

# EdTech: From IT to AI

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A legal perspective

February 2018

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*Humans will play for Robots*  
*- Astral projection, 2009*

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## Introduction

*Robots, AI and Deep Learning are fast becoming a reality. In some cases at base stage and in some others far more advanced. From manual to machines, and from simple machines to self- thinking ones, AI technology has profound implications on EdTech & the future of education.*

*At one point in time, the invention of computers and the use of internet was considered a big breakthrough for dissemination of knowledge and information. This was followed by a phase where the rapid increase in the users of ipads, smartphones and electronic smart devices coupled with popularity of digital books, smart classes, digital educational tools, education based applications and games resulted in education being just a click away! Thanks to the internet, today, education is not limited to younger generation alone. Even adults are realizing the benefit of education on the go, at their fingertips, and enrolling for courses to constantly update their skills. The digitization of education is helping social causes as well, as, in addition to traditional education, it is enabling the government and social organizations in reaching out to the masses and imparting education on topics such as IT, health, social matters, current affairs and other subjects, thus contributing to public good. In the near future, technology like IBM's Watson and Google's Alpha Go have the potential of changing the way of learning and teaching in ways unthought-of.*

*The use of artificial intelligence (AI) as an effective method of teaching and learning is the latest technological development in the EdTech space. It is a known fact that the learning curve of every individual is different. Some learn faster than others, while some take more time and attention to absorb details. Further, techniques of teaching may also need to vary depending on the subject. Although teachers are trained to provide effective education to students, there are some inherent constraints, of time and capability, for teaching different students differently. AI can help bridge this gap as it has the*

*ability of monitoring and adapting to the learning patterns and providing effective solutions to students. Further, it can also make learning more fun using interactive methods of teaching. The benefits of AI can thus be used for improving the standard and quality of education as a whole.*

*However, with technology replacing human-power in various facets, several questions arise from an education sector perspective as well. For instance, will AI replace teachers completely in the future and if yes, for good or bad? Will interfacing a computerized device suffice, vis-à-vis the in-person classroom experience? How will classrooms of future look like? Will it be limited to a computer and four walls in a digitized world or there is scope for much better learning when there is student-teacher interaction? Are flipped classrooms the future? If machines are to replace humans, then what about employment? With the conventional pen and paper being supplemented by smart devices, does blended learning seem to be the logical way forward? These are issues of much deliberation and discussion.*

*Since education is a fundamental requirement of life, while a machine can analyze patterns and provide effective solutions, society still trusts human interaction over technology for imparting learning. The role of technology, such as AI, can therefore be of an assistive learning tool in teaching, which complements the experience of teachers with processes and new age solutions. For instance, AI is already being used to some extent to lessen the burden of the teachers by helping with administrative jobs such as question paper generation, evaluation etc. It can be used in providing focused tutoring customized to the need of students so they are up to speed with the others in the class, and can specifically be used to help students who may have visual, hearing or other learning challenges. Technology and AI based applications can also be an effective tool for parents to keep a track on the progress made by their child.*

*It can be (and to some extent is) used for making teaching more fun, interactive and practical. Use of digital content such as videos, games, and other learning based applications are helping in creating an adaptive learning environment in any case.*

*Thus, while human involvement in teaching seems irreplaceable, “EdTech” is the much needed disruption revolutionizing the manner of teaching and learning.*

*In this paper, we explore some of the EdTech businesses and their legal nuances.*

# 1. The business of EdTech

The excess demand for good quality education vis-à-vis the limited capacity coupled with the constraints of infrastructure and good teachers has adversely affected the education system in many countries, including India. Lack of good education affects the employability of the individual and the country's overall development of the nation.

Since it is expensive and therefore difficult to set up good quality educational institutes to meet the growing demand in a short span, use of technology is an effective solution for providing quality education to a large population, via the medium of internet.

EdTech models, focused on e-learning, are gaining popularity amongst students worldwide for they not only provide access to good quality education, but are more affordable for the students as it saves on costs of relocation, travel, accommodation and lifestyle on campuses in general.

Given that the crux of EdTech is technology, which is evolving every minute, it is difficult to crystallize all the business models of EdTech. Some current businesses relying on EdTech are discussed below:

## I. Online Tutorials

The trend of students, aiming for top scores or admission in premier colleges, enrolling for coaching classes is not a recent one. Since the coaching centers are based in select cities, students usually have to shift base to avail tutorial services. However, technology has now managed to bring the coaching classes right at the (smart device) window of the student. Students are now able to download the applications and become part of the virtual classrooms, through live streaming possibilities. Further, they are even able to interact with teachers and fellow students via discussion forums. This has helped spread the reach of education to students even in the remotest locations, without the need to travel for coaching.

Tutorials and coaching classes have always been a thriving segment of the Indian educational set-up, and the benefits of expansion and reach through e-learning has been realized by providers and investors alike. The growth of several e-tutorial based start-ups and the investment and acquisition activity in this space is clearly suggestive of the potential this segment hold. The situation is such that even traditional coaching and tutorial houses are moving to e-platforms, in addition to physical setups, to expand their market reach and lower costs.

## II. Certification and Degree courses

Admission in a good institute is usually merit based and highly competitive, thus only few students are able to reap the benefit of such education. The fee charged by such institutes for a degree / diploma programme is usually very high and not affordable for all. This invariably means that every student may not be able to pursue a degree / diploma programme from a good institute. Further, the curriculum taught in most of these institutes is either dated or not as progressive as one would want. Thus, while a student may graduate from such institutes, he or she may not necessarily be appropriately skilled for a job or have the practical knowledge required to hit the road running. This results in students enrolling in coaching classes/ vocational training classes and seeking certification courses to improve their skill set and increase their scope of employability.

In the recent past, certification courses have attracted a great amount of interest among education service providers. Certification courses are generally unregulated short term courses, and are aimed at improving a skill set or enhancing knowledge about a particular subject. These courses help students develop practical knowledge in a subject, which helps in employment as well as in career progression. Further, students can take up multiple courses to

broad base their knowledge in several subjects.

Massive Open Online Courses (“MOOCs”), which are often offered independently or by or in collaboration with universities, are increasing the popularity of certification programs, as it gives cross border access to students to courses provided by universities, including world class universities. A fee is charged for a certification of completion of the programme, if the students wishes to receive it.

Given that MOOCs are usually free of cost, and are open to public at large, the completion rate of MOOCs is fairly low. This has paved way for the concept of Small Private Online Courses (“SPOCs”). SPOCs unlike MOOCs are customized learning targeted at a smaller group for a more focused learning experience.

In addition to MOOCs and SPOCs, educational institutes are progressing towards online classroom models where a formal degree or diploma is provided to student on the completion of the course. However, these courses are expensive compared to MOOCs. Thus, a blended model where part of the study is through digital means and part in a physical class room is more tuned to cater to today’s needs.

### III. Gamification

While games are traditionally considered a means of entertainment, EdTech players have creatively used gaming as a means for imparting education. Gaming based education platforms present problems as challenge to students packaged with an entertainment quotient for productive learning. Students are engaged by the competitiveness of the game, its user interface and the reward at the completion of each stage, making learning fun.

Designing an educational game is usually inexpensive, when compared to the wide reach it offers. Also, the availability of low-cost devices, increase in Internet penetration and the popularity of games among children and adults alike, is an indicator that gamification is playing a crucial role in transforming learning.

## IV. Television Channels and Platforms

Television, because of its vast reach, is turning out to be a very effective medium of providing education to the masses. Television channels (which could either be uplinked and downlinked from India, or uplinked from outside and downlinked in India) as well as platform service providers (such as cable operators, DTH or IPTV players) are collaborating with content providers for education focused content (such as tutorials for specific subjects or learning and problem solving based programmes) in India. Educational content by a television channel is usually provided as part of its programme schedule and is available to customers as part of the subscription charge paid for the channel. In case of a platform, for instance a cable or DTH operator, the customer may need to subscribe to such content separately, unless it is provided as free content by the platform. The offering of educational content through the medium of television, which has a presence in most households, can have a far reaching impact on the education industry as a whole.

## V. Knowledge sharing platforms and teaching assistance tools

Platforms such as knowledge sharing applications, e-books, e-discussion forums, webportals for idea exchange, smart classes, tools and applications enabling interactive teaching through videos and presentations, portals helping teachers generate questions and question papers, track student progress, evaluate students, and helping parents to track the child development are some of the other variants which are becoming increasingly popular in the EdTech ecosystem. With the education system progressing towards a blended learning



model, teachers are also using technology, including AI, to assist with their teaching. The large consumer base of this market comprising of educators and learners, is opening up opportunities for providers and investors.

## VI. Big Data

Big Data, i.e analysis of large volume of data using techniques to ascertain patterns, trends, preferences etc., is extremely helpful for EdTech. With the help of big data, it is possible to analyze student behavior, needs, learning abilities and weaknesses, which analysis can be used for customizing the imparting of education to students. Use of Big Data has been well received in the education sector and several companies currently offer such solutions.

## VII. Cloud Computing<sup>1</sup>

Cloud Computing provides several benefits for the education sector in terms of storage, sharing and accessibility. With the help of cloud storage, students can have access to education resources via any tablet/ mobile device, without the need to invest in high storage capable devices. Due to the benefits of ease of access and low investment costs, educators and students prefer cloud-based solutions. This result in increased opportunities for cloud computing providers.

## VIII. E-Commerce<sup>2</sup> and Payment Systems

The payment towards tutorials classes, certification, educational content, games, interactive boards, applications, e-books, web-based education tools and services etc. is essentially a purchase of a service or product through the e-medium, resulting in a commercial transaction.

The benefits of e-commerce for Edtech models has created a thriving market for all types of education platforms resulting in an increase in e-commerce transactions in the education space.

Given the flexibility of online learning based models to provide education from anywhere, anytime, the traditional models of physical payment are no longer feasible. Efficient and effective e-payment mechanisms are necessary in order to facilitate the businesses functioning in a web based environment. The new models of payment systems i.e electronic payment systems, e-wallets etc. are a necessity for the growth and success of EdTech businesses. With the growth in the demand for EdTech services, the number of electronic transactions, both domestic and cross border are only going to increase, creating scope for more such payment gateways and solutions to emerge in future. The blockchain technology could also play an important role in the fast evolving payment systems space.<sup>3</sup>

1. Please refer to our research paper titled “Cloud Computing Risks/ChallengesLegal & Tax Issues” accessible at the link: [http://www.nishithdesai.com/fileadmin/user\\_upload/pdfs/Cloud\\_Computing.pdf](http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Cloud_Computing.pdf) for further information on this subject.

2. Please refer to our research paper titled “E-Commerce in India: Legal, Tax and Regulatory Analysis” accessible at the link: [http://www.nishithdesai.com/fileadmin/user\\_upload/pdfs/Research%20Papers/E-Commerce\\_in\\_India.pdf](http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/E-Commerce_in_India.pdf) for further information on this subject.

3. Please refer to our research paper titled “Bitcoins: A Global Perspective” accessible at the link: [http://www.nishithdesai.com/fileadmin/user\\_upload/pdfs/Research%20Papers/Bitcoins\\_A\\_Global\\_Perspective.PDF](http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/Bitcoins_A_Global_Perspective.PDF) for further information on this subject.

## 2. EdTech and the Law

EdTech, like any other business, has its own peculiar challenges from a legal, regulatory and tax perspective. Some key nuances are discussed below:

### I. Entity Form, Jurisdiction and Contractual Documents

The first and foremost step for any business is to decide the form of the legal entity they will organize themselves as. Choice of jurisdiction, India or overseas is also an important decision to make right in the beginning. Intellectual Property (IP) is a key asset of an EdTech business, and its optimum protection and exploitation is an important driver for this choice. A company aiming to service local customers, should ideally be set up in the jurisdiction where its customer and revenue source is. Conversely, where an entity intends to do business across the globe (e.g. launching an application or service which they expect to be used globally), structuring is critical to *inter alia* decide on the most efficient legal, tax and regulatory jurisdiction to set up the business, so that the revenues can be maximized. For such companies, jurisdictions, which provide good intellectual property right protection, tax treaty networks and are investor friendly (such as Singapore) may be preferred locations. However each structure is dependent on a number of factors and will vary from business to business.

#### A. Setting up a Business in India<sup>4</sup>

If the business is set up in India, following forms of entities may be considered:

##### i. Private Limited Company

A private company can be set up under the provisions of the Companies Act, 2013. As per companies law, a private limited company needs to have a minimum of two persons as shareholders and a minimum of two directors, at least one of whom is a resident director and has stayed in India for not less than 182 days in the previous calendar year. A private company has the following features:

- The right to transfer shares is restricted in accordance with its articles of association.
- The maximum number of its shareholders is limited to 200 (excluding past and present employees who are shareholders of the Company).
- No offer can be made to the public to subscribe to its shares, debentures and deposits

In a private limited company, the liability of the shareholders is limited to the extent of the shares contributed to the capital of the company. Further, a company is a separate legal entity and can sue and be sued in its own name. Therefore, it ring-fences potential personal liabilities (including business-related liabilities) of the shareholders and is thus a common structure for receiving investments.

##### ii. Limited Liability Partnership

A Limited Liability Partnership (“LLP”) is a form of business entity which permits individual partners to be shielded from the liabilities created by another partner’s business decision or misconduct. In India, LLPs are governed by the

4. Please refer to our research paper titled “Doing Business in India” accessible at the link: [http://www.nishithdesai.com/fileadmin/user\\_upload/pdfs/Research%20Papers/Doing\\_Business\\_in\\_India.pdf](http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/Doing_Business_in_India.pdf) for further information on this subject.

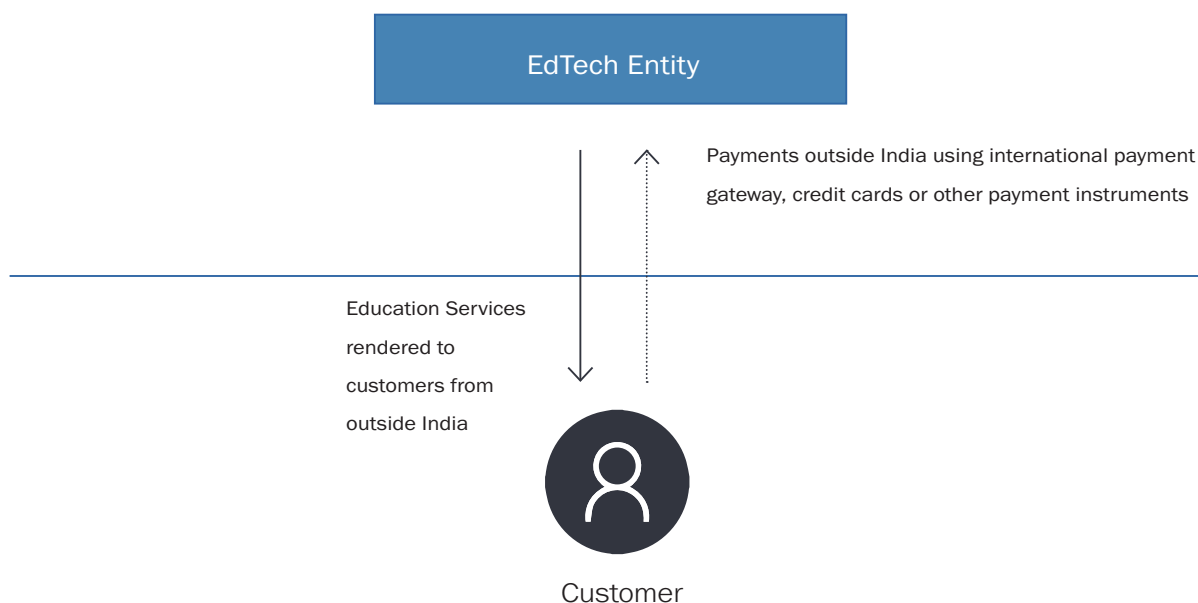
Limited Liability Partnership Act, 2008. LLP is a body corporate and exists as a legal person separate from its partners. LLP, as compared to a private limited company, is a relatively new structure. However, since a LLP has lesser compliances than a company and is tax efficient, it is being increasingly used in business.<sup>5</sup>

## B. Offshore Business<sup>6</sup>

A number of international players provide education services in India, from outside India. In such cases, the servers or clouds are usually located outside India and the intellectual property is also housed outside India. Further, at times, even providers from within India, with an intention of expanding globally, set up offshore entities, as described above. Some of these offshore services models are:

### i. Rendering Services directly to Customers

#### Offshore entity with servers/ cloud outside India



#### Customer in India

5. Please refer to section on "Tax Considerations" below for further information on this subject.

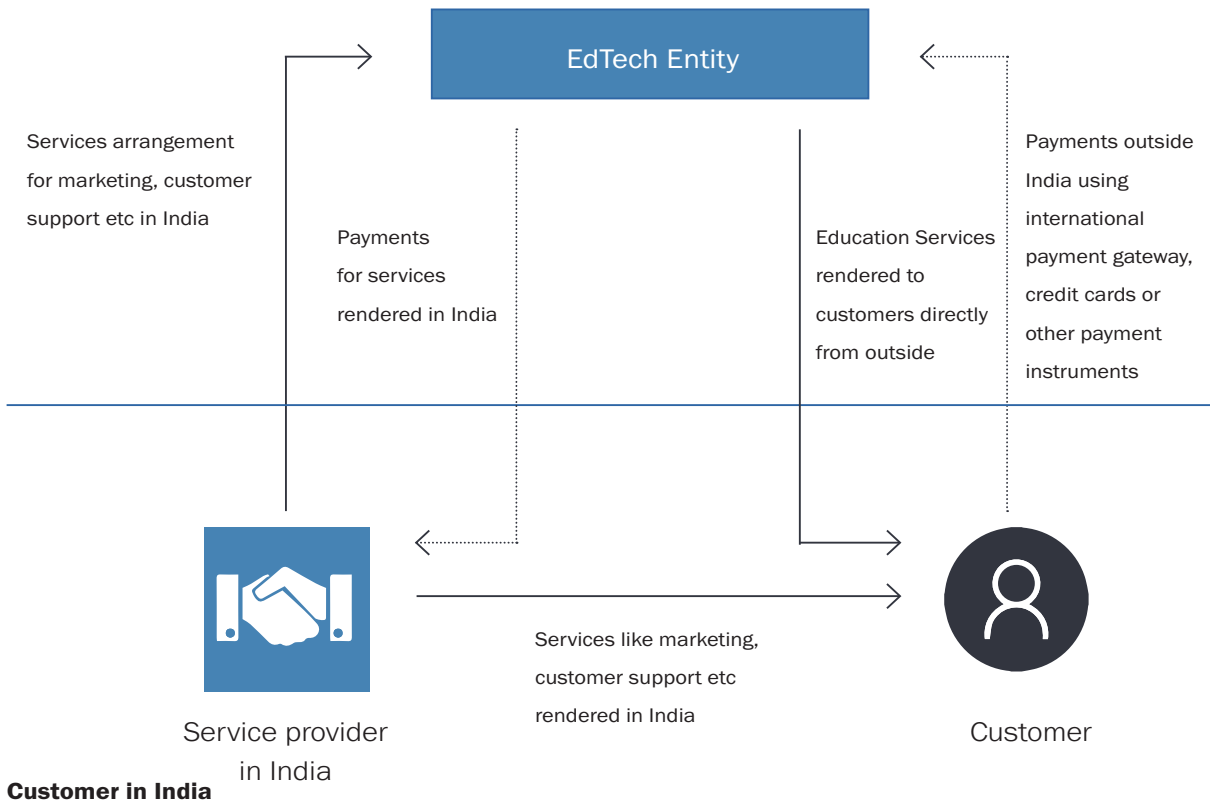
6. Please refer to section on "Tax Considerations" below for further information on the taxation of these models.

In this model, the online courses, web based or application based portals, forums or games, or products are directly provided by the entity from outside India. The EdTech entity does not have any presence in India. The payments, if any, required to be made by the customer are processed by an international payment gateway directly to the EdTech entity. This model is used by those EdTech players who have services or are expanding their services in various markets, but do not wish to have a local presence in each market. India has exchange control regulations<sup>7</sup> and therefore an understanding of regulations relating to payment systems in India is important to ensure a smooth transaction flow.

7. Foreign Exchange Management Act, 1999.

ii. Entity located outside India having a Service Provider in India

**Offshore entity with servers/ cloud outside India**



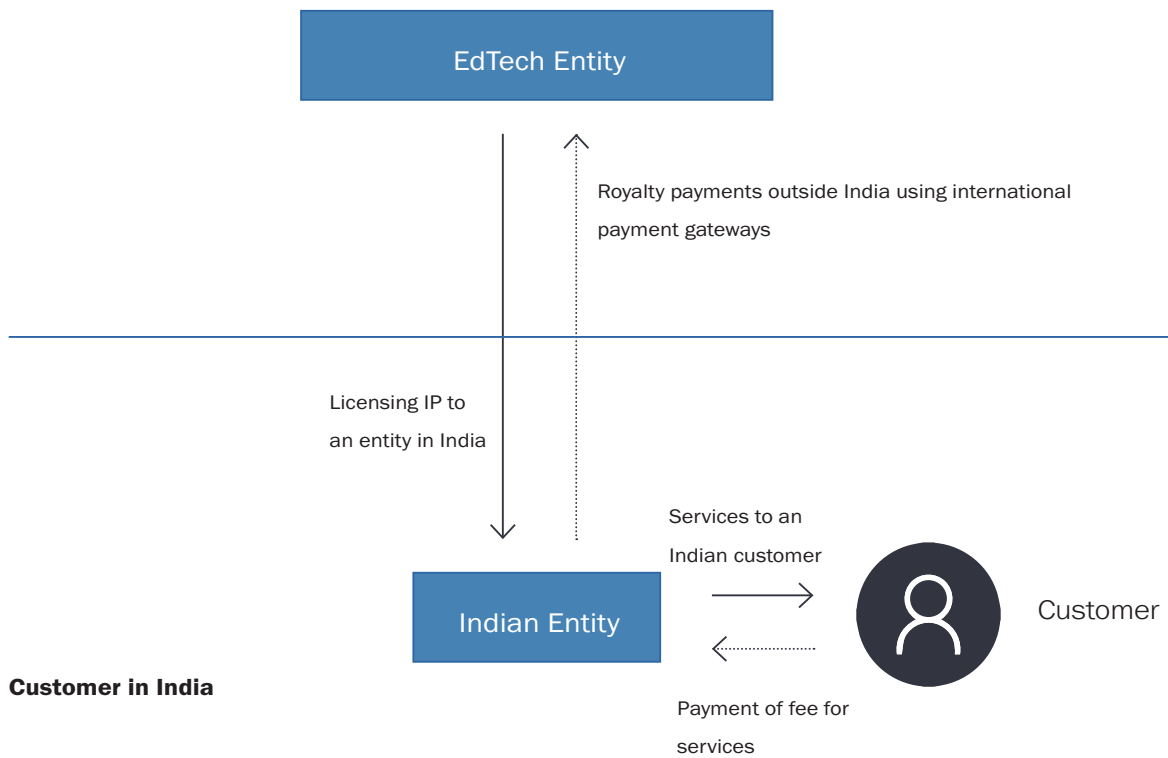
**Customer in India**

This is a hybrid of the first model. In this model, while the EdTech entity provides the services from outside India, and collects payments, if any, directly outside India, it may have a presence through a local entity, which may assist in services such as marketing, customer acquisition and customer support. Depending on the commercial arrangement between the parties, the local service provider could be paid

by the EdTech entity on a commission basis or be paid a fixed amount on a period basis. This model helps the EdTech players in expansions in the market without having a formal presence in the market.

### iii. License Arrangement

#### Offshore entity with servers/ cloud outside India



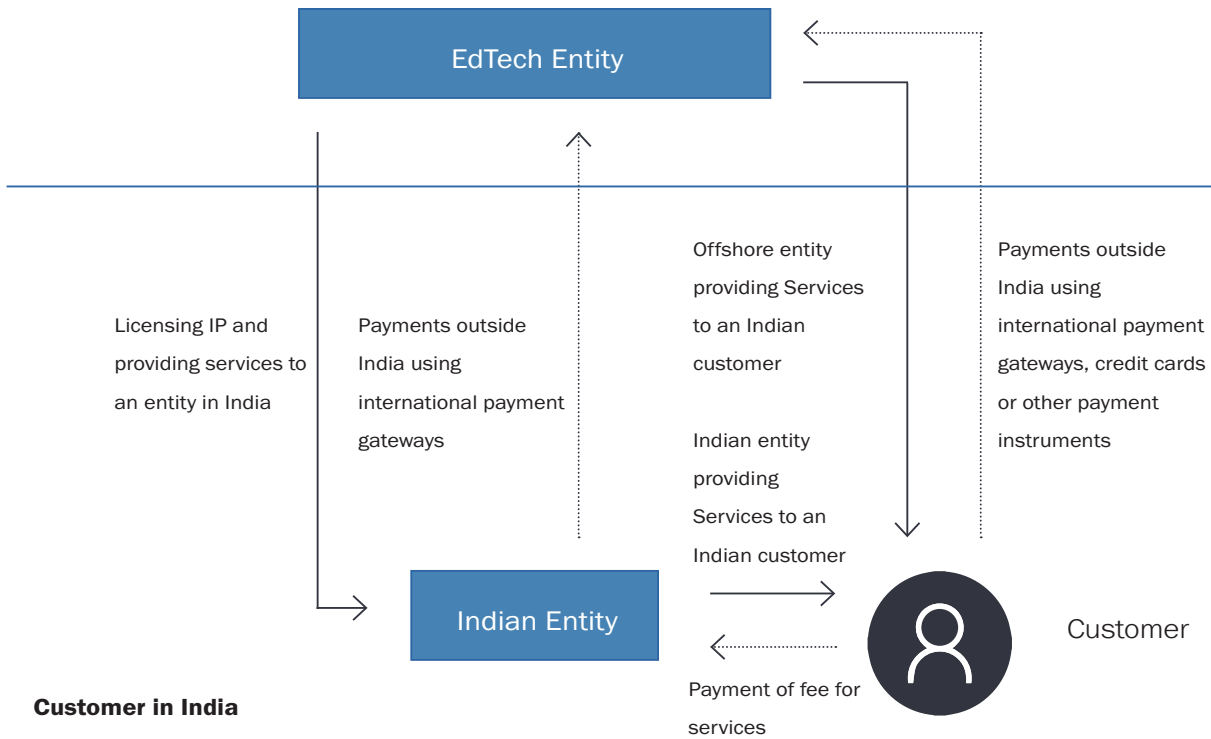
#### Customer in India

In this model, the EdTech entity (for instance a foreign institute), which owns the intellectual property (IP), i.e. proprietary courses material, enters into license arrangement with Indian entity, wherein the brand name, curriculum, know-how etc. is licensed to the Indian party. The course curriculum is then imparted to students by the Indian institute in India. Such an arrangement is a win-win situation for all as (i) the foreign institute benefits from the license fee and goodwill generated because of its name being recognized in the Indian market; (ii) the Indian institute benefits from the license of curriculum and brand name from the foreign

institutes, which enable them to attract students to their institute; and (ii) the students get access to the curriculum and teaching methods of foreign institutes in India itself, thus saving on costs. It is important to note that such an arrangement should be a pure license arrangement and the foreign institute should not be awarding any degree or diploma to students in India, else the programme may fall under the purview of the regulated sector.

## iv. Services Arrangement

### Offshore entity with servers/ cloud outside India



This is a hybrid of the above model, in which the Indian entity also engages the services of the foreign entity, such as advising on standards for evaluation of students, qualification and recruitment of teachers, training teachers, advertising, inputs on infrastructure facilities etc. At times, the foreign educational institute may also send their teacher and staff to the Indian institutes for teacher/ student training programmes or provide certain services (for instance certain modules through online medium) directly to students in India. The foreign institute benefits from such an arrangement as it is able to establish its presence in the Indian market and earn from the services fee and the Indian institute benefits from the expertise and experience of the foreign institute. However, from a regulatory perspective, it is important to structure the arrangement in a manner which reflects the intent of the parties. Since foreign educational institutes are currently not allowed to operate an independent campus in India,

the arrangement should not result in the Indian institute being construed as a campus of the foreign educational institute in India nor should the foreign educational institute be construed as awarding degree or diplomas to students in India.

## v. Back Office Functions

Because of the thriving IT industry in India, offshore entities often engage Indian service providers for IT based services, such as software development, graphics, data processing etc. These Indian services companies could be captive units of the offshore entity or a neutral third party rendering services.

## C. Contractual Arrangements

Depending on the business model, jurisdiction and structure, an EdTech entity may need to enter into several agreements. These agreements

would however need to be in compliance with applicable local laws. Some such agreements relevant to an EdTech business are :

### i. IP Assignment Agreements

Having a clear chain of title to the asset is the back bone of any business. Since IP forms the crux of an EdTech model, it is imperative that the rights in the IP vest with the correct entity. In case the IP is created by the employees or consultants, it is important to have clear documentation to ascertain how the IP rights vest in favor of the owner entity. Unlike in other countries, in India the “work for hire” concept is recognized only in relation to copyrighted works in an employer-employee relationship. Hence, clear assignment clauses in employee, consultant and third party contractor agreements are important.

In case of acquired IP, the entire chain of title documents needs to be examined to ascertain whether the entity from which IP is to be acquired actually has a valid title to transfer the IP. Such services could be in the nature of website development, software development, development of marketing and promotional material etc.

In order to seek assignment of rights, there are some specific provisions under Indian IP laws which need to be complied with / borne in mind while transferring IP. For instance, in case of copyright, it needs to be ensured that the term and territory of the assignment is specified in the assignment and license documents, in the absence of which the term is deemed to be 5 years and territory to be India. While these provisions of copyright law may not have an effect in an employer employee relationship (due to work for hire concept because of which copyright vests in the employer automatically), in all other cases (i.e contract based) assignment clauses need be carefully examined to ascertain absolute ownership of copyrighted work. Further, in case of any other form of IP (such as trademarks, patents etc.) the IP rights need to be specifically assigned.

### ii. Confidentiality and Non-Disclosure Agreement

Every business has its own secrets to protect. In order to carry out business with third parties, a confidentiality and non-disclosure agreement must be prepared. This can be used to enter into preliminary discussions with third party vendors, consultants, contractors etc. whilst ensuring that appropriate protection is provided to the business and its ideas.

Further, employees of an organization are privy to confidential information and trade secrets on a daily basis. In the absence of any specific Indian statute conferring protection on such information in the hands of employees, it is imperative to have contractual documentation placing confidentiality and non-disclosure obligations on employees.

### iii. IP License Agreement

For EdTech businesses which license their IP to another entity, the presence of an IP license agreement is a must. In case a brand is licensed, the agreement should clearly set out the terms and conditions for the grant of license, and that the goodwill generated by the use of the brand will accrue to the benefit of the EdTech entity. As far as licensing of copyrighted work is concerned, there are certain nuances under the Indian Copyright Act (for example, term of the license / assignment is deemed to be 5 years and territory is deemed to only be India unless parties agree otherwise). These nuances should be borne in mind specifically if any license is taken from an Indian entity.

### iv. Other Agreements

In addition to the above, an EdTech entity may require certain other agreements as well, such as services agreement for availing services (for instance website or development services) from a service provider, marketing and distribution agreements (for instance, for sale or promotion of the products or services in local regions), website or application terms and conditions for entering in contracts with the users, privacy policy etc.

## II. Protection of Intellectual Property (“IP”)<sup>8</sup>

Intellectual Property is the principal asset in an EdTech business and hence it is essential to protect it. IP could either be developed in-house, acquired or licensed from a third party. The various forms of IP that an EdTech model can have is as follows:

### A. Copyright

The saying “*Content is King*” couldn’t be more true for an EdTech business, which is an entirely educational content driven model. Under the Indian Copyright Act, 1957, copyright subsists in original literary (for instance course material), musical (for instance background scores or notations), artistic (for instance graphics) and dramatic works (for instance the performances in a video recording), cinematograph films (for instance videos recordings) and sound recordings (for instance audio notes). A computer programme is treated as a “literary work” and is protected as such. In India, copyright registration is not mandatory and copyright comes into existence the moment the work is created provided it is original. A registered copyright is however prima facie evidence of ownership. The term of copyright is, in most cases is, the lifetime of the author plus 60 years thereafter.

### B. Trademarks

The brand name or product name of an entity or its tagline, logo and trade dress are its trademarks. In India, trademarks are protected both under statutory law and common law. A trademark can registered under the Trade Marks Act, 1999 (“**TM Act**”) along with the Trade Mark Rules, 2002 (“**TM Rules**”). A “mark” under the TM Act is defined to include “*a device, brand, heading, label, ticket, name, signature,*

*word, letter, numeral, shape of goods, packaging or, combination of colors, or any combination thereof.*”

<sup>9</sup> Thus, the list of instances of marks is inclusive and not exhaustive. Any mark capable of being “graphically represented” and indicative of a trade connection with the proprietor is entitled to get registered as a trademark under the TM Act. A registration acts as a prima facie proof of a trademark and hence recommended. However, if the mark is not registered, it is still protected under common law. Under common law, the owner of the trademark may claim a passing off right, against the entity who may be passing off goods and services as that of the goods or services of the owner of the trademark.

Since trademarks are territorial in nature, it is important to register them in each jurisdiction where the mark is used or proposed to be used.

### C. Domain Names

In an e-business environment, websites and internet domains play an important role in the conduct of business. While there is no specific law or regulation pertaining to domain names, the Indian Courts have extended the protection availed to trademarks under the TM Act and Rules to domain names as well. Since websites are accessible worldwide, while purchasing a principal domain (generic top level domain names) name such as a “.com” it is recommended to have sub-domain (country code top level domain names) names such as “.in” as well.

### D. Patents

In India, the law governing patents is the Patents Act, 1970 (“**Patents Act**”) which grants protections to inventions. Not all innovations are “inventions” within the definition of the Patents Act. The term “invention” is defined as “*a new product or process involving an inventive step and capable of industrial application.*”<sup>10</sup>

Unlike in other countries, software (except in certain circumstances), algorithms and business methods are not patentable in India. Thus,

8. Please refer to our research paper titled “Intellectual Property Laws in India” accessible at the link: [http://www.nishithdesai.com/fileadmin/user\\_upload/pdfs/Research%20Papers/Intellectual\\_Property\\_Law\\_in\\_India.pdf](http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/Intellectual_Property_Law_in_India.pdf) for further information on this subject.

9. Section 2 (zb) of the TM Act

10. Section 2(i) (j) of the Patents Act



learning based products and processes, being softwares, are not patentable in India, unless they are combined with a hardware and the invention fulfills the requirements of novelty, non-obviousness (inventive step), and industrial application. Further, it should also not be previously available in public domain.

The challenge that businesses prima facie face as regards patents is to determine whether a product or process is patentable or not. For instance, if an entity develops a novel process, but discloses it to public, it may lose the opportunity to patent the process solely because it was not aware about what qualifies as a patent and what to do to patent a product. This may become a deal breaker from a commercial perspective if the value of the company was based on the novel process itself. This is especially true in case of an EdTech venture which develops its own unique learning processes and products.

## E. Trade Secret and Know-how

Whilst there are no specific laws and regulations governing trade secrets and know-how, these are protected under the common law in India. In order to protect trade secrets and confidential information, watertight agreements should be agreed upon, and they should be supported by sound policies and procedures.

## III. Data Protection Compliances in India

The increasing use of technology in education has raised several data security and privacy concerns. Games, learning applications or any other interface generally collect personal information about its users which can be further put to commercial use and marketing. The sale of personalized data to third parties for different reasons ranging from development of related products or to advertisers or crossover vendors may lead to several data protection implications.

In India, the provisions relating to data protection are covered under the Information Technology Act, 2000 (as amended) (“ITA”) and more specifically, the rules issued under the ITA, titled “*Information Technology (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011*” read along with the clarification dated August 24, 2011 that was issued by the Government in relation thereto (together referred to as the “**Data Protection Rules**”).

There are basically two categories of information covered under the ITA, which need to be considered with respect to data protection:

- a. *Personal information* (“**PI**”) which is defined as any information that relates to a natural person, which, either directly or indirectly, in combination with other information available or likely to be available with a body corporate, is capable of identifying such person.
- b. *Sensitive personal data or information* (“**SPDI**”) which is defined to mean such personal information which consists of information relating to -
  - i. password;
  - ii. financial information such as bank account or credit card or debit card or other payment instrument details;
  - iii. physical, physiological and mental health condition;
  - iv. sexual orientation;
  - v. medical records and history;
  - vi. Biometric information.

The Data Protection Rules are applicable to a **body corporate** that is engaged in the collection, receiving, possessing, storing, dealing or handling of SPDI using **electronic medium** and sets out compliances for protection of SPDI by such body corporate.

The Data Protection Rules are applicable only to body corporates located within India. Thus, if SPDI of any individual is collected, received, processed, stored, dealt with and handled outside India, the Data Protection Rules may not be applicable. However, the local data protection laws of the relevant countries may apply in relation to such data.

## IV. Intermediary law and liability<sup>11</sup>

Depending on the specifics of the business model, an EdTech platform may be considered as an intermediary (an EdTech marketplace for example) within the meaning of the IT Act, which defines an intermediary to mean “*any person who on behalf of another person receives, stores or transmits that record or provides any service with respect to that record and includes telecom service providers, network service providers, internet service providers, web hosting service providers, search engines, online payment sites, online-auction sites, online market places and cyber cafes.*”<sup>12</sup>

Under India law, an intermediary has the responsibility to comply with the provisions of the IT Act and the Information Technology (Intermediaries Guidelines) Rules, 2011 (“**IT Rules**”) and may have liabilities in case of a violation.

## V. Payment Systems

As discussed earlier in this paper, the growth of technology has enabled growth of instruments which allow for easy access to e-commerce transactions. Payment systems in India (both traditional and electronic) are regulated by the Payment and Settlement Systems Act, 2007 (*hereby* the “**PSS Act**”). The PSS Act defines a “payment system” as “*a system that enables*

*payment to be effected between a payer and a beneficiary, involving clearing, payment or settlement*<sup>13</sup> *services or all of them but does not include a stock exchange*”.<sup>14</sup>

The PSS Act explains that for the purpose of the definition, “payment system” includes the systems enabling credit card operations, debit card operations, smart card operations, money transfer operations or similar operations.

As per the PSS Act, Reserve Bank of India governs the payment systems operational in India. In addition to the PSS Act, there may be several other rules and regulations, including those established by the RBI that govern a system that involves the “clearing, payment or settlement” of a payment, depending upon the nature of service or undertaking involved.

Some common payment instruments which are used for e-commerce transactions are:

- a. Credit / Debit cards; and
- b. Pre – Paid Instruments, which can include smart cards, magnetic stripe cards, internet accounts, internet wallets, mobile accounts, mobile wallets, paper vouchers and any such instrument which can be used to access the pre-paid amount.

With EdTech growing rapidly in India, an increasing number of businesses, whether service or product based, require payment online or via phone leading to “Card Not Present” (“**CNP**”) transactions. A CNP transaction is one where the customer and the merchant / service provider are not physically in the same location, and the merchant does not have access to the card being used, thereby making it difficult for the merchant / service provider to verify the identity of the customer. This could lead to situations in which payments and transactions are completed without the knowledge or authorization of the actual holder of a credit card. Taking heed of the growing number of

11. Please refer to our research paper titled “E-Commerce in India: Legal, Tax and Regulatory Analysis” accessible at the link: [http://www.nishithdesai.com/fileadmin/user\\_upload/pdfs/Research%20Papers/E-Commerce\\_in\\_India.pdf](http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/E-Commerce_in_India.pdf) for further information on this subject.

12. Section 2(w) of the Information Technology Amendment Act, 2008.

13. Section 2 (r) (n) of the PSS Act defines “Settlement” as “settlement of payment instructions and includes the settlement of securities, foreign exchange or derivatives or other transactions which involve payment obligations.”

14. Section 2 (r) (i) of the PSS Act

incidents of credit card fraud, especially via online payment portals, the RBI issued a notification in February 2009<sup>15</sup>, mandating the use of an additional authentication / validation system (also referred to as 2<sup>nd</sup> level authentication / 3D verification) for online CNP transactions. Further, banks are also required to put in place an online alert system which would notify the card holder of any CNP transaction. The additional authentication / validation is to be obtained using information that was not visible on the credit card itself, i.e. information known or available to the holder of the card but not printed on the card. One time passwords, internet banking passwords are examples of 2<sup>nd</sup> level authentication.

The requirement for 2<sup>nd</sup> level authentication is applicable to all transactions where:

- a. The card was issued in India; and
- b. There was no outflow of foreign exchange contemplated.

The introduction of a second level authentication prevents merchants from implementing mechanisms where continuous / repeat payments can be made by customers, for example, in the case of subscription based services. Obtaining a second level authentication requires more time and effort for a customer as opposed to a simple click through transaction.

As a result, it appears that some players in the industry may have structured their businesses by receiving payments in an offshore entity. However, the RBI vide a directive<sup>16</sup> clarified that *“merchant transactions (for underlying sale of goods / services within India) being acquired by banks located overseas resulting in an outflow of foreign exchange in the settlement of these transactions is not acceptable”*, and that where cards issued by banks in India are used for making CNP payments towards purchase of goods and services provided within the country,

such transactions should be settled in Indian currency and the acquisition of such transactions should also be through a bank in India.

From an Indian market perspective, it is important for EdTech entities located outside India, looking at subscription based models to structure their business taking into account the above mentioned regulations and directives.

## VI. Education specific laws for EdTech ventures

Although 100% foreign direct investment has been allowed in education, investors have always been wary of investing in the education sector in India because of its highly regulated nature. The benefit of EdTech is that it is like any other technology driven industry and therefore not subject to such severe regulation. Since technology based industries have succeeded in India because of less regulatory hassles, there is possible for EdTech to grow as well.

As regards regulation, India does not have any specific law or regulation for regulating education offered through digital or online medium.

The All India Council for Technical Education (“AICTE”), a regulator of technical educational courses<sup>17</sup> in India and University Grants Commission (“UGC”)<sup>18</sup>, the regulator for non-technical education (i.e other than technical courses) in the country had issued regulations formulated with the objective of enforcing accountability of all educational activities carried out by various educational service providers in India. However, these regulations

17. Technical Education’ has been defined in the All India Council for Technical Education Act, 1987 (“AICTE Act”) to mean “programs of education, research and training in engineering, technology, architecture, town planning, management, pharmacy and applied arts and crafts and such other programme or areas as the Central Government may, in consultation with the AICTE, by notification in the Official Gazette, declare”.

18. UGC was set up under the University Grants Commission Act, 1956 to inter alia make provisions for the co-ordination and determination of standards in universities, for promotion and co-ordination of University education and for the determination and maintenance of standards of teaching, examination and research in Universities.

15. RBI / DPSS No. 1501 / 02.14.003 / 2008-2009

16. DPSS.PD.CO. No.371/02.14.003/2014-2015

cover educational institutes which have a physical campus in India and which provide degree/ diplomas to students.

However, depending on the manner in which a course is structured, online courses could also be considered as distance learning, which is regulated under specific regulation in India.

## VII. Tax Considerations

Income tax in India is levied under the Income Tax Act, 1961 (“**IT Act**”). While residents are taxed on their worldwide income, non-residents are only taxed on income arising from sources in India.

Where EdTech services are offered by a legal entity incorporated or registered in India, the global income of such entity will be subject to tax in India. In the case of a company, the ordinary corporate tax rate of 30% applies. The same rate is applicable in the case of a LLP as well. However, in the case of a company a dividend distribution tax (“**DDT**”) at the rate of 15% is also applicable on the corporate profits from which the dividends are distributed to its shareholders. The dividend income is then exempt in the hands of corporate shareholders. In contrast, a LLP is subject only to a single level of taxation at the entity level, and distributions by the LLP to its constituent partners is exempt from tax.

Furthermore, if the Edtech platform offers services within India, such as training, certification programmes etc. Goods and Services Tax (“**GST**”) at the effective rate of 18% of the value of services provided applies. However, if the service is performed for a non-resident or is deemed to be provided outside India, and the same qualify as export of services as per the Integrated-GST Act, 2017 than such export of services should be zero rated and no GST should be payable. Normally the liability to pay the GST is on the service provider but the economic burden of the tax is often passed on to the consumers.

Withholding taxes may apply in a cross border scenario involving the provision of EdTech services by an entity resident outside India in return for payments made from India. The payee of the consideration shall have to deduct at the applicable rate based on the nature of income in the hands of the non-resident entity. Such an obligation shall arise only if the consideration flowing from the payee has an element of income that is taxable in India.

Ordinarily, business profits earned by a non-resident are not taxable in India in the absence of a permanent establishment (“**PE**”)/Business Connection (“**BC**”). However, if a non-resident has a PE/BC in India, the non-resident would be taxable in India at 40%<sup>19</sup> to the extent of profits attributable to the PE/BC, unless the profits qualify as royalties or fee for technical services (“**FTS**”). Royalty and FTS are taxable at 10%.<sup>20</sup> Therefore, characterization of income impacts the tax cost of doing business in India. Particularly, where characterization by Indian tax authorities is not in consonance with international principles, non-residents could potentially face the risk of double taxation (arising from non-availability of credit for taxes paid in India).

Further, as regards FTS, under treaties with some countries (for e.g., US and Singapore), consideration paid for teaching in or by an educational institution is also excluded from the purview of FTS. However, under several Indian tax treaties (including the treaty with the US), consideration for services qualifies as FTS only where the services enables the service recipient to apply the underlying technology independently. Furthermore, if payment for services do not constitute FTS, they would not be taxable in India unless the entity has a PE /BC in India. Additionally, it is to be noted that under domestic law, payment of royalty or FTS between two non-residents is also considered to be sourced in India,

19. Exclusive of applicable surcharge and cess.

20. After the amendment to the IT Act through the Finance Act, 2016 the tax rates for royalties and FTS has been reduced to 10% from the 25%. This is significant since most treaties provide for a 15% cap on the tax that can be imposed by India. In light of this change the availability of tax treaty benefits is not as important as it was before.

if the payer utilizes the information, property or rights or services for a business or profession carried out in India.

Another important consideration from a tax perspective include personal taxation of faculty or other employee visiting India and risk of collaboration arrangements between Indian and foreign institutes being regarded as Associations of Persons (“AOPs”). Characterization as an AOP, a separate taxable entity under Indian law, subjects the total income of all participants in the AOP to tax in India.

Further, the Place of Effective Management test (“POEM”), introduced in April 1, 2015, which replaced the erstwhile “control and management” test as the test of residential status for foreign companies. In light of the ambiguities surrounding the interpretation of the POEM, the Finance Act, 2016 postponed its implementation by a year; such that foreign incorporated companies shall be expected to observe the POEM as a test of residency only after April 1, 2017. After April 1, 2017 a foreign company would be deemed to be a tax resident in India if its place of effective management is found to be in India at any point in time in that fiscal year. For instance, according to the draft guidelines that been issued, making any significant commercial decisions through a single board meeting may be sufficient to make the foreign company an Indian tax resident. This would consequently mean that the global income of the entity will become taxable in India. The final guidelines are still awaited.

India has also introduced wide General Anti Avoidance Rules (“GAAR”) which provide broad powers to the tax authorities to deny a tax benefits in the context of “impermissible avoidance arrangements”. GAAR will come into effect from April 1, 2017 and would override tax treaties signed by India.

Further, the Government of India introduced the Equalisation Levy (Levy) in the year 2016. The Levy has been introduced to achieve the following two objectives:

- equalizing the playing field between resident service providers who pay income taxes in India and non-resident service providers who do not pay taxes in India;
- taxing the untaxed income of non-resident service providers who do not have a physical presence in India

The Levy currently imposes a 6% tax “on consideration received or receivable for any on consideration received or receivable for any specified services” which currently includes “online advertisement, any provision for digital advertising space or any other facility or service for the purpose of online advertisement”. As of now, the Levy is only applicable on online advertising industry. However, in 2016 the Government released the Report of E-commerce Committee on Taxation of E-commerce (“Report”). The Report suggested including several other services under the Levy. One such service being use of digital platforms for sale of goods and services; and online software applications accessed or downloaded through internet. If the same is introduced, it can affect the ed-tech sector and tax at the rate of 6-8% may be applicable on non-residents providing services through digital platforms.

### 3. Conclusion

With technology advancing at a fast pace, AI becoming a reality, it is clear that EdTech will rapidly evolve and with it bring new legal, regulatory and tax challenges. Charles Dickens, in *Oliver Twist* said that “*the Law is an ass*”. It certainly is when compared to the speed at

which technology is racing ahead. It may not be too unrealistic to say that the future of EdTech and its impact on education systems will soon be driven by AI systems who may have more capacity for (artificial) intelligence than humans.

## About NDA

At Nishith Desai Associates, we have earned the reputation of being Asia's most Innovative Law Firm – and the go-to specialists for companies around the world, looking to conduct businesses in India and for Indian companies considering business expansion abroad. In fact, we have conceptualized and created a state-of-the-art Blue Sky Thinking and Research Campus, Imaginarium *Aligunjan*, an international institution dedicated to designing a premeditated future with an embedded strategic foresight capability.

We are a research and strategy driven international firm with offices in Mumbai, Palo Alto (Silicon Valley), Bangalore, Singapore, New Delhi, Munich, and New York. Our team comprises of specialists who provide strategic advice on legal, regulatory, and tax related matters in an integrated manner basis key insights carefully culled from the allied industries.

As an active participant in shaping India's regulatory environment, we at NDA, have the expertise and more importantly – the VISION – to navigate its complexities. Our ongoing endeavors in conducting and facilitating original research in emerging areas of law has helped us develop unparalleled proficiency to anticipate legal obstacles, mitigate potential risks and identify new opportunities for our clients on a global scale. Simply put, for conglomerates looking to conduct business in the subcontinent, NDA takes the uncertainty out of new frontiers.

As a firm of doyens, we pride ourselves in working with select clients within select verticals on complex matters. Our forte lies in providing innovative and strategic advice in futuristic areas of law such as those relating to Blockchain and virtual currencies, Internet of Things (IOT), Aviation, Artificial Intelligence, Privatization of Outer Space, Drones, Robotics, Virtual Reality, Ed-Tech, Med-Tech & Medical Devices and Nanotechnology with our key clientele comprising of marquee Fortune 500 corporations.

The firm has been consistently ranked as one of the Most Innovative Law Firms, across the globe. In fact, NDA has been the proud recipient of the Financial Times – RSG award 4 times in a row, (2014-2017) as the **Most Innovative Indian Law Firm**.

We are a trust based, non-hierarchical, democratic organization that leverages research and knowledge to deliver extraordinary value to our clients. Datum, our unique employer proposition has been developed into a global case study, aptly titled 'Management by Trust in a Democratic Enterprise,' published by John Wiley & Sons, USA.

A brief chronicle our firm's global acclaim for its achievements and prowess through the years -

- **AsiaLaw 2019:** Ranked 'Outstanding' for Technology, Labour & Employment, Private Equity, Regulatory and Tax
- **RSG-Financial Times:** India's Most Innovative Law Firm (2014-2017)
- **Merger Market 2018:** Fastest growing M&A Law Firm
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- **IFLR:** Indian Firm of the Year (2010-2013)
- **Legal 500 2018:** Tier 1 for Disputes, International Taxation, Investment Funds, Labour & Employment, TMT
- **Legal 500 (2011, 2012, 2013, 2014):** No. 1 for International Tax, Investment Funds and TMT

- **Chambers and Partners Asia Pacific (2017 – 2018):** Tier 1 for Labour & Employment, Tax, TMT
- **IDEX Legal Awards 2015:** Nishith Desai Associates won the “M&A Deal of the year”, “Best Dispute Management lawyer”, “Best Use of Innovation and Technology in a law firm” and “Best Dispute Management Firm”



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## Research @ NDA

**Research is the DNA of NDA.** In early 1980s, our firm emerged from an extensive, and then pioneering, research by Nishith M. Desai on the taxation of cross-border transactions. The research book written by him provided the foundation for our international tax practice. Since then, we have relied upon research to be the cornerstone of our practice development. Today, research is fully ingrained in the firm's culture.

Our dedication to research has been instrumental in creating thought leadership in various areas of law and public policy. Through research, we develop intellectual capital and leverage it actively for both our clients and the development of our associates. We use research to discover new thinking, approaches, skills and reflections on jurisprudence, and ultimately deliver superior value to our clients. Over time, we have embedded a culture and built processes of learning through research that give us a robust edge in providing best quality advices and services to our clients, to our fraternity and to the community at large.

Every member of the firm is required to participate in research activities. The seeds of research are typically sown in hour-long continuing education sessions conducted every day as the first thing in the morning. Free interactions in these sessions help associates identify new legal, regulatory, technological and business trends that require intellectual investigation from the legal and tax perspectives. Then, one or few associates take up an emerging trend or issue under the guidance of seniors and put it through our "Anticipate-Prepare-Deliver" research model.

As the first step, they would conduct a capsule research, which involves a quick analysis of readily available secondary data. Often such basic research provides valuable insights and creates broader understanding of the issue for the involved associates, who in turn would disseminate it to other associates through tacit and explicit knowledge exchange processes. For us, knowledge sharing is as important an attribute as knowledge acquisition.

When the issue requires further investigation, we develop an extensive research paper. Often we collect our own primary data when we feel the issue demands going deep to the root or when we find gaps in secondary data. In some cases, we have even taken up multi-year research projects to investigate every aspect of the topic and build unparalleled mastery. Our TMT practice, IP practice, Pharma & Healthcare/Med-Tech and Medical Device, practice and energy sector practice have emerged from such projects. Research in essence graduates to Knowledge, and finally to *Intellectual Property*.

Over the years, we have produced some outstanding research papers, articles, webinars and talks. Almost on daily basis, we analyze and offer our perspective on latest legal developments through our regular "Hotlines", which go out to our clients and fraternity. These Hotlines provide immediate awareness and quick reference, and have been eagerly received. We also provide expanded commentary on issues through detailed articles for publication in newspapers and periodicals for dissemination to wider audience. Our Lab Reports dissect and analyze a published, distinctive legal transaction using multiple lenses and offer various perspectives, including some even overlooked by the executors of the transaction. We regularly write extensive research articles and disseminate them through our website. Our research has also contributed to public policy discourse, helped state and central governments in drafting statutes, and provided regulators with much needed comparative research for rule making. Our discourses on Taxation of eCommerce, Arbitration, and Direct Tax Code have been widely acknowledged. Although we invest heavily in terms of time and expenses in our research activities, we are happy to provide unlimited access to our research to our clients and the community for greater good.

As we continue to grow through our research-based approach, we now have established an exclusive four-acre, state-of-the-art research center, just a 45-minute ferry ride from Mumbai but in the middle of verdant hills of reclusive Alibaug-Raigadh district. **Imaginarium AliGunjan** is a platform for creative thinking; an apolitical ecosystem that connects multi-disciplinary threads of ideas, innovation and imagination. Designed to inspire 'blue sky' thinking, research, exploration and synthesis, reflections and communication, it aims to bring in wholeness – that leads to answers to the biggest challenges of our time and beyond. It seeks to be a bridge that connects the futuristic advancements of diverse disciplines. It offers a space, both virtually and literally, for integration and synthesis of knowhow and innovation from various streams and serves as a dais to internationally renowned professionals to share their expertise and experience with our associates and select clients.

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