

QUARTZ MEMBERSHIP



# The rise of edtech

Member exclusive by



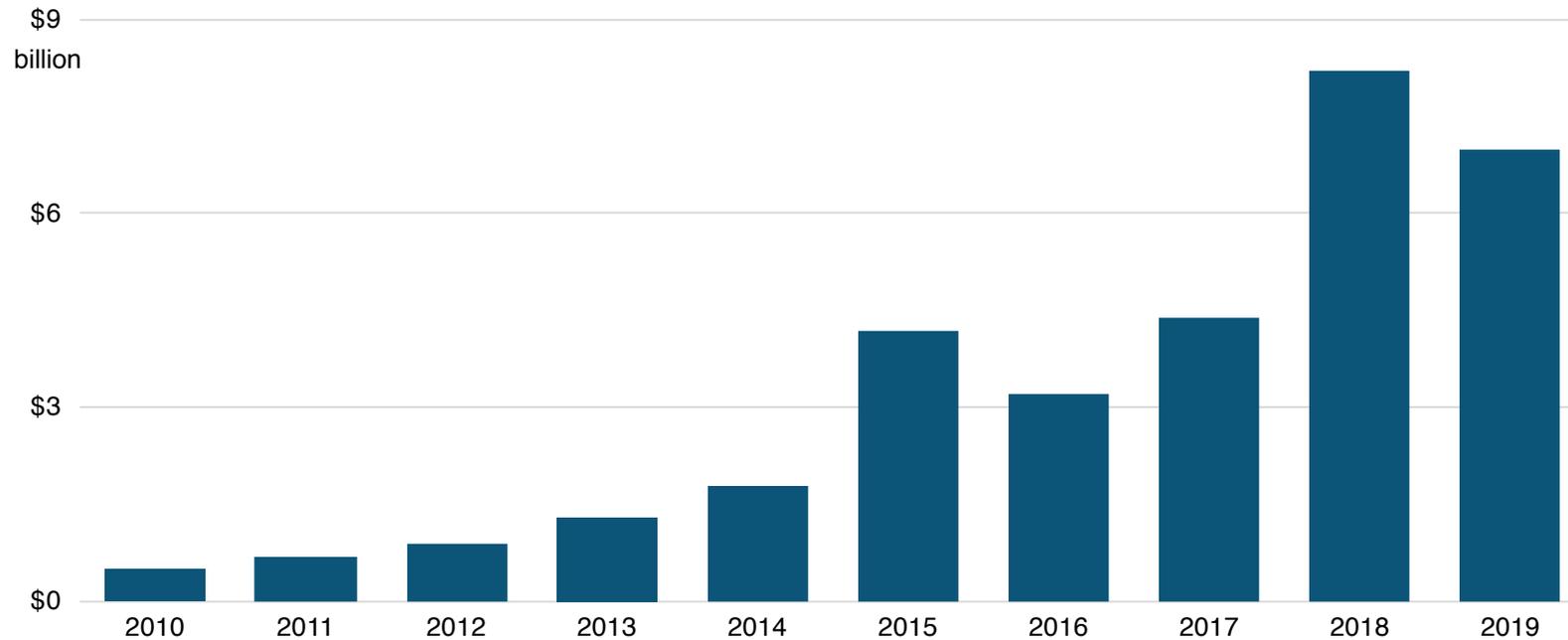
Dasia Moore

## The rise of edtech

Even as technology plays a larger role in every facet of life, just 3% of global education expenditure goes towards tech. Education technology startups and their venture capital funders are filling the gap. From homework management apps to online curricula and worker upskilling platforms, edtech is trying to transform the classroom.

### Global venture tech funding for education, 2010-2019

HolonIQ



## The education

Several global factors contribute to the rise of edtech and make it an attractive alternative or enhancement to traditional education models.

- **Technology.** To some extent, the rise of edtech is a natural outcome of increased use of technology in our daily lives. As more and more jobs require technological proficiency, it makes sense that tech would play a big role in learning and instruction at all stages.
- **Cost.** The gap between the most and least-educated has rarely been wider, and traditional education has rarely been more expensive. This leaves people around the world struggling to find affordable ways to learn and ultimately compete for better wages.
- **Innovation.** As the skills required for living-wage work evolve rapidly, education models for teaching new skills need to be faster, more flexible, and more widely-distributed than ever before.

## The technology

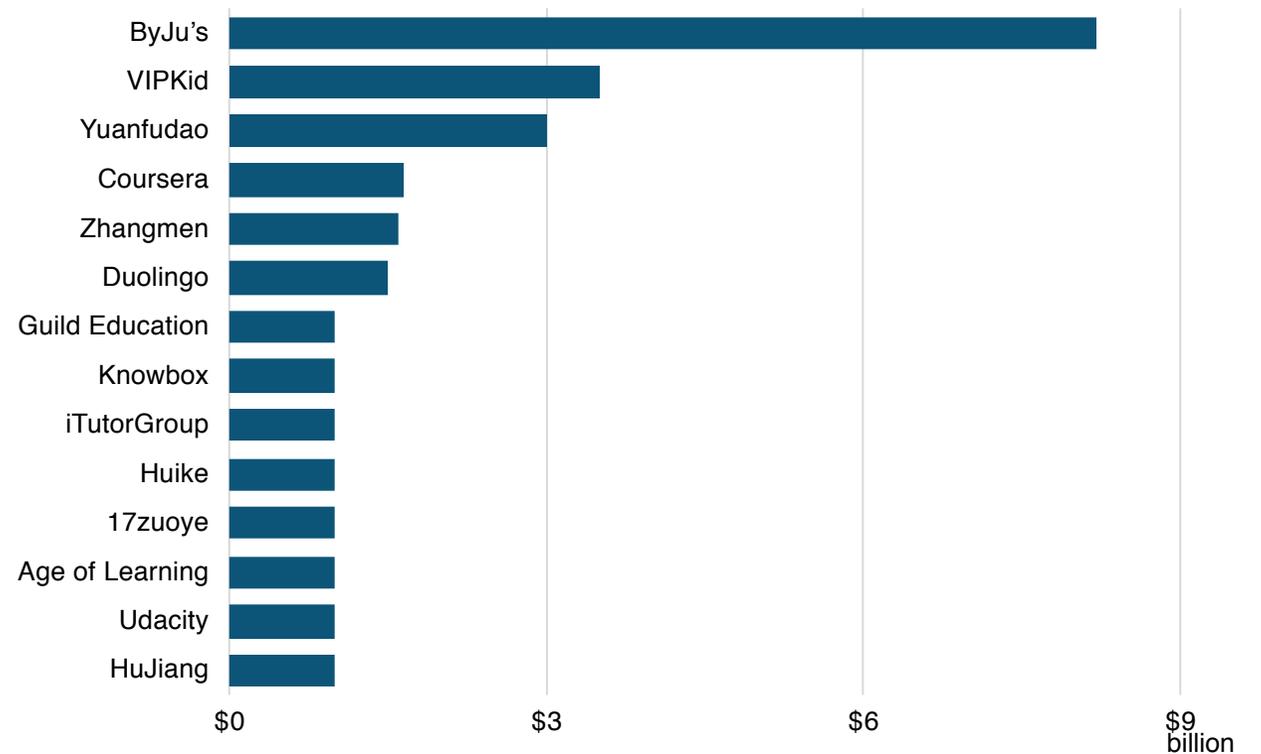
Edtech solutions exist across the spectrum of education.

- **Primary and secondary school edtech** primarily consists of tutoring, homework help, classroom social media, and online curricula.
- **Higher education-focused edtech** provides platforms for online learning, open source curricula, and massive open online courses (MOOCs).
- **Workforce training and personal skill development** is rapidly emerging as a priority in edtech. This takes many forms, including virtual courses for worker retraining and upskilling, personal skill acquisition platforms (such as language-learning apps), online mini-degrees and certifications, and “last-mile education” programs that help potential workers get the exact skills they need for specific, desirable jobs.

## The big names in edtech

HolonIQ, an education investment research platform, identifies 14 edtech unicorns—startups valued at \$1 billion or more. Eight of these are based in China. Five are in the US. One is in India. The most valuable of the bunch are ByJu’s, an Indian tutoring app; VIPKid, a Chinese site for teaching and learning English; Yuanfando, a Chinese tutoring site; Coursera, a US MOOC platform; Zhangmen, a Chinese tutoring site; and Duolingo, a US language-learning app.

**Edtech unicorn valuations**  
Unicorn status reported by HolonIQ

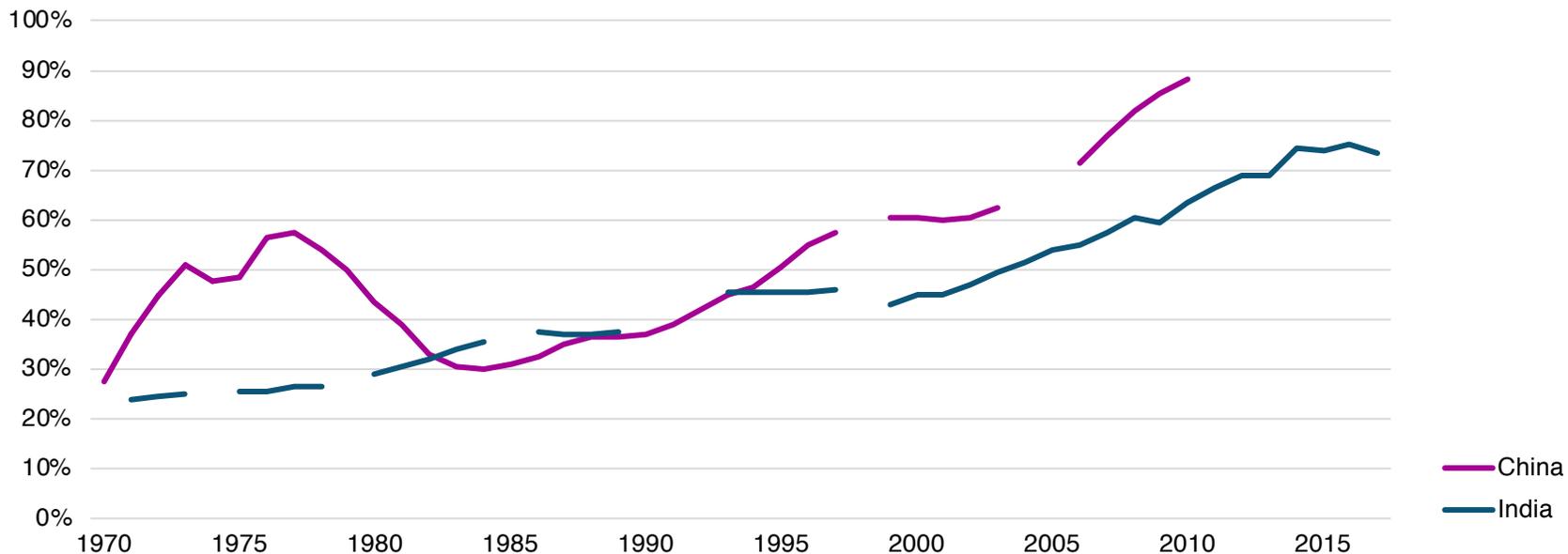


## For early learners, China and India are first in class

China and India account for 70% of global edtech VC investment. Their leadership is particularly strong when it comes to edtech solutions for primary and secondary school students, whose enrollment rates have increased dramatically. Parents' increased demand for tutoring services for their children is a major driver behind edtech's success in China and India—as well as Asia more generally. L.E.K Consulting estimates China's private tutoring industry brings in annual revenue of 1.6 trillion yuan (\$238 billion).

### Education is on the rise in the world's largest school systems

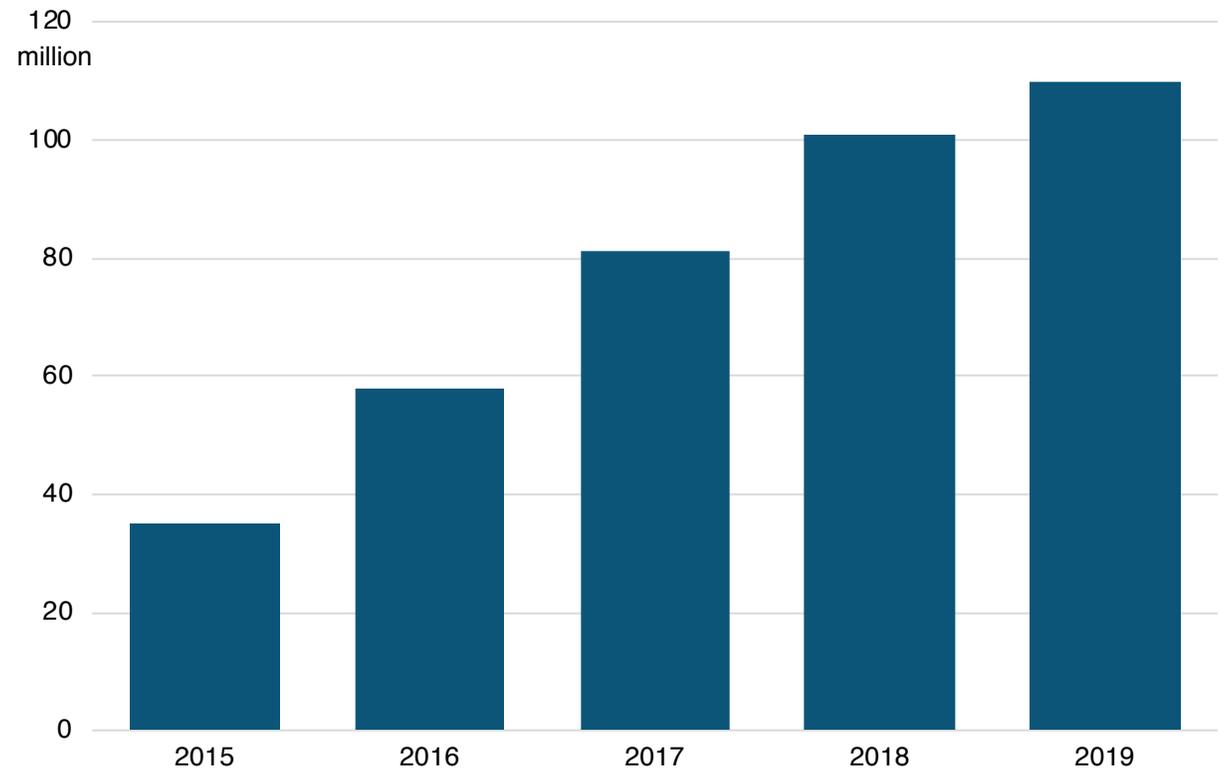
Secondary school gross enrollment rates for China and India, available years 1970-2017



## Taking higher ed online

As tutoring technology for primary and secondary students have dominated edtech in Asia, MOOCs are the face of edtech in the US. MOOC platforms connect universities and other MOOC providers with post-secondary learners of all ages who may be seeking anything from a one-off learning experience to academic credit for degree completion. Five companies dominate this sub-industry: Coursera (US), EdX (US), XuetangX (China), Udacity (US), and Future Learn (UK). Class Central reports that though new enrollment has declined, many top MOOC platforms report record revenue.

Students enrolled in MOOCs, 2015-2019



## From learners to workers

If the early years of edtech were marked by a focus on students in classrooms—virtual or not—the next phase of the industry will focus on workers and other part-time learners. Retraining and upskilling platforms are picking up steam around the world as employers and employees alike search for flexible, low-cost options for acquiring new, up-to-date skills.

**200**

The number of employer-tailored programs available online at Southern New Hampshire University, “the Amazon of education.”

**\$179 million**

Capital raised by Andela, a Nigerian edtech startup that recruits, trains, and hires distributed engineering teams for global firms.

**\$150**

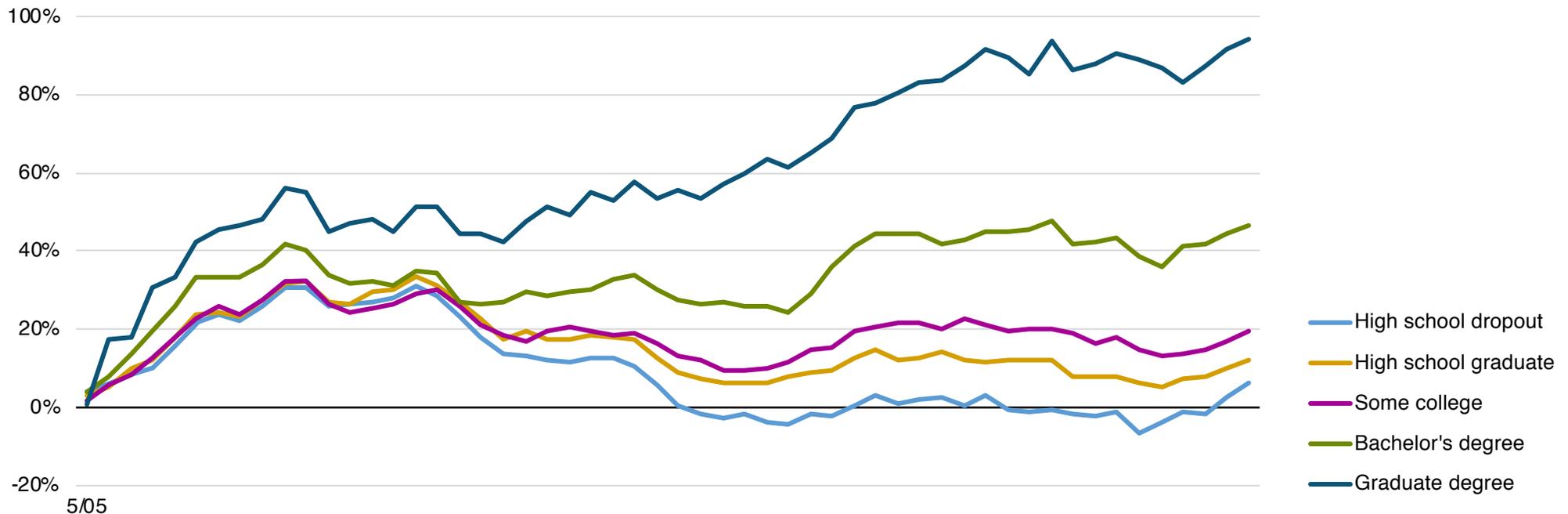
The maximum cost for Facebook’s Blueprint Certification exams, which are offered for seven courses in digital marketing.

## Does ed + tech = equality?

One promise of edtech is that it will distribute learning tools to people who previously lacked access—whether non-traditional college students in the US or early learners in China. Expanding access to education is especially important as wage gains are increasingly captured by the highly educated.

### The payoff of education in the US

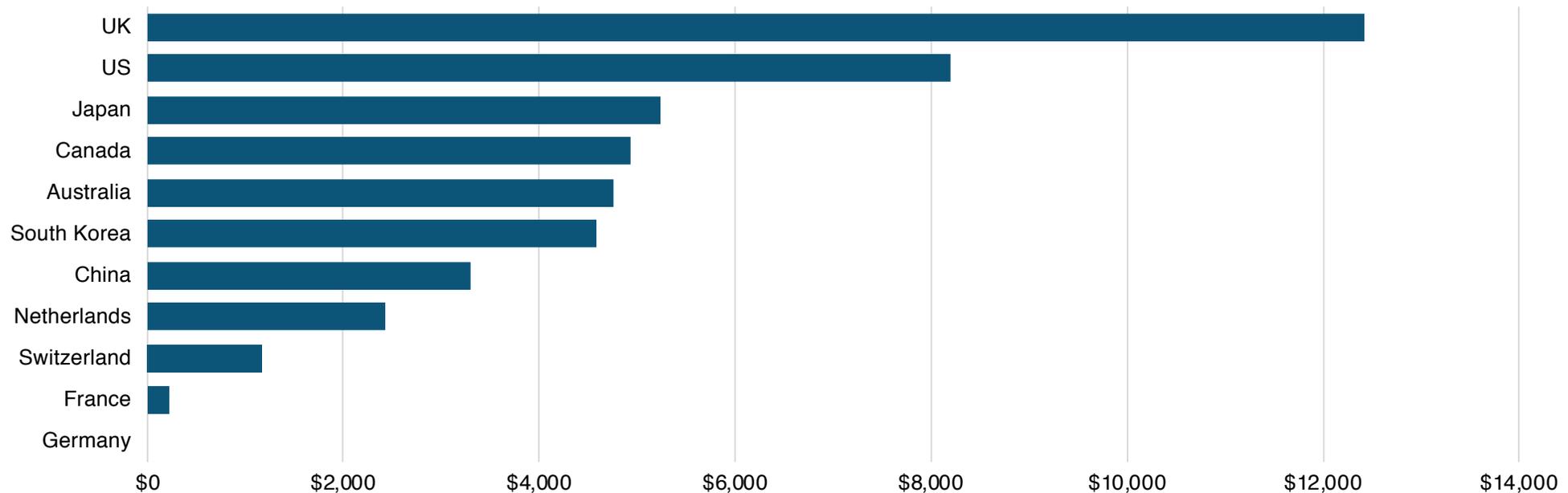
US wage growth by educational level since 1963



## One point in edtech's favor: The cost of traditional education

The high and rising cost of traditional education, particularly higher education, is one reason to think expanding educational access will require expanding edtech. With lower costs of enrollment delivery and fewer restrictions on who can join classes and when, MOOCs and online last-mile education programs offer an alternative to skyrocketing tuition and student debt.

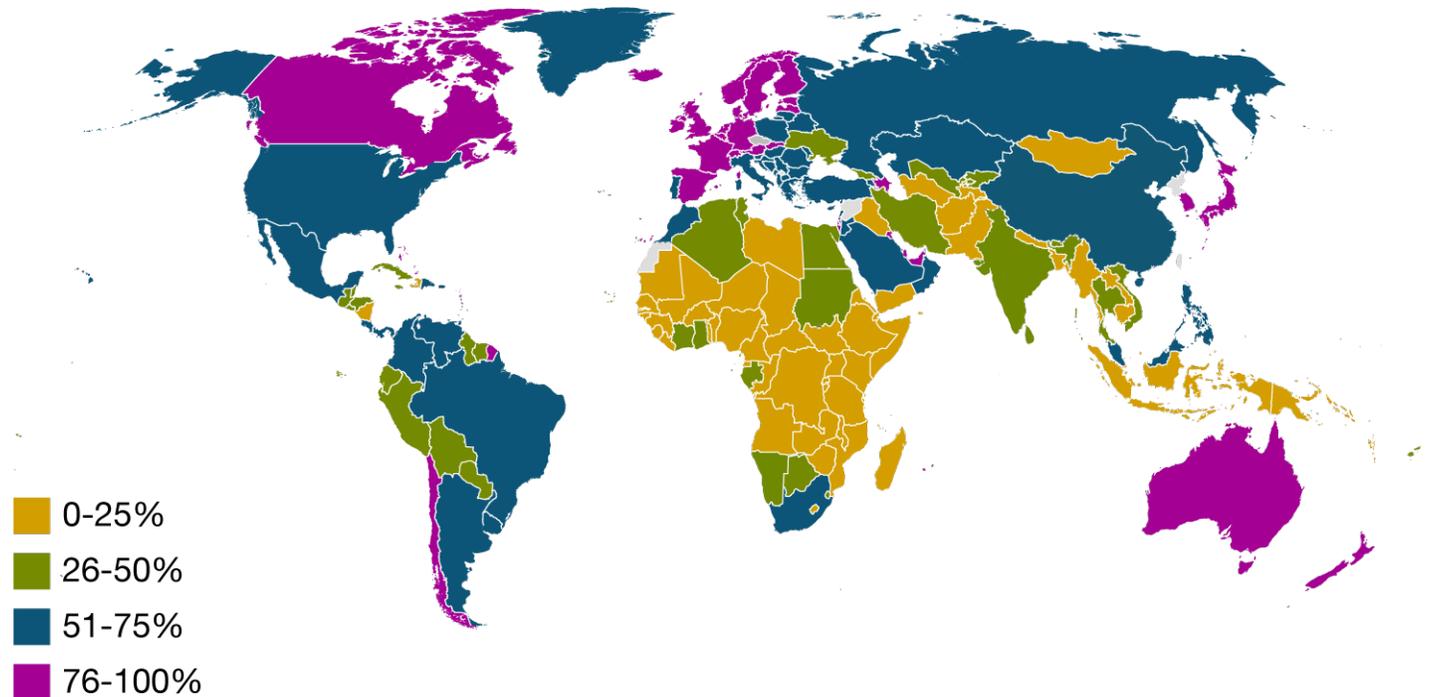
Average annual tuition at public colleges by country, 2017



## Edtech offline: The challenge of relying on tech as a tool

Edtech's efficacy as a tool of educational access is severely limited by its reliance on internet and computer access. While broadband and smartphones—the virtual equivalents of a blackboard and chalk—have expanded rapidly, many people around the world still lack access.

Share of population using the internet, 2015



Quartz | qz.com | Data:World Bank

## Want to know more? Read Quartz coverage of edtech.

- [With 290 million kids out of school, coronavirus is putting online learning to the test](#) – For the story on how Covid-19 created an unexpected experiment in mass virtual learning.
- [Digital innovators are trying to plug gaps in Nigeria's broken education system](#) – If you're interested in the potential of edtech to support under-resourced education systems.
- [Technology will change the meaning of intelligence](#) – For the big picture of how edtech fits into the future of education.
- [A British start-up will put AI into 700 schools in Belgium](#) – If you want to know what's next in edtech, beyond MOOCs and apps.

You'll also enjoy our member-exclusive field guide, [Beyond student debt](#) and our project on [The future of college](#).

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