Tuition changes: how Edtech startups affect state tech education

Today's realities are striking in their unpredictability. No sooner have people recovered from the coronavirus pandemic than a full-scale Russian attack occurs in Ukraine, and the entire civilised world is involved in the fight against terrorism.

In this struggle, the tech sector plays an important role: it keeps the world's economy afloat, develops tech products that help in the war against a terrorist country, and gives those who lost their jobs due to another economic crisis the opportunity to change their profession. Therefore, the need for quality tech specialists is growing exponentially, and this demand is being met not only thanks to state universities but also to Edtech companies. While state universities still do not perceive edtech as a competitor, the intersection of these players' activities is becoming closer every day.

Edtech vs State tech universities: overall comparison

Specialised material & fundamental theory

Usually, edtech startups are focused on providing practical knowledge that will help a person get a job in a shorter time.

Universities often train people for high positions in the long term. Because of this, their curriculum includes everything from the basics to complex issues of architecture, management, governance, philosophy, etc. However, for people without practical experience, it is highly difficult to comprehend the purpose of this knowledge. Consequently, they spend a lot of time on information they can't use yet, and if they can, it will be a long way off.

Of course, the study of fundamental knowledge gives a broader picture. It will be easier for a graduate of a technical university to rise to a high position than a graduate of a bootcamp. However, people need to start with what they want to do in life:

> If you are creating a product that people will use, you don't need to know the fundamentals (for example, how a processor works).

> If you deal with high-tech and complex tasks, such as retail or data science, you need to spend more time on theoretical knowledge.

However, in real life, only a low percentage of the market is engaged in true research. Looking back at Google's experience, it's 2-5% of employees. The rest do product tasks.

Average quality of education

Edtech startups, especially bootcamps, standardise the program so that the quality of learning does not depend on subjective factors. In addition to a lecturer who communicates with the student in-person , there are videos and theories, and assignments are assigned automatically also. In addition, there are tech specialists who review the work done by the student.

In addition, the edtech industry is as automated as possible. Students are provided with access to education under any circumstances due to the online format.

At university, one person's experience can be excellent and another's negative; it depends on the teacher. All this affects the average quality of education. In a bootcamp, it will definitely be higher and more predictable.

Theoreticians vs. Practitioners

Teachers matter. This fact is obvious. However, the person teaching students the profession is even more significant, whether they are a theorist or a practitioner. In an edtech startup, trainers or mentors work in the industry and immediately prepare students for tasks from working realities. For example, mentors and trainers at Mate academy are the developers of our LMS platform. They spend 50% of their time working with bootcamp students and 50%

working as engineers.

Universities are taught by theorists mostly. They are stronger in fundamental theory than compared with engineers.

Community

Community is an important thing. Edtech startups are inferior to universities in this regard. If students choose to study at university, they will be a part of this community. In particular, thanks to the campus. Students at bootcamps will have their own community while studying, mainly online. However, it will be a much narrower circle.

Global changes with the edtech advent

Fulfillment of labor market needs

Universities do not scale well, so they cannot fulfill market needs. Every year they produce about the same number of people, but the demand for the tech sector has grown significantly from the beginning of 2000 to 2023. Edtech directly manages to meet the ever-growing demand for the number of programmers in the world.

Universities are evolving

Competition is always good for the end user. It encourages both universities and edtechs to become better. Accordingly, they provide a better product. In particular, universities are becoming more progressive and technologically advanced, implementing LMS systems in their education.

Increased speed of knowledge distribution

The speed of knowledge dissemination is increasing. You can watch online courses from Harvard or MIT universities for free without being a student at these universities. In the case of programming, thanks to edtech, you can get a high-paying programmer's job in 4-6 months. For example, a graduate of a bootcamp for a junior position in the UK will receive an average of £60K per year. There are not many other professions where you can earn a similar salary without experience.

Starting a career in tech without a computer science degree is a new normal

The practice of not getting a higher education is only growing from year to year, and this trend will definitely become stronger. I would like to mention the Thiel Fellowship, which awards a student $100K to not go to university, but to

create useful and cool products.

FAANG companies also aren't interested in whether their employees have a degree from a public university. Google's research, described in Laszlo Bock's book "Work Rules," shows that six months after starting at Google, employees' productivity does not depend on whether they graduated from Stanford or some local tech school. All that matters is the programmer's own efforts.

Bootcamp + training + experience = a person who can get a job at a FAANG company. A university degree is not a mandatory criterion here.

For example, Google has a very standardised interview process. It is documented and well-known. It is built on basic computer science knowledge that can be obtained at a university or in a bootcamp. After both the university and bootcamp, you will need to prepare for the Google interview by solving 300 tasks on LeetCode, reading the "Cracking the coding interview" book, and asking one of the engineers you know to conduct a simulated interview. When I was a team lead at Google, my team included a bootcamp graduate with no technical education. This did not prevent him from being a competent programmer.

Edtech helps to save time and money

People who change careers have two options: go to university or try to learn something new in a shorter time. Bootcamps teach more intensively and faster than a university.

When you are 18 years old, university is an interesting stage. Socialization, adulthood, and only then do you think about getting a technical degree.

People who have a few professions behind them have already developed soft skills. They have experience in teamwork and don't need extra socialisation. Their only desire is to learn a new sphere as soon as possible, not to get additional university perks like community and campus life. So for them, bootcamps make sense in terms of saving time and money.

For instance, 70% of Mate academy graduates are people who changed their previous profession and started a career in technology. Developer Amit from India used to work as an administrator. Coder Lukasz from Poland used to be a supermarket salesperson. Engineer Max used to be a diver. All of them are now skilled developers.

So, allies or competitors?

The edtech startups' influence should not be weakened or downplayed in comparison with classic technical colleges. Today, these are two absolutely

self-sufficient players that have an equal impact on the technical education system in the world. Edtech has confidently taken the lead in a niche of the educational system that technical universities have never prioritised in their work, and is gaining a stronger foothold every year with focusing on high-quality practical product knowledge.

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