EdTech Investment and Venture Capital

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The EdTech market for higher education (HE) is like any other out there - subject to the volatility of public and private sector funding. According to industry observers, one minute it is booming, the next investment is stagnating. EdTech's relationship with the global economy, however, doesn't change the fact that technology in education is here to stay. In fact, with the increasing adoption of augmented and virtual reality, robotics, adaptive learning, alongside blended and online modalities, technology in the HE sector is expected to experience real growth and innovation over the next few decades.[1] Thus, for many venture capitalists, investing in an EdTech start-up can be enticing. Moreover, despite funding fluctuations, EdTech investment continues to flow, and, as of 2017, flourish. The sector is still in its infancy and as a result there can be difficulty getting a clear projection of EdTech investment, with competing sources of information using different tools and definitions. Even the way 'EdTech' should be written is itself not universally agreed, for example, as some of the quotations that follow will show.

The current state of EdTech investment in HE

This section provides a critique and overview of the current state of EdTech investment in the HE sector, alongside insight into the lifecycle, successes and failures of EdTech start-ups.

Overview

"The last few years have been record-breaking for venture capital investment in ed-tech, to be sure," says education writer and independent scholar Audrey Watters. This view is consistent with current reports that, after a dip in 2016, EdTech investment in 2017 is experiencing an upsurge.[2] This is significant given 2015 saw unprecedented highs.[3]

But hard data figures can vary from source to source.[4] As someone with a keen, and often critical, eye on the EdTech market, we thought Watters was well positioned to shed some light on the reality of EdTech investment. On Hack Education, an EdTech publication she founded, she argues that basic assessments of the industry can be disconcertingly out of tune with the truth.[5] This view is supported by the CEO of Navitas Ventures (NV), Patrick Brothers. He wrote a scathing piece about an article in Tech Crunch expounding this very issue, arguing, "*the numbers are at best misleading, and, at worst, wildly inflated… the valuation of the edtech market at US$250 billion… it's a gross overestimation*".[6] A project conducted by NV found this number to be much closer to "*US$50 billion of existing investment*".

Watters believes these discrepancies are related to disagreement over "*what counts*" as EdTech.[7] She further contends that there is a willingness amongst journalists and industry observers, to spin the "*ed-tech boom to ed-tech bust*" tale, despite data suggesting otherwise.[8] Subsequently, Watters has taken it upon herself to track

1 Johnson, et al., "NMC Horizon Report: 2016 Higher Education Edition." 2016, goo.gl/d3dbsu.

2 Wan, "Fueled by Big Rounds, US Edtech Funding Surges to $887M in First Half of 2017."*EdSurge*, 2017, goo.gl/1GGcTH.
3 Watters, "The Business of Ed-Tech: 2017 So Far." Hack Education, 2017, goo.gl/X7DVce.
4 Ibid.
5 Ibid.
6 Brothers, "Forget What You've Been Told About Edtech." *Tech Crunch*, 2017, goo.gl/pBcnzz.
7 Watters, "The Business of Ed-Tech: 2017 So Far."
8 Watters, "Top Ed-Tech Trends of 2015." *Hack Education*, 2015, goo.gl/Aq9UAm.

the data and provide her own assessment.[9]

Hack Education's assessment of the state of EdTech investment from January to July 2017:

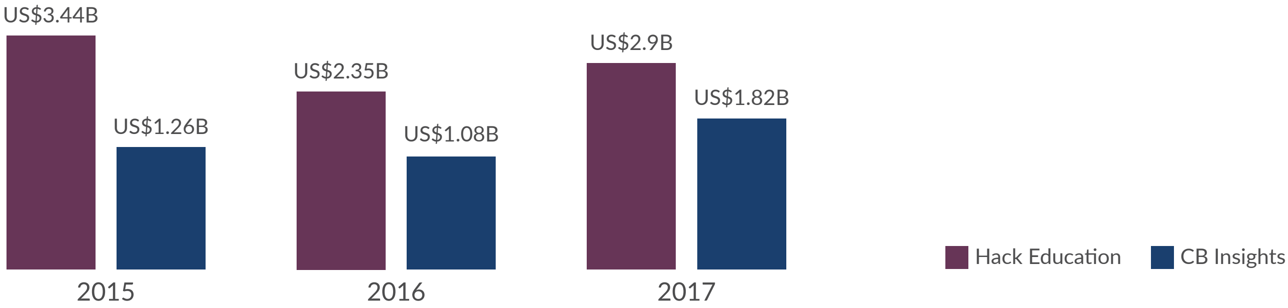
- As of July 2017, US$1.8 billion has been accrued by 95 investments in EdTech companies. This figure includes student loan companies.[10]
- The average investment this year has been US$21.2 million and the median investment size is US$4 million.[11]

enormous amount of investment going into ed-tech, that growth is being driven by a small number of very large investments – there have been nine of $100 million or more. It remains to be seen how this consolidation will affect ed-tech companies big and small (and how and if, in turn, this will affect education)."

Founder of EdTech Europe, Benjamin Vedrenne-Cloquet, agrees.

"EdTech as a sector is still largely under-invested. Last year

Here is a comparison of the year on year figures from Hack Education and CB Insights:



Sources: Brothers, "Forget What You've Been Told About Edtech.", CBINSIGHTS, "Ed Tech Deals On The Rebound."

However, these figures clash with other sources, including CB Insights and EdSurge.[12]

Despite the variables between these sources, they follow the same overall projection; EdTech investment peaked in 2015, before experiencing a dip in 2016 and then a sudden resurgence to record highs in 2017.

"Investment has occurred alongside a drop in public funding," Watters argues, *"and it's hard to say if that money has made ed-tech better -- or better ed-tech."*

"The last few years have brought about a consolidation of sorts in the industry. Or at least, while there's still an

EdTech received less investment from venture capital than the gaming industry… Yet education is 60 times the size of gaming," he told us. This suggests that, despite the money being poured into EdTech, it is still considered high risk - and, thus, is coming from a minority of companies within the venture capital market.

Who is investing?

The advancement of technology is being shaped by consumer-based companies like Apple, Google, Microsoft, Sony and Facebook, who are investing big money into human-computer interaction and subsequently driving such innovation within the HE sector.[13] This investment will change the world we live

9 Watters, "The Business of Ed-Tech: 2017 So Far."
10 Ibid.
11 Ibid.
12 Brothers, "Forget What You've Been Told About Edtech."

13 Kelly, "11 Ed Tech Trends to Watch in 2017." *Campus Technology*, 2017, goo.gl/4EyrdL.

CB Insights found the top three investors are:

1. NewSchools Venture Fund

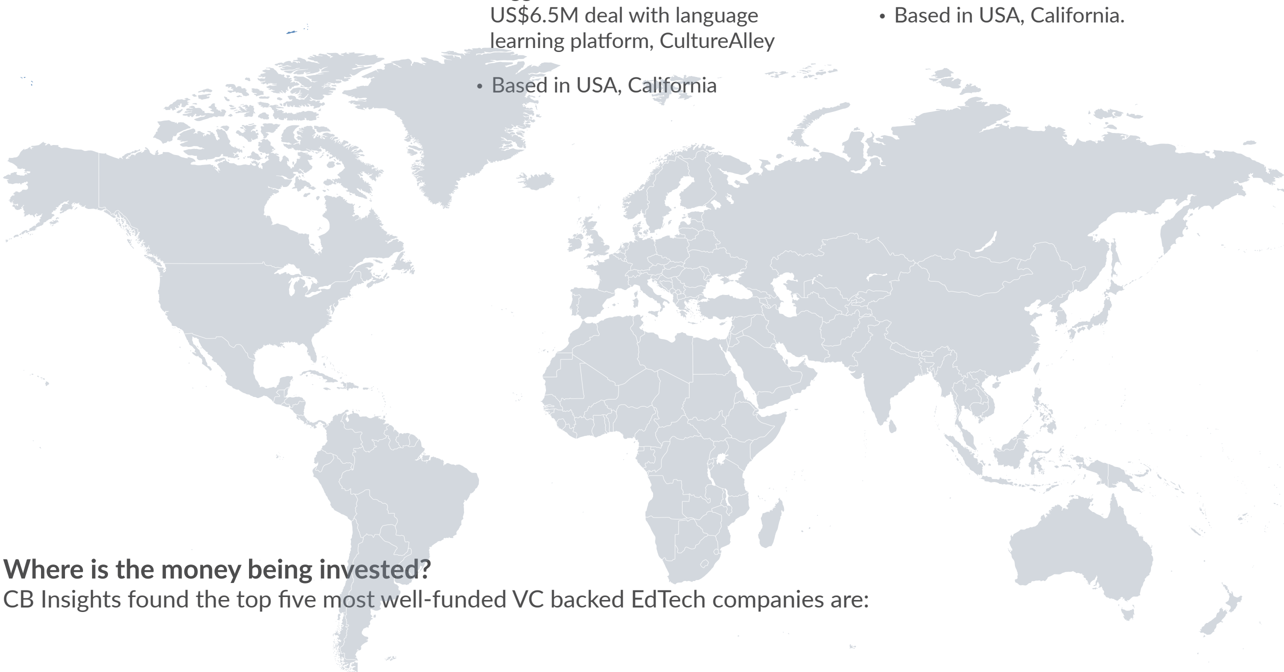
- A non-profit Venture Capital firm
- Focuses on K-12 education
- Based in USA, California

2. 500 Startups

- The second top investor, and highest for HE
- Since 2012, 500 Startups has invested in over 25 EdTech start-ups
- Invests mainly in 'early stage' and 'unique' EdTech companies
- Biggest investment to date was a US$6.5M deal with language learning platform, CultureAlley
- Based in USA, California

3. Learn Capital

- Funds solely educational start-ups
- Since 2012, has funded over 24 EdTech companies, including some of the most highly invested start-ups such as; Coursera, AltSchool, and Udemy
- Made US$7M deal with Edunav in 2016, a 'class-planning tool for college students'
- Based in USA, California.



Where is the money being invested?

CB Insights found the top five most well-funded VC backed EdTech companies are:

1. TutorGroup

- Disclosed funding US$315M
- Select Investors: Alibaba Group, Qiming, Venture Partners, Goldman Sachs
- Based in China, Shanghai

2. HotChalk

- Disclosed funding US$249M
- Select Investors: Berterlsmann, McGraw-Hill Ventures, Mohr Davidow Ventures
- Based in USA, California

3. Pluralsight

- Disclosed funding US$208M
- Select Investors: Insight Venture Partners. Rethink Education, Felicis Ventures
- Based in USA, Utah

4. Udemy

- Disclosed funding US$173M
- Select Investors: MHS Capital, Insight Venture Partners, 500 Startups, Norwest Venture Partners
- Based in USA, Silicon Valley

5. Desire2Learn (D2L)

- Disclosed funding US$165M
- Select Investors: NEA, OMERS Ventures
- Based in Canada, Ontario

*CBINSIGHTS White Paper, "Analyzing Ed Tech Performance: A data-driven look at ed tech deals and funding activity." 2017, goo.gl/zykWsN. p. 34.

in, the way in which we interact with each other and the technology we use; shaping not just the investment market but government budgets, entrepreneurs, students and society more broadly. The possibilities for EdTech tools to collate such AI technologies as machine learning, natural language processing and chat bots, with innovative applications of augmented and virtual reality, are endless.[14]

Sources of investment include venture capital, government funding and 'philanthropy', one such endeavour being the Gates Foundation.[15] However, Watters points out that philanthropy can be "*profoundly anti-democratic*", quoting The New Yorker's statement that "*people like Zuckerberg and Gates, by virtue of their philanthropic efforts, can have a much bigger say in determining policy outcomes than ordinary citizens can*".[16]

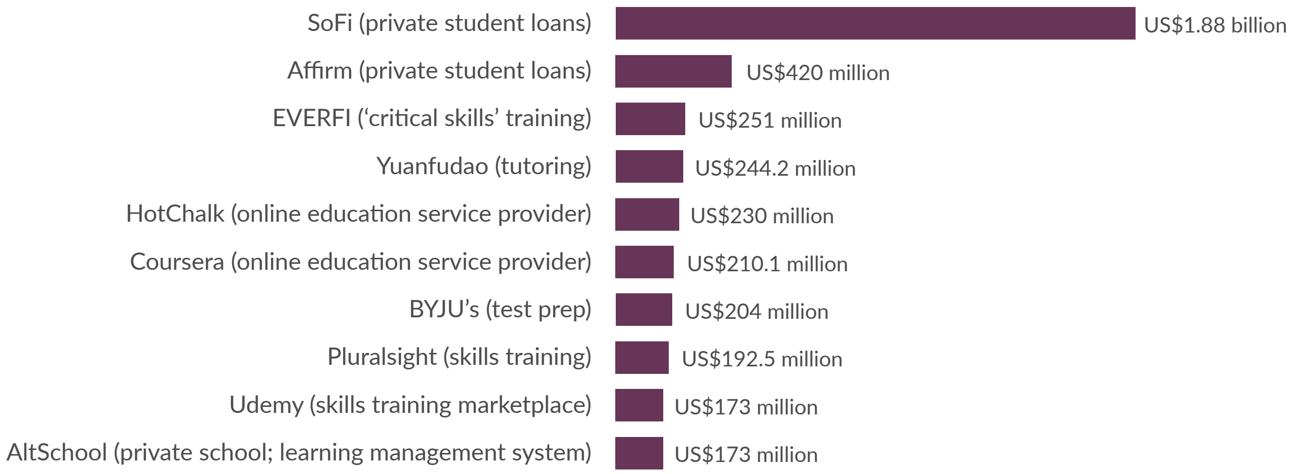
Watters also questions whether venture capitalists and other 'sophisticated' investors like Gates and Zuckerberg, "*controlling large private equity and hedge funds, have any moral or ethical responsibility for the investments they make.*"[17] She argues the role of ethics must be considered when looking at issues like cyber bullying and the potential for products to "*exacerbate educational inequalities*."[18] This is further compounded by the propensity of both industry observers and journalists (who may often be 'supported' by the technology industry), and entrepreneurs, to exaggerate funding claims.[19] Such contentions raise interesting questions - no point has been established about the relationship between technology, capitalism and education.

Regional breakdown

"*EdTech investments are increasingly mostly driven by Asian investments and rising interests for Adaptive Learning in Education*," says EdTech Europe founder Benjamin Vedrenne-Cloquet.

As can be seen from the above list, the majority of the most well-funded VC-backed EdTech companies are based in the US. However, TutorGroup, based in China, is number one, highlighting Asia's growing role within

Hack Education's 2017 Top Ten Most Well-Funded EdTech Start-ups:*



14 Ibid.
15 Watters, "The Business of Ed-Tech: 2017 So Far."
16 Ibid.
17 Ibid.
18 Ibid.
19 Watters, "Top Ed-Tech Trends of 2015."

the EdTech market. In 2016, the Chinese government invested US$1 billion in EdTech and has pledged to invest a further US$30 billion by 2020.[20] Patrick Brothers points out that this money "*is earmarked for technology generally, not start-ups specifically*."[21]

Nonetheless, as Vedrenne-Cloquet shared, industry observers should "*... watch out for China. They are about to become the largest investors, with 40% of the global venture capital in edtech.*" Deals in India are also driving the global scope of EdTech investment, ranking second outside the US in 2016 with China third, hence also contributing to the rise of Asia as a serious competitor to the West.[22] The remaining cohort of global EdTech deals are dispersed throughout a wider array of markets.[23] The UK, in fourth place, takes just 63, whilst no other country worldwide accrues more than 40.[24]

Furthermore, the US's monopoly on global EdTech start-up deals has declined, from over 80% in 2011 to 60% in 2015.[25] But funding to EdTech start-ups is still "*concentrated in the US*" accounting for over 1,300 deals between 2011-2016, which amounts to 67%.[26] In sum, according to CB Insights "*US remains dominant, China captures more dollars than deals.*"[27]

The life, death and success of EdTech start-ups

Start-ups, on average, have famously fleeting life-spans, with 80%-90% failing in their first year.[28] Those that do well have the power to mould the EdTech investment market. Whilst it is debated whether private student loan companies have a status as 'EdTech', they are currently receiving the lion's share from start-up investors.[29] The largest investment in 2017 to a non-student loans company went to Washington-based start-up EVERFI; US$190M was drawn from The Rise Fund, alongside existing investors.[30] EVERFI offers a digital learning platform catered for the HE sector, corporations, K12, sports leagues and non-profits.[31] New investors in EVERFI included tycoons such as the Amazon CEO Jeff Bezos and U2's Bono, demonstrating the current appeal of the EdTech market.[32]

In July 2017, Hack Education discussed how early-stage companies have contributed to half of deals so far this year.[33] Despite this, the majority of investment was still concentrated within the 'late stage' companies.[34] US$55M was invested in companies raising seed funding, whilst those in the later stages, referred to as C, D and F funding rounds, have raised over US$1 billion.[35]

But what exactly - from seed to later stages - makes for a successful EdTech start-up? What makes investors pour millions into fledgling companies with no guarantee of a big return? We asked several industry experts to provide insight into these questions.

Esther Wojcicki is an educator, journalist and information technology & Open Educational Resources consultant.

She suggested four main criteria typical of successful EdTech start-ups:

1. They have to meet the needs of the teacher and the classroom. Do some real research first. The main interests today include adaptive learning, robotics and the Internet of Things.
2. They need to test their product with real students

20 Brothers, "Forget What You've Been Told About Edtech."
21 Ibid.
22 CBINSIGHTS White Paper, "Analyzing Ed Tech Performance." pp. 12/13.
23 Ibid p. 13.
24 Ibid p. 13.
25 Ibid p. 12.
26 Ibid p. 13.
27 Ibid p. 13.
28 Watters, "Top Ed-Tech Trends of 2015."

29 Watters, "The Business of Ed-Tech: 2017 So Far."
30 CBINSIGHTS, "Ed Tech Deals On The Rebound."
31 CBINSIGHTS, "Ed Tech Deals On The Rebound."
32 CBINSIGHTS, "Ed Tech Deals On The Rebound."
33 Ibid.
34 Ibid.
35 Ibid.

and teachers and not hypothesize.

3. The founders need grit because working with the schools and universities is tough.
4. They need a committed team that work well together under trying circumstances.

Wojcicki also suggested five main criteria for the demise of a start-up:

1. Their product enters an already crowded field - too many products doing the same thing.
2. The product requires too much professional development to use it, so teachers can't use it easily.
3. It is priced too high for the schools.
4. They cannot get the necessary funding.
5. The CEO and team don't understand education and don't hire teachers as consultants. They think since they went to school, or they have kids at school, that they know the market.

When will I see the ROI?

"*You can pay all sorts of lip service to 'mission-based' or 'impact' investing. But at the end of the day, the point is still to make money*," says Audrey Watters.

Start-ups are high risk endeavours for venture capitalists and other investors looking to generate a fast, and a large, return.[36] But industry experts such as Watters and Benjamin Vedrenne-Cloquet argue this kind of attitude is not necessarily conducive to receiving a ROI on EdTech start-ups.

"*Think of a long, rising tide - not an avalanche*," suggests Vedrenne-Cloquet, "*Distribution and timing of adoption are key. Digital transition in education, although a powerful trend, is five times slower than in other sectors undergoing a digital transition. What this means for start-ups is that they have to brace for a slow and long sale cycle unless they operate in the direct to consumer space.*" And what this, in turn, means for investors, is that they won't necessarily see an ROI immediately.

For instance, the USD$1.5 billion sale of Lynda.com to LinkedIn is the most high-profile exit in EdTech history and this was '20 years in the making.'[37] As Tony Wan argues in EdSurge, "*Big returns require patience—an attribute that investors rarely share*."[38]

> *"Start-ups are incompatible with education in almost every way,"... "Start-ups - technology start-ups - are high growth, high risk endeavours. That's why venture capitalists invest in them. The goal, once raising venture capital, is to 'exit' - to be acquired or (much less regularly in ed-tech) to go public."... [this timeline] "between the first round of venture capital and the push from venture capitalists for a return on their investment - is short."*

Audrey Watters
Education Writer and Independent Scholar

36 Wan, "Fueled by Big Rounds, US Edtech Funding Surges to $887M in First Half of 2017."

37 Wan, "Fueled by Big Rounds, US Edtech Funding Surges to $887M in First Half of 2017."
38 Ibid.

"*Start-ups are incompatible with education in almost every way,*" agrees Watters, "*Start-ups - technology start-ups - are high growth, high risk endeavours. That's why venture capitalists invest in them. The goal, once raising venture capital, is to 'exit' - to be acquired or (much less regularly in ed-tech) to go public.*" Watters argues that this timeline "*between the first round of venture capital and the push from venture capitalists for a return on their investment - is short.*"

In contrast, "*... the timeline for education is slower- thirteen years of K-12, two to five for college, and so on. The timeline for seeing a return on that investment - the investment we make in an individual's education - might be even slower.*"

"*It's hard to say when a seed planted in elementary school, for example, - a passion for music, a love of reading, a curiosity about science - has an 'ROI,', and that isn't simply a matter of money or profits. But for a for-profit company and for a venture capitalist, that is what matters,*" Watters explains. This, in part, could explain why investors are far more likely to invest in late stage companies than early stage ones – and why, more significantly, EdTech as a sector is notoriously underinvested in. Those looking to make a quick buck may find themselves disappointed, but investors with a longer-term ROI perspective have the potential to experience greater gains.

Tackling funding challenges

When asked what the main funding challenges EdTech start-ups are likely to face, our interviewees' advice took different paths.

According to Esther Wojcicki:

1. It is hard to raise funding unless you can show that the product is in demand and will actually be adopted by many schools and universities. Many products out there look good but in fact if the schools can't adopt them easily, then it a losing proposition.
2. Don't forget to run the product by teachers and administrators first.
3. Most schools have inconsistent funding which means that they will drop you even if you have a great product because they don't have the money.
4. The price of the product must be competitive. It is difficult to sell an expensive product even if it is great, unless it is really great.

Audrey Watters highlights a philosophical aspect:

1. Convincing investors that the mundane is important isn't easy. Technology products won't solve the knottiest problems in education - but in order to pitch your 'world-changing' idea to an investor, you often have to couch it in these sorts of terms.
2. It's even less easy to convince investors and start-ups, that what they are doing might be more damaging than disruptive.
3. The biggest challenge, arguably, is building an EdTech company that does not exacerbate the educational inequalities that already exist.

CASE STUDY

StudySoup

StudySoup was founded in 2014 by Sieva Kozinsky and Jeff Silverman in California, USA.[1] It has been identified by Forbes as one of the top ten EdTech companies "that are contributing to the global edtech ecosystem."[2] It is an online marketplace for university students, providing 'peer-to-peer' learning.[3] The StudySoup marketplace offers a platform for students to post notes and study guides for a fee, allowing them to engage in a student-led learning environment whilst also making an income.[4]

Kozinsky and Silverman co-founded StudySoup when they were students themselves.[5] Simultaneously possessing an entrepreneurial spirit, a distaste for the financial burden of student life, and a desire for change, the co-founders began looking for answers.[6] This give-and-take solution enables students to help one another and tackle their student debt at the same time.

Key Achievements:

- StudySoup has received $1.7M of investment in seed funding.
- StudySoup is an accomplice of the 500 Startups accelerator
- In 2016, revenue surpassed $1M.
- StudySoup has over half a million student users across America.
- Some students have sold over $1000 of content per class.

1 StudySoup, "About Us." StudySoup, goo.gl/5ygeXu.
2 Shulman, "Global EdTech Investments And Outlook: 10 EdTech Companies You Should Know About." Forbes, 2017, goo.gl/MVHH1m.
3 StudySoup, "About Us."
4 Shulman, "Global EdTech Investments And Outlook."
5 Shulman, "Global EdTech Investments And Outlook."
6 StudySoup, "About Us."

BIBLIOGRAPHY

Brothers, Patrick. "Forget What You've Been Told About Edtech." *Tech Crunch*, 22 Sep. 2017, goo.gl/pBcnzz. Accessed 9 October 2017.

CBINSIGHTS, "Ed Tech Deals On The Rebound." *CBINSIGHTS*, 14 Jun. 2017, goo.gl/dikdu9. Accessed 9 October 2017.

CBINSIGHTS White Paper, "Analyzing Ed Tech Performance: A data-driven look at ed tech deals and funding activity." *CBINSIGHTS*, Jun. 2017, goo.gl/zykWsN. Accessed 9 October 2017.

Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., and Hall, C. "NMC Horizon Report: 2016 Higher Education Edition." *Austin, Texas: The New Media Consortium*, 2016, goo.gl/d3dbsu. Accessed 6 September 2017.

Kelly, Rhea. "11 Ed Tech Trends to Watch in 2017." *Campus Technology*, 18 Jan. 2017, goo.gl/4EyrdL. Accessed 9 October 2017.

Shulman, Robyn. "Global EdTech Investments And Outlook: 10 EdTech Companies You Should Know About." *Forbes*, 17 May. 2017, goo.gl/MVHH1m. Accessed 9 October 2017.

StudySoup, "About Us." *StudySoup*, goo.gl/5ygeXu. Accessed 9 October 2017.

Wan, Tony. "Fueled by Big Rounds, US Edtech Funding Surges to $887M in First Half of 2017." *EdSurge*, 24 Jul. 2017, goo.gl/1GGcTH. Accessed 9 October 2017.

Watters, Audrey. "The Business of Ed-Tech: 2017 So Far." *Hack Education*, 01 Jul. 2017, goo.gl/X7DVce. Accessed 9 October 2017.

Watters, Audrey. "Top Ed-Tech Trends of 2015." *Hack Education*, 23 Dec. 2015, goo.gl/Aq9UAm. Accessed 9 October 2017.

ABOUT QS

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