

GEOGRAPHICAL INSIGHTS

INDIA

According to industry experts, the future of education in India will depend on online courses. Currently half of the population is actually under 25 years of age and India is expected to be facing a shortage of 250 million skilled workers by 2022.

As of 2015, India is already the second largest market for eLearning after the United States. However, in terms of revenue India is ranked fourth by Ambient Insight in the top seventeen eLearning buying countries in 2016.

The sector is expected to reach \$1.29 billion by 2018, growing at 17% CAGR (Trade & Investment Queensland)

This can be attributed to increasing regulatory initiatives such as government funded literacy development projects in small villages and rural areas. This measure is forecast to drive the industry demand in the region.³

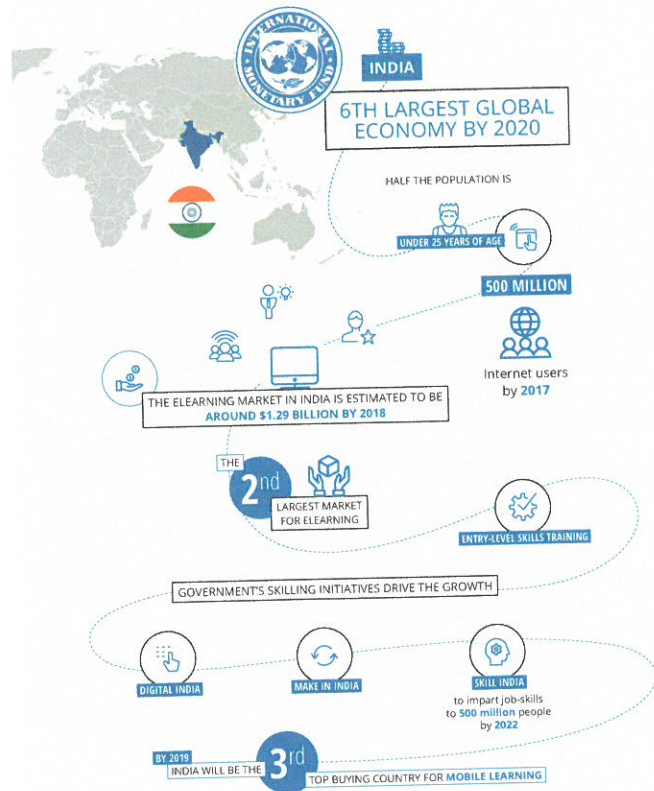
Corporate training market is disproportionately small, with estimated spends of only 1-2% of employee costs and a total outlay of less than \$1 billion.

Given the inadequacies in India's current education system that does not adequately provide for vocational and employment ready skills, a significant portion of organizational training budgets, even at leading IT services companies, goes towards entry-level skill building. Infosys, for example, has vast resources and an entire campus in Mysore, dedicated to training 25,000+ fresh recruits for 3-6 months every year.

Even the government's skilling initiatives are entirely focused on imparting employability related skills for millions of working age youth. There is an ambitious initiative underway to impart job skills to 500 million people by 2022 under the Skill India Mission. India internet users are expected to reach 500 million by 2017, of which nearly 2/3rds are expected to be on mobile. Mobile learning is going to have a massive impact on the training industry in India. According to Ambient Insight, by 2019 India will be the third top buying country for mobile learning China.

³ The economic journal Business Standard reports an 8-growth of eLearning market in India for 2016 estimated to be around \$3 billion. http://www.business-standard.com/article/companies/online-education-the-next-big-thing-in-india-11507060730_1.html

⁴ Source: Global Market Insights. <http://www.business-standard.com/article/technology/e-learning-market>



CHINA

According to Technode, more people are willing to pay for professional exam preparation and testing principally because China's population is growing and there is increasing competition for reliable jobs. The online education market is growing at a fast rate to meet the increasing demand. In 2016 China was ranked 2nd by Ambient Insight between the top buying countries for self-paced eLearning.

THE REVENUE BREAKDOWN BY PRODUCT FOR 2016 IS (IN US\$ MILLIONS)

CHINA BUYER SEGMENT	2016
Consumer	\$959.97
Corporation & Businesses	\$1,246.27
PreK-12 Academic	\$1,583.10
Higher Education	\$698.92
Federal Education	\$509.46
Provincial and Municipal Governments	\$265.25
Totals	\$5,262.98

Consumers in China are driving the growth of mobile learning market. Mobile penetration rates are overwhelmingly higher than PC penetration rates in China.

"In the US and Europe, you have one billion people who started using the internet on PCs," MOX managing director and SaaS partner William Bao Bean tells Tech in Asia. "In China, one billion people will soon be online, first on mobile - the largest, mobile-only population in the world. That's the next billion."⁵

According to Ambient Insight, there are two major trends in China's eLearning market: the proliferation (and fall rate) of online education startups and the growing number of large Internet companies entering the market.

Baidu, Alibaba, and Tencent are the largest Internet companies in China. They all entered the commercial eLearning and mobile learning markets in 2013 and 2014 and all of them are now adding mobile features or moving completely to mobile formats.

⁵ <http://www.technode.com/news/demo-ty-startup-10-16>

CHINESE MOOC



As shown in the figure below, the majority of online education users in China are professionals (77.2%), followed by junior college students (15.9%) and other users (6.9%).

ACADEMIC DISTRIBUTION OF ONLINE EDUCATION USERS



Source: 2016 China Online Education User Behavior Analysis Report by China Post Network

MOBILE-ENABLED PROCESS ADOPTION

MAJOR MOBILE-ENABLED HR PROCESSES	WORKFORCE USING	
	TODAY	IN 12 MONTHS
ADMINISTRATIVE	15%	33%
HR Management/Record Keeping	11%	31%
Payroll	19%	35%
WORKFORCE MANAGEMENT	8%	25%
Time and Labor/Time and Attendance	7%	24%
Leave Management	8%	27%
Absence Management	8%	26%
Workforce Scheduling/Labor scheduling	7%	23%
TALENT MANAGEMENT	20%	37%
Recruiting	17%	31%
Performance Management/Goal Management	25%	49%
Learning and Development	24%	37%
Compensation	20%	39%
Succession Planning/Management	13%	32%
Business Intelligence/Workforce Analytics	4%	13%
Average Workforce Adoption across all Mobile-enabled Processes	13%	27%

Source: Cerco Group

The latest innovations in mobile learning include next-generation Location-based Learning, Real-time Performance and Decision Support, mobile learning Value Added Services (VAS), and most recently, Augmented Reality mobile learning.



MICROLEARNING

Microlearning is often referred to as bite-sized learning. It is a short learning nugget (three to five minutes in length, or shorter) designed to meet a specific learning outcome. While it can be used for formal training, it is majorly used in informal learning (with a focus on performance gain).

Microlearning nuggets are designed for and delivered in rich media formats. Their brevity and accessibility on multiple devices (including smartphones, tablets, desktops, and laptops) makes them an ideal fit for just-in-time training. Corporations can use microlearning for formal training, as well as for learning on the job. Microlearning is ideal for distracted or busy corporate learners, as it gives them the opportunity to build their knowledge base when it's most convenient for them.

EXAMPLE: GOOGLE UNIVERSITY

Effectively, Google operates an "invisible" corporate university, delivering personalized, just-in-time information to employees based on their job function and performance. Instead of giving new employees a training manual, Google provides bite-sized tutorial information just before it is needed. For example, managers are given guidance on how to complete performance reviews shortly before it's time to do so.

Source: IBM

Although the term Performance Support has been used for a number of years now, the majority of organizations have yet to introduce a learning-aid strategy. We expect more businesses will start to move away from the traditional "firehose" method of delivering learning and, instead, separate training content into two groups: Information that employees need to know in their heads versus information they simply need at their fingertips to do their jobs better. This will change the way businesses deliver learning and pave the way for performance support methods to become mainstream.

Source: Attribo



CORPORATE MOOCS

The MOOC space essentially doubled this year. More people signed up for MOOCs in 2015 than they did in the first three years of the "modern" MOOC movement (which started in late 2011, when the first Stanford MOOCs took off). According to data collected by Class Central, the total number of students who signed up for at least one course has crossed 35 million—up from an estimated 16.18 million last year.

Coursera, edX, and Udacity are normally known as the big three. FutureLearn¹, which closed 2015 on a high, had a breakout year, and it now has more students than Udacity. This makes FutureLearn the third largest MOOC provider in the world currently.

5 BIGGEST MOOC TRENDS

- RISE OF SELF-PACED COURSES**
Recently, MOOC providers have moved towards a self-paced model, meaning that courses are always open to signup and users can complete a course at their own pace.
- NO MORE FREE CERTIFICATES**
The pursuit of revenues has meant that many MOOC providers have stopped offering free certificates.
- MOOCS TARGETED AT HIGH SCHOOLERS**
Another growing trend among MOOC is more courses being offered to high school students. These courses mostly act like introductions or preparatory courses for college, essentially reducing the gap between high school and college studies.
- BIG MOOC PROVIDERS FIND THEIR BUSINESS MODELS**
One of the big trends last year was MOOC providers creating their own credentials: Udacity's Nanodegrees, Coursera's Specializations and edX's XSeries. For Coursera and Udacity, these credentials have become a main source of revenue.
- BIG FUNDING ROUNDS TO ACCELERATE GROWTH**
In August Coursera announced a Series C round \$61.1M USD. Soon after in November, Udacity announced a Series D funding round of \$105M. The UK's Open University has announced that it will invest £13M into its subsidiary FutureLearn over the next three years.

¹https://www.class-central.com/report/futurelearn-1.5m-investments/



A growth area to watch out for is the rise of **co-branded MOOCs** between corporations and established academic universities, which will see students paying fees to study rather than accessing free courses.

HOW WE LEARN

- LEARNING STYLE** Learning style is an individual's natural or habitual pattern of acquiring and processing information in learning situations. A core concept is that individuals differ in how they learn.
- VISUAL** Visual Learning is a teaching and learning style in which ideas, concepts, data and other information are associated with images and techniques.
- AUDITORY** Auditory Learning is a learning style in which a person learns through listening.
- TACTILE** Tactile learners learn physically by touching/manipulating objects.
- KINESTHETIC** Kinesthetic learning is a learning style in which learning takes place by the student carrying out a physical activity, rather than listening to a lecture or watching a demonstration.
- ANALYTIC** Analytic learners focus on the details of language, such as grammar rules, and enjoy taking apart words and sentences.
- GLOBAL** Global learners focus on the whole picture and do not care so much about specific details. They do not want to get bored with slow moving lessons and enjoy interesting and attractive materials.

Source: i4g.com



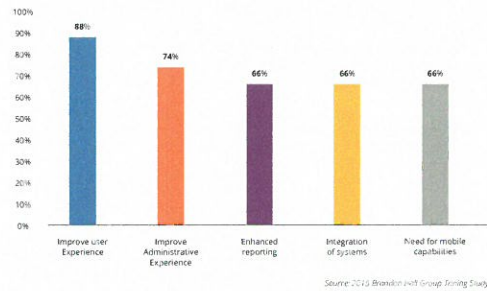
THE REPLACING CYCLE

While most companies that need learning management already have LMS products, there is a significant churn trend, as they can now easily switch to another supplier. As a matter of fact, long-term contracts for LMS products are now quite rare and switching vendors is relatively painless for buyers.

In a recent study, Brandon Hall Group found nearly half of the companies surveyed in 2016 are considering replacing their learning management system (LMS).

What is driving companies to change? An overwhelming 87% of all surveyed indicate it is the need for an improved user experience. The second most common reason is the need for an improved administrative experience (74%).

TOP 5 REASONS FOR SWITCHING LMS



According to different sources, while almost every large company has an LMS (often mandated by compliance regulation), L&D professionals really don't like them and employees find the systems very difficult to use. As an example, a recent research facilitated by CLD Magazine shows that only 20% of employees use the LMS for any non-compliance learning at all. The problem is that most of these tools were designed in the early 2000s and used to replicate the classroom dynamics in a virtual environment.

Buyers, therefore, are moving away from old legacy products and new suppliers are entering the market to meet the demand for more advanced products.



"And today, driven by mobile smartphones, bandwidth, social networking, and cameras everywhere, we learn through video, content sharing, MOOCs, and recommendations from others. The modern learning world is filled with expert authored videos, expert blogs and articles, tweets, webcasts, and an ever expanding marketplace of external (and internal) content. The LMS must become a true "learning system."

Source: Josh Bersin, Principal and Founder, Bersin by Design

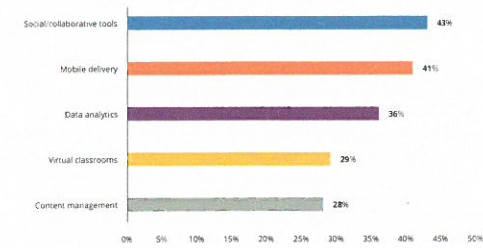
SOCIAL LEARNING

"Within the chaotic learning environment, the biggest priorities within technology are social and mobile solutions."

Brandon Hall Group

According to a recent research by Brandon Hall Group, exploring new or different technologies is the top L&D priority over the next 12 months.

TOP 5 LEARNING TECHNOLOGY PRIORITIES



"Social learning," as it is often considered to be, is nothing entirely new. Though many new modalities of social learning have emerged in recent years, in many ways it has been around for a long time. But if social learning has long been present, why has the focus on it increased recently? Some believe the answer is related to the fact technology is now mature enough to address the most common concerns regarding social learning in the workplace, such as tracking, recognition, and security.

Additionally, as more Gen Y (millennial) workers enter the workplace, the needs and demands for a more social learning experience will increase exponentially, as such tools and modalities have been a part of this generation's DNA.

Social learning technologies have a huge impact on several enterprise core processes, from recruiting to training and developing talent. And there's more: results are quickly measurable because social technologies have a direct and obvious effect on performance. The route from social learning to informal learning is very short.

"Informal learning, on the other hand, is a more impromptu form of education. It is usually unscheduled and happens "on the fly". For the most part, learners gain knowledge and develop their skills by participating in online discussions and presentations that center on their personal interests and activities. It's often helpful to look at informal learning as an unforeseen side effect of carrying out normal everyday activities."

Christopher Rogers, eLearning Industry

According to a Toward Maturity recent survey, organisations looking to support learning directly in the workflow are more likely to report business benefits than those who are not.

THE ESSENCE OF 70:20:10 FRAMEWORK IS THAT LEARNING OCCURS THROUGH A RANGE OF APPROACHES, BEING ROUGHLY:



SOCIAL-ENABLED LEARNING PROCESS

According to recent research by Deloitte, companies tend to be focused on issues like revamping performance management, improving the capabilities of leadership, improving engagement and retention, and creating an employee-centric learning environment.

Currently, employee engagement solutions stretch across many categories. Primarily, most employee engagement technology solutions fit within well-known categories, like talent management and employee recognition. However, we are seeing employee engagement as a significant focus in many other categories, including wellness, engagement measurement, learning, and benefits.

The future of social technology can be summed up in one word: "engage." If social is viewed in terms of how it can engage employees, then its role becomes less about delivering content and more about helping employees.

The future of social technology lies not in any single platform or tool, but in how these technologies lead to interactions within the workforce and how they are used within common processes.

SOCIAL-ENABLED PROCESS ADOPTION

MAJOR SOCIAL-ENABLED HR PROCESSES	WORKFORCE USING	
	TO DAY	IN 12 MONTHS
ADMINISTRATIVE HR MANAGEMENT/RECORD KEEPING	14%	21%
EMPLOYEE MANAGEMENT (PERF AND LEADSHIP AND ATTENDANCE)	8%	14%
TALENT MANAGEMENT		
Recruiting	23%	29%
Performance Management/Goal Management	10%	16%
Learning and Development	14%	22%
Compensation	5%	11%
Recruiting (recruiting/talent acquisition staff)	67%	74%
Recruiting (hiring managers)	26%	36%
Business Intelligence/Workforce Analytics	8%	13%
Average Workforce Adoption across all Mobile-enabled Processes	12%	18%

Source: Capgemini Center

In a social enabled learning environment, learners interact and communicate before, during, and after each training event. It also means providing social-based mentoring that may be informal, ad hoc, or on the job, leveraging social tools such as tagging, bookmarking and rating of learning content, courses and instructors.



"On the other end of the spectrum, some topics lend themselves more to being outsourced than others. These could be specific areas of need that companies do not believe are strong competencies internally"

Brandon Hall Group Learning and Development Answer Book 2015

GLOBAL ELEARNING PACKAGED CONTENT MARKET



Source: Technavio

When going externally, enterprises have different buying strategies:

- Partnering with local players
- Searching for worldwide providers
- Using the Enterprise Mooc options

What is interesting in the buying pattern is the use of multiple providers at the same time to pursue different learning goals.

Some of the major providers of packaged or off-the-shelf eLearning courses include:

- Skillsoft
- Lynda.com
- Pluralsight
- BitLibrary
- Open Sesame
- Coges

LinkedIn made its biggest acquisition to date last week, spending \$1.5 billion on eLearning company lynda.com – a 20-year-old business that offers courses on everything from coding to business skills.

Source: @theinfosys

What is the Breakdown of Training Delivered by Topic?

The types of training that organizations produce can vary significantly, yet at the core of every business are a set of key requirements: job-specific skills, compliance, leadership, etc.

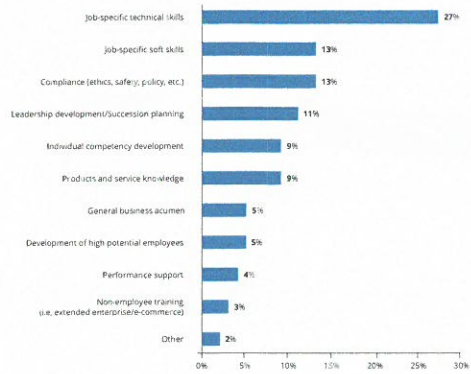


According to ATD (ATD's 2015 State of the Industry report) the top three areas of training content (within corporate) in the past year were:

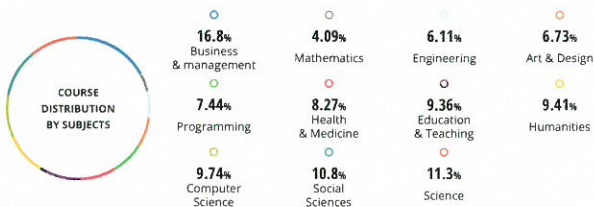
- Managerial and supervisory
- Profession or industry specific
- Mandatory and compliance

This breakdown by topic is confirmed also by the Brandon Hall Group (Brandon Hall Learning and Development Answer Book 2015): over 40% of training is job-specific.

TRAINING BREAKDOWN BY TOPIC



Source: 2015 Brandon Hall Group Learning Study



Source: Class Central

These data confirm the assumption that nowadays, Corporates are smart buyers of learning contents. They know what to buy from the right vendors. According to Deloitte, MOOCs can expand corporate training options.

"Yahoo is reimbursing employees for the cost of verified course-completion certificates from Coursera. Online retailer 1-800-Flowers announced it will create an online education portal on the Udemy platform for its network of independent florists. The portal will offer a mix of general business courses and custom-developed courses on topics specific to the floral industry. Tenaris, a global manufacturer of steel, has licensed edX's software platform and course materials for its employee learning program."

Deloitte University Press, 2013, MOOCs: How corporations can get new opportunities



THE ON-DEMAND ECONOMY



The on-demand economy is attracting more than **22.4 million consumers** annually and **\$57.6 billion** in spending.



The largest category of on-demand spending is online marketplaces (e.g. Ebay, Etsy), with **16.3 million** consumers each month spending almost **\$36 billion annually**.



Transportation (e.g. Uber, Lyft) comes in second with **7.3 million monthly** consumers and \$5.6 billion in annual spending, followed by food/grocery delivery (e.g. Instacart) at **5.5 million monthly** consumers and **\$4.6 billion annual spending**.

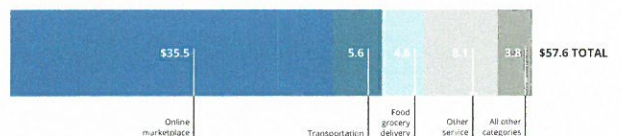


Other on-demand services including home services (e.g. TaskRabbit), freelancer services (e.g. Elance), and health and beauty services (e.g. StyleSeat) account for **\$8.1 billion** in spending each year, and all other on-demand activity comes in at **\$3.8 billion**.

ANNUAL ON-DEMAND ECONOMY SPENDING

U.S. CONSUMERS ARE SPENDING \$57.6 BILLION IN THE ON-DEMAND ECONOMY.

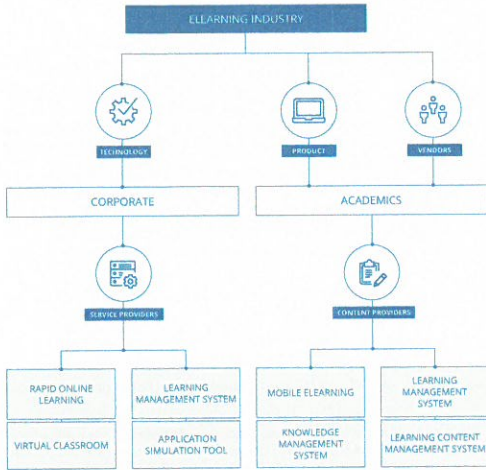
AVERAGE SPENDING PER YEAR IN BILLIONS \$US



Source: Harvard Business Review 2016, "The On-Demand Economy is Emerging and Not Just for the Young and Wealthy"



At the same time, technology obsolescence and management turnover could become the Achilles' heel of a very dynamic and constantly evolving market segment. Vendor-developer partnerships and the need for the need for highly developed IT infrastructure could pose a number of industry challenges over the 2016 to 2023 time range.

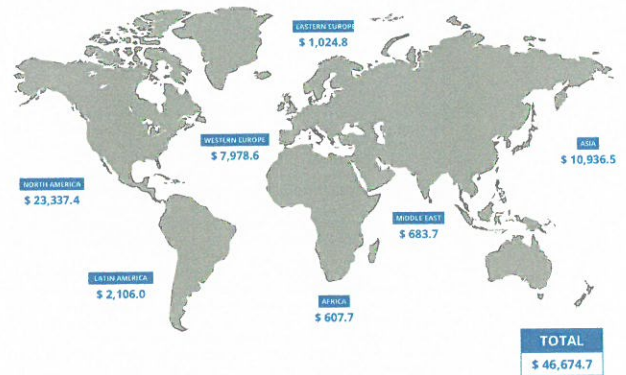


Presently, the U.S. represents the leader in the adoption of eLearning technologies and services. This fact supports the belief that North America will likely exhibit significant growth in this sector between 2016 and 2023.

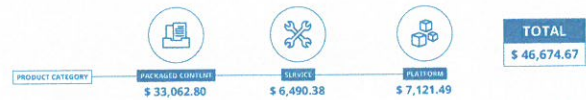
According to Ambient Insight Research, a firm that uses quantitative predictive analytics to identify revenue opportunities for global eLearning and mobile learning suppliers, global revenues for self-paced eLearning reached \$46.6 billion in 2016, a slight decrease compared to the \$46.9 billion seen in 2015. For reference, the self-paced eLearning market is part of the larger eLearning market and includes LMS, authoring tools, packaged content, and services related to the three main categories.



2016 WORLDWIDE REVENUE FOR SELF-PACED E-LEARNING PRODUCTS AND SERVICES BY REGION (IN US\$ MILLIONS)



2016 WORLDWIDE REVENUE FOR SELF-PACED E-LEARNING BY THREE PRODUCT CATEGORIES (IN US\$ MILLIONS)



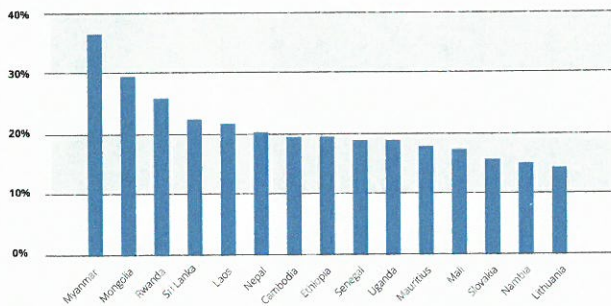
Source: Ambient Insight Research

According to Ambient Insight Research, the worldwide five-year compound annual growth rate (CAGR) for self-paced eLearning is distinctly negative at -6.4%. This means global revenues for this market segment are actually dropping steadily due to the switch towards more effective knowledge transfer methodologies, Ambient Insight asserts.

Of the 122 countries tracked by Ambient Insight, only 15 show a positive (more than 15%) growth rate for self-paced eLearning.



2016-2021 TOP FIFTEEN WORLDWIDE SELF-PACED E-LEARNING FIVE-YEAR GROWTH RATES BY COUNTRY
Across all product types



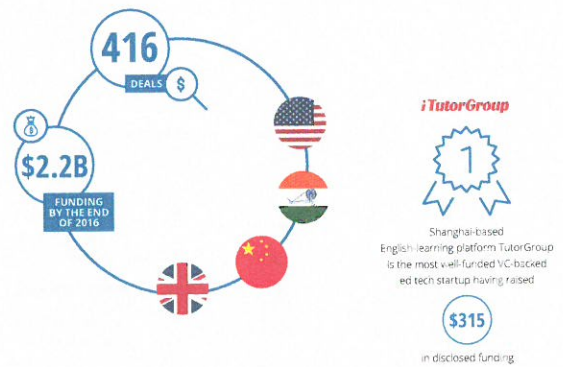
Source: Ambient Insight Research

What about deals and funding in the education technology (ed tech) environment?
Ed tech startups attracted 416 funding deals in 2016, worth a total of \$1.7 billion. At this pace, the total amount will be \$2.2B by the end of the 2016.

Currently, funding to ed tech startups remains concentrated in the US. Outside of the US, India ranks second, with China in third position and the UK coming in fourth.



ED TECH DEALS AND FUNDING ENVIRONMENT IN 2016



The largest deal in Q2 2016 was a \$150 million private equity round by Iconiq Capital to Age of Learning, the California-based provider of early-childhood-learning software called ABCmouse.com. This was followed by a \$60M Series D to Udemy, led by Nasper, and a \$40M corporate minority round by Tencent to a Beijing-based, mobile learning platform called Yuanfudao.

Source: CB Insights

