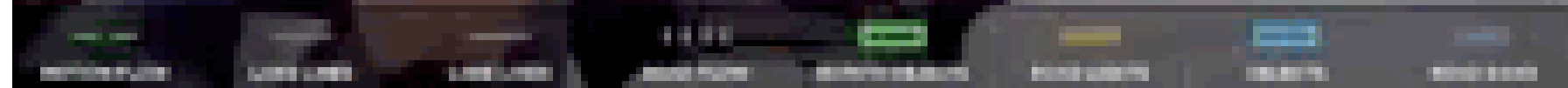
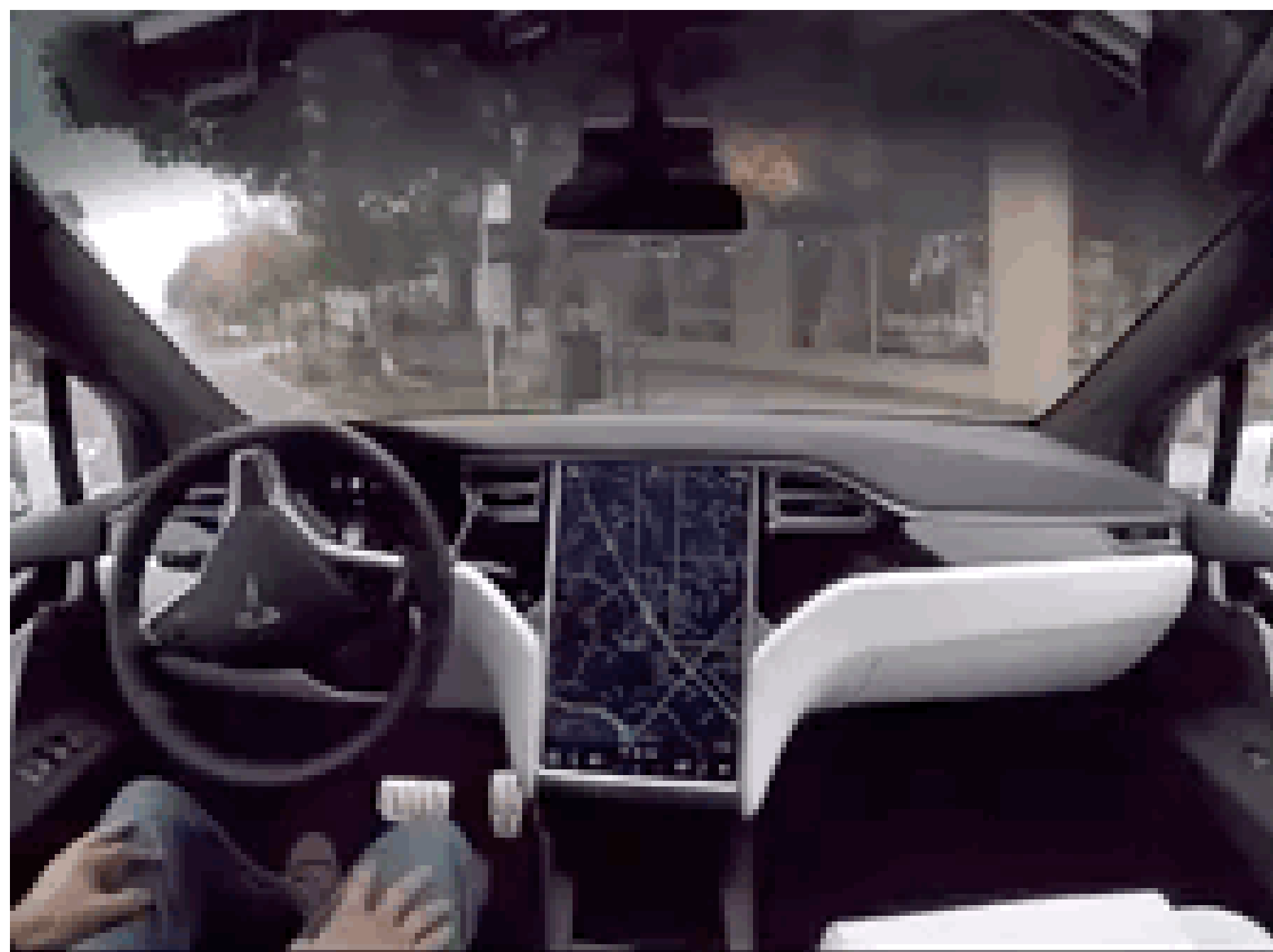


Opportunity





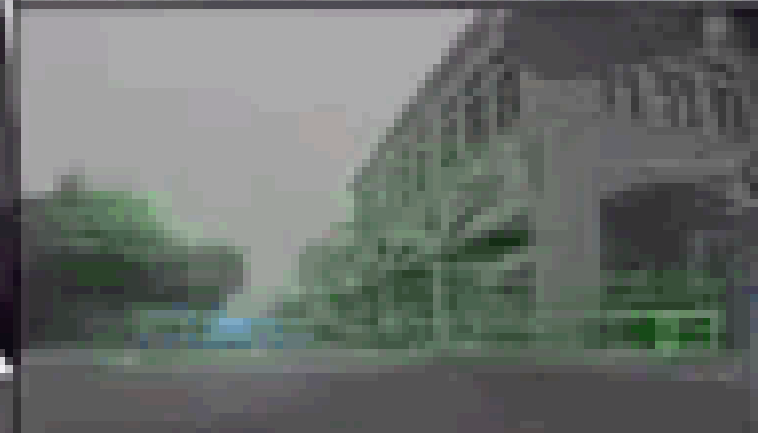




LEFT: REARWARD VEHICLE CAPTION



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This Blog Post Was Written By AI

To show what is possible with using AI to produce content marketing assets, we have used AI to write this blog post.



Human-written background: with recent advances in artificial intelligence, marketers are increasingly able to leverage AI for everything from segmentation to personalization. AI is also beginning to be used for the development of marketing assets, including landing page copy, ad copy, and even blog posts that have gone viral. To show what is possible with using AI to produce content marketing assets, we have used AI to write the blog post below. The only parts of this post written by a human are the subheadings and any text shown in italics.

Recent advances in AI have made it possible for computer algorithms to generate content that is nearly indistinguishable from human-written text.

Recently, OpenAI created a generative adversarial network(GAN) that generates new blog posts by













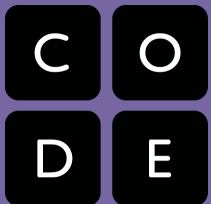
Panthéon Lab
POUR LE DÉVELOPPEMENT



**What is the role of
education?**

Our vision

Every student
in every school
has the opportunity
to learn computer science



**Is computer science
only about coding
and jobs?**

**Is computer science
only about coding
and jobs?**

NO!

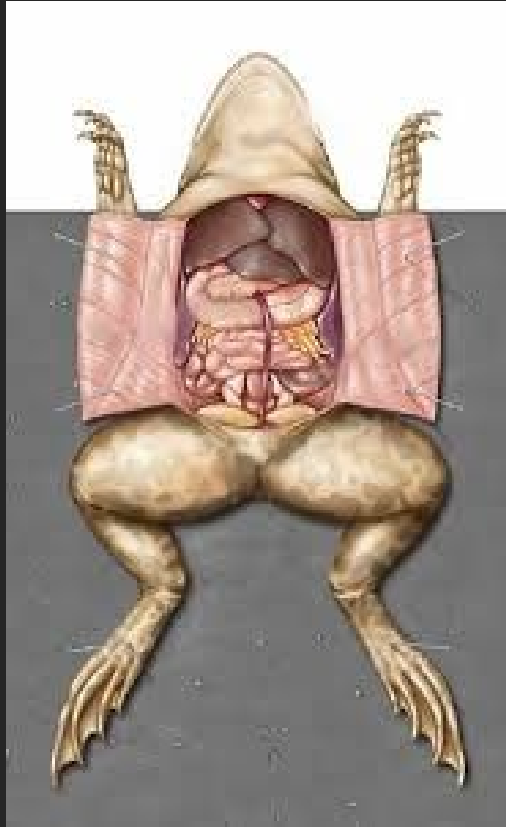


Computer science makes school better

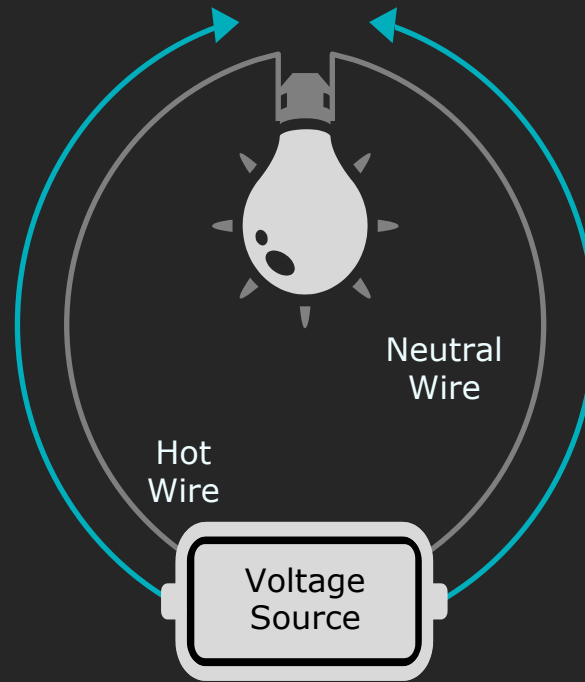


1. Better preparation for **life**

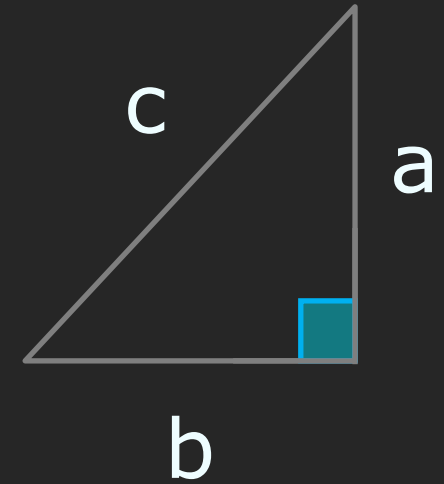




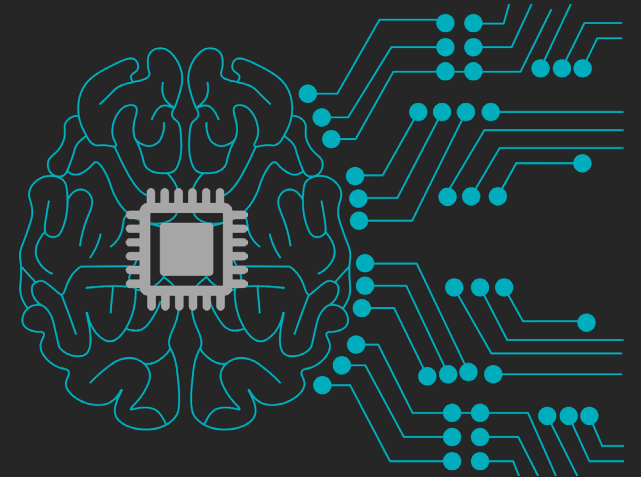
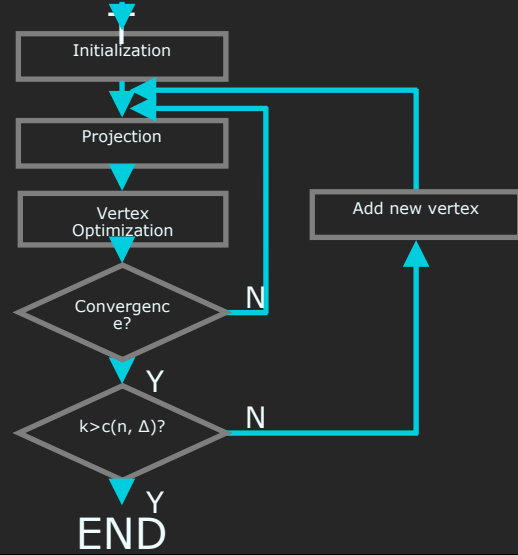
A Basic Circuit




$$a^2 + b^2 = c^2$$



STAR



A photograph of three students in a classroom setting, viewed from an overhead angle. A female student in the center is looking at a laptop. A male student to her right is looking at the same laptop. A third student, partially visible on the right, is also looking down. They are all wearing school uniforms. The image has a yellow-green tint. A large, light-yellow circle with a white border is overlaid on the left side of the image, containing the text.

2. Better preparation for **college and career**

Students who study **computer science...**



Outperform in reading, writing, math, and science exams in elementary school



Outperform in problem solving and executive functioning skills



Perform better in high school math courses



Are 17% more likely to enroll in four-year college



Outperform in problem-solving in university

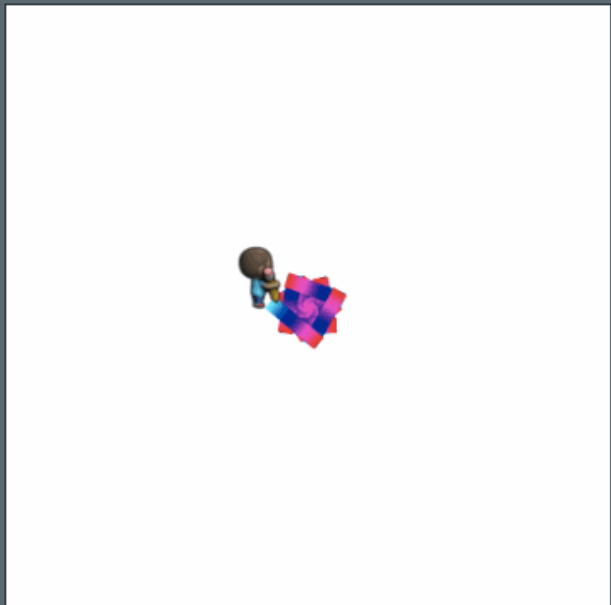


Make higher wages after graduation

And guess what: **language skills are 8x more likely to predict success in computer science than math skills**

3. Engage students with creativity







 Reset

How It Works





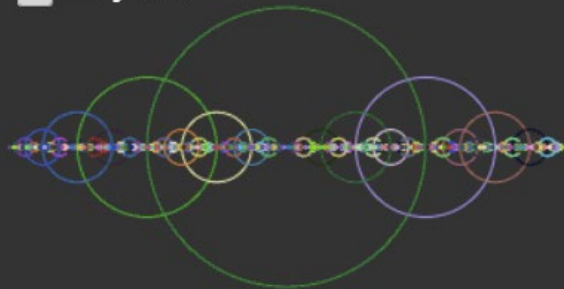
Built on Code Studio ▲

Score: 7   LivesRemain: 2



Built on Code Studio ▲

- ☐ Up
 - ☒ Left
 - ☒ Right
 - ☐ Down
 - ☐ Grayscale
- Circles 
- Generate Fractal  Size



Menu

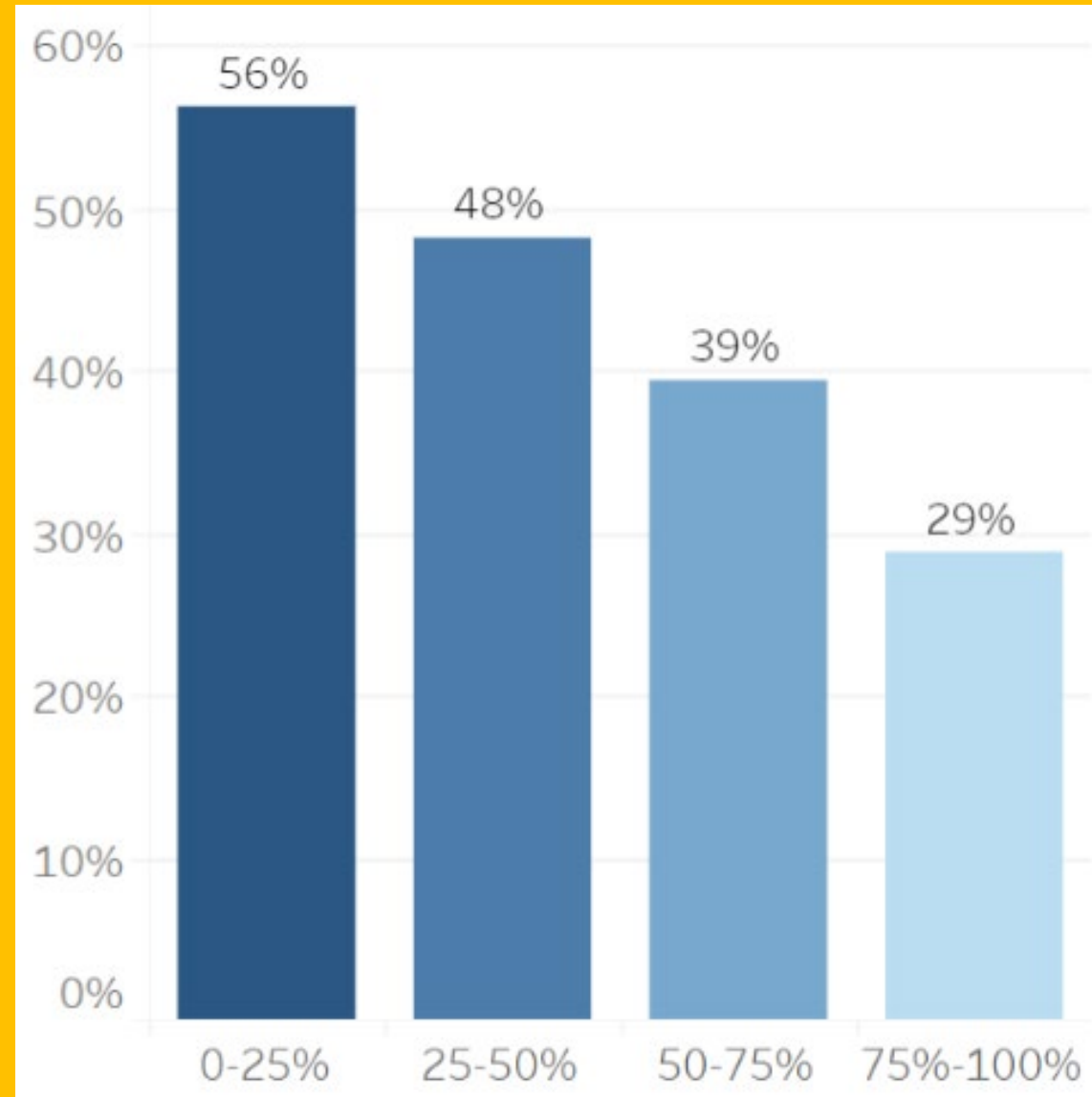
Built on Code Studio ▲

Students rank CS their **favorite** subject
behind only dance, music, and art



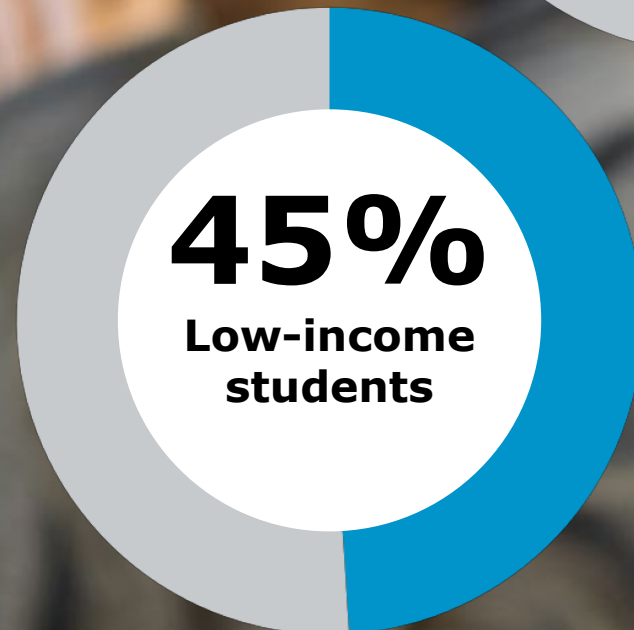
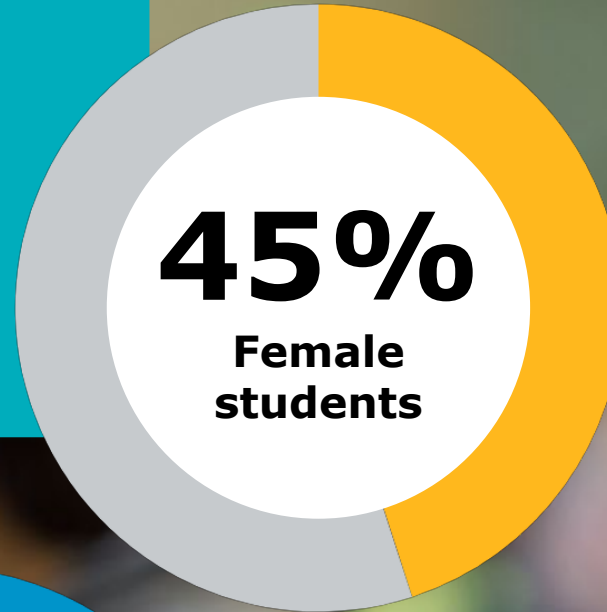
**Most schools don't
teach computer
science**

More likely to offer CS →



Lower income school →

75 million students on Code.org



220 million projects created!



Today

In the United States:

- All 50 states established policies to support K-12 CS
- Over \$250M in federal + state funding allocated for K-12 CS
- Over 100,000 new CS teachers prepared

Globally:

- Over 70 countries announced CS plans
- 2M teachers introduced CS to their classrooms
- The Hour of Code surpassed 1.5 billion served

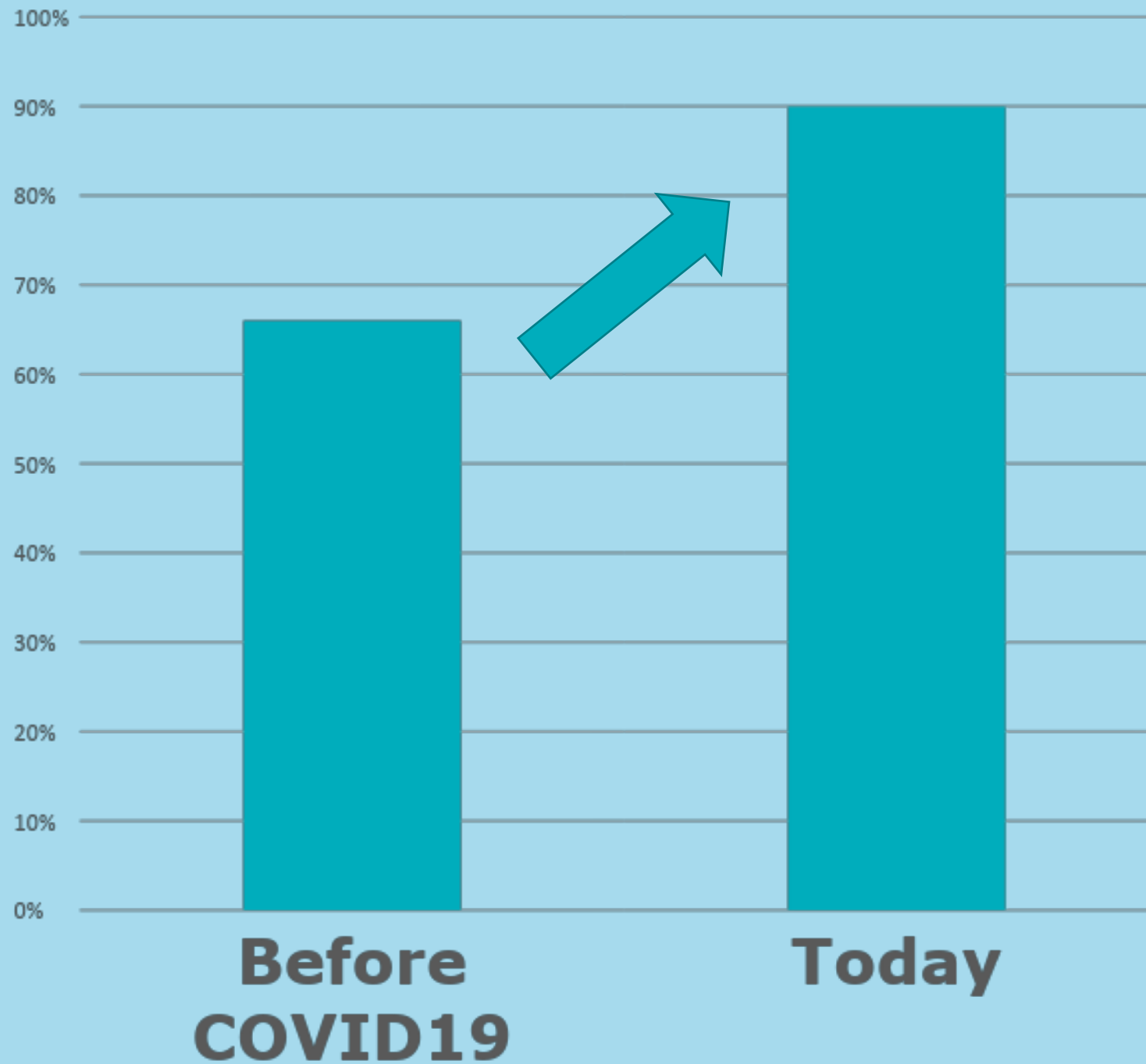
**Still, most schools
don't teach
computer science.**

The pandemic and the digital divide



90% of
students
have 1-1
devices

Source: EdWeek



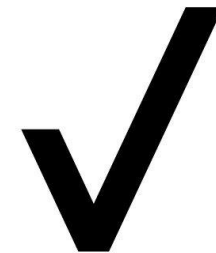


box

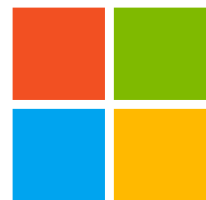


Up

FUJITSU



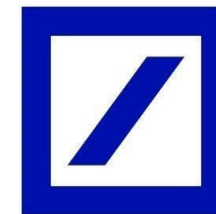
C



vmw



HITACHI
Inspire the Next



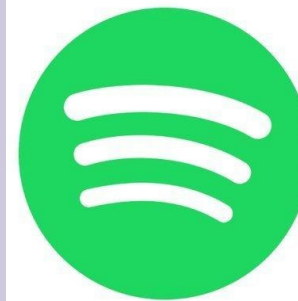
Quora



J.P.Morgan



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CEOs for CS

A message from over 500 business,
education, and nonprofit leaders.

CSTA

Snap Inc.

AT&T

DELL™

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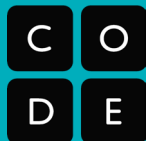
Infosys
FOUNDATION USA

Google

TEACHFOR
AMERICA

airbnb

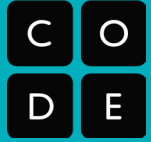




Governors' Compact



Computer science as a high school
graduation requirement for every
student



Results in South Carolina



Record enrollment: more young women took CS than in FL, GA, AL, and TN combined! (9x the population of SC)



Record diversity: in the USA, only 31% of CS students are female. In South Carolina: it's 46%



Graduation rates *increased*, countering concerns that adding a graduation requirement would drop graduation rates

Quick poll:

Do you think your state will make computer science a high-school graduation requirement by the year 2030?

