TRANSCRIPT FOR ANANT AGARWAL: FUTURE OF EDUCATION & LIFELONG LEARNING (EPISODE 7)

Dr. Harpeet Singh: [00:00:00.27] Hello, everyone. I'm Dr. Harpeet Singh, welcoming you to the Future Work Pioneers podcast. Today, we are speaking with Dr. Anant Agarwal, the CEO of EdX. Anant, Welcome to the podcast.

Anant Agarwal: [00:00:14.73] Harpreet, it's my pleasure to be here.

Dr. Harpeet Singh: [00:00:18.04] So let's begin by learning a little bit about your background, where you grew up, your area of study, how you ended up becoming an academic and then an entrepreneur. You know what [00:00:30.0] are the key moments that shape your career?

Anant Agarwal: [00:00:35.11] I grew up in a small town in India, Mangalore. It's on the Arabian Sea, part of India. I went to high school there and then I went to IIT Madras, where I got my bachelor's degree and then I came to Stanford in 1982 to get my PHD in electrical engineering and my adviser there was John [00:01:00.0] Hennessy and also Mark Horovitz, both professors. John Hennessey went on to become the president of Stanford for many years. I got my PHD there. And in 1987, I joined M.I.T. as an assistant professor in electrical engineering and computer science. And my own research work was in the area of the building, high-Speed computer chips, microprocessors [00:01:30.0] and other computer chips. And that's the research I was doing at M.I.T. and I've been a professor at M.I.T. I still am a professor at M.I.T. for thirty-two years now. And I started their end of nineteen eighty-seven. Along the way I've started a number of companies and I've all for profit companies. There were five for profit companies in my career, starting with Virtual Machine Works, [00:02:00.0] which was a hardware product whose test complicated chips. I also did a software companies, also a wireless chip company, along with several colleagues. So, a number of chip companies along the way and EdX is my most recent venture. Unlike the five previous companies, this is my first non-profit venture. And what is funny is that I am working harder, much harder at [00:02:30.0] this non-profit company than at any of my previous for-profit companies. So EdX was founded in late 2011 and it was founded by Harvard and M.I.T. to really reimagine education. And so EdX is also a startup based in Kendall

Square in Massachusetts and in Cambridge and went into the startup and it is a nonprofit.

Dr. Harpeet Singh: [00:02:57.68] So can you tell us a little bit about the Origin story, [00:03:00.0] I mean, why does Harvard and M.I.T. get together to start a venture like this?

[00:03:07.85] You know, at seven, you look back at the circumstances that bring you to a given place are are so, so completely unplanned and simple actions that you take very much like in the chaos theory. You know, you heard how when a butterfly beats its wings and Amazon, they could be typhoons elsewhere in the world. With chaos theory, you can never tell, [00:03:30.0] you know, what leads to what. Similarly, in 2011, you know, several colleagues, neighbor brainstorming about how we could reimagine education. As, you know, education really hasn't changed a whole lot in hundreds of years. But still they used to teach in pretty much the same way. And education is a human right. We should really be applying digital technology to it in a big way. But really, digital technology had not really been applied [00:04:00.0] to education, but it had transformed everything. Cloud computing had shown up, a video distribution at scale had happened, social networks in the form of Facebook and so on had come up. And also, gaming had happened. And so, these four technologies came together in 2008, 2009. So, the timing was right. As my colleagues and I at M.I.T., so the leadership of M.I.T., Harvard, we're brainstorming and thinking about how [00:04:30.0] to reimagine education, how to apply these technologies to education and truly reimagine how education might look like in the future. That’s really how EdX was born. And it was great that Harvard and M.I.T. decided to fund it as a nonprofit and we created EdX and we launched the very first Mooc. It was one of the pioneers of the Mooc movement in the early days in the 2011 and early 2012. And my colleagues [00:05:00.0] and I launched a course in electronic circuits as the first course on EdX and this was rather an amazing experience. We had one hundred and fifty-five thousand students take the course from 163 countries. It was truly an amazing experience and really, that's so it was born. It started off with Harvard and M.I.T. being partners. Berkeley joined us, University of Texas system joined [00:05:30.0] us and very soon, today we've grown to 150 off the top universities and corporations who are our partners, including besides M.I.T., Harvard, Berkeley and University of Texas at Austin and the system use Texas system, our universities like Oxford and Indian Institute of Management in Bangalore and IIT

Bombay, EDH, Virtually [00:06:00.0] all the Ivy League schools are also our partners at this time.

Dr. Harpeet Singh: [00:06:06.13] Now that that's brilliant, I mean, you know, I don't think EdX has done something that was very much needed. And, you know, I've heard such touching stories where someone in remote parts of the world, you know, has access to education all of a sudden. Right. The best professors in the world are accessible to someone.

Anant Agarwal: [00:06:24.08] It's actually an absolutely amazing story out today. It's about nine years since [00:06:30.0] we started. And today, we have over 27 million learners from every single country in the world and 150 institutional partners. So, the top universities and corporations, the world creating content on their desks. We have over 3000 courses on EdX, which the learners take some all the stories beyond the big numbers here. Some of the individual stories are absolutely, you know, touching. I remember one of our students, [00:07:00.0] Petrucci was a young high schooler, 50 years old and in Mongolia, and that locked door and he took the circuits course. This was the course taught by my colleagues and I on EdX, the first EdX course, and he uses young, brilliant high schooler. And he got a perfect score in the entire course. And the circuit score is a MIT hard. It's one of the hardest courses at M.I.T. [00:07:30.0] and we were trying to be very high fidelity in the sense maintain the same quality for the online course in terms of rigor and quality as the campus course that I used to teach. And so, this 15-year-old got a perfect score on a course that is taken by sophomores that second year students at M.I.T. The student got written up in The New York Times. A New York Times reporter actually went to Bator do [00:08:00.0] shadow and wrote shadow an amazing story about him in The New York Times. And he ended up coming to M.I.T. where he completed his undergraduate degree and then he went on to work, I believe, he went to Facebook and so on. It's just an amazing story.

Dr. Harpeet Singh: [00:08:19.53] That's brilliant. So, the context of our discussion today is future of work, as you know. And in that context, I had seen that M.I.T. [00:08:30.0] had constituted a new committee to rethink the curriculum. It was a task force of sorts. And I was also interviewed by the task force. This was maybe a year and a half, two years ago. And I'm wondering whether, you know, these folks interacted with you to see

how online education can become part of this new phenomenon, right, how educationally re-thought at MIT.

Anant Agarwal: [00:08:59.13] So the M.I.T. task [00:09:00.0] force was looking at what the future of education might look like, and as part of that, they talked to many leaders in the community, such as yourselves. Of course, they're very aware of what's happening with the brainchild of hybrid M.I.T., namely EdX, and talked to several offers at EdX as well. And truly, a movement like EdX with online education is not only reimagining education as we know it, but it is also [00:09:30.0] impacting the future of work in a really, really big way. As we all know, technologies like, you know, basic digital stuff to A.I. and automation are completely transforming the future of work. The various studies show that by 2030, you know, more than half of today's jobs will be transformed into newer jobs that will be gone. And so just imagine having to work it on this for half the planet, if half the planet is out of a job because of automation [00:10:00.0] and technology. What do we do? I mean, clearly, they can't be out of a job. So, they all have to be upskilled. And the jobs will transform to newer jobs. And the people have to be up skilled in do these newer jobs where maybe instead of, you know, moving goods in a truck, that maybe you would work in I.T., for example, or if you were doing marketing now, maybe you're using data and you become a digital marketer. So, the advent [00:10:30.0] of data, a data driven decision making using A.I. and machine learning. These are all completely transforming how we think about work. And then very quickly, you realize that we have a planet scale up-skilling problem on our hands. And the only way around that is to educate people and get them to up -skill. And then you think about people in one of our students is a professional by the name of Andrew. And he you know, he works [00:11:00.0] at United Airlines and he told us a story and he realized that he needed project management and more business skills to be able to advance in his work. And so, he has a child and no way he's in his mid 30s. No way is he going to go back to university to get a degree. You know, opportunity cost is too big, is not going to be able to do take or take off a whole year for work and go and study there. So. So it's really hard. So, what does a professional like that [00:11:30.0] do? So, he discovered the Micro master’s in project management on EdX from the Rochester Institute of Technology. He completed that micro masters. And Andrew today is a project manager at United Airlines. So just one example of a story of learners who can up skills, who are professionals, who need to up-skill. And in order to do that, what there are solutions. One, they have to learn online. They can't go to a campus. And so, for the future of

work, [00:12:00.0] working professionals have to learn online. They have to learn where they are. And learning has to come to them as opposed to them going to learning. Second, learning has to become modular. No way he could have completed a full master's degree, didn't have the time. To the micro master's is about 25 percent of a master's degree. It's a small piece of a master's degree, but a valuable credential called a micro master. So, he earned the micro masters from the Rochester Institute of Technology and he was able to get a career advancement. So, a modular credential, [00:12:30.0] a smaller amount of time that you put into it fully online program and a high valued credential. These are all important for learners to be able to up skill and re-skill and of course, lower cost. You can earn a full micro masters for about a thousand to two thousand dollars and admission is free. So, it's open admissions, very low cost online. So, these are all some of the radical ways that we are rethinking education for the future of work.

Dr. Harpeet Singh: [00:13:00.42] I [00:13:00.0] think that makes a lot of sense given the context we are in. You know, there was just a report recently that John Hopkins in this because the COVID crisis has lost maybe 40 or 50 million bucks, you know, and then they're really going to be struggling, you know, moving forward and Clayton Christensen, I think there was an article in about a year and a half ago where he predicted that 50 percent of U.S. colleges are bound for bankruptcy in the [00:13:30.0] next decade. So, you know, every university really needs to reimagine how they're going to rethink these degrees and rethink the curriculum. Well, how does the online component, some perhaps supplement or even displaces the brick and mortar component? Right. Are you seeing a greater adoption? I know at Harvard where we're using a lot more of EdX, right? With the classes [00:14:00.0] no longer on campus, are you seeing more such requests coming from other universities as well?

Anant Agarwal: [00:14:06.52] So certainly before the COVID pandemic in early March or in February, you know, the world was thinking about online learning, reimagining education for the future of work. It was nice to have and so on. And only a small percentage of the world was learning online and then add on middle of March, everything changed. One hundred percent of the world was [00:14:30.0] learning online whether you were in university or in a job, and you were also working 100 percent remotely. So, everything completely changed overnight. And suddenly, not surprisingly, a lot of the things that were nice to have became mission critical and not just for

university, but also for companies and so on EdX, now, we have seen just a skyrocketing of interest in online courses and programs. So, for example, are our [00:15:00.0] enrollments in EdX courses in the last week, is up by 1000 percent over the first week of March. And so, in six weeks, we've seen a 1000 percent increase in the number of people enrolling in online courses. And we did a survey of the learners to say, you know, why are they coming to EdX? Why are they learning at this time? And thirty eight percent of the learners are saying that, look, [00:15:30.0] they have these extra times on their hands, and they want to learn something new. Eleven percent of them are telling us that they are out of a job and they're using this time to up-skill. And about 16 to 17 percent of learners are telling us that they're just using this time to get a certificate to learn and up-skill so that they can get a better advancement in their current job. And so, we have a huge range of reasons why people are coming during this time and COVID 19 has [00:16:00.0] simply accelerated what was a gradual trend that was happening previously.

Dr. Harpeet Singh: [00:16:06.28] Well, that makes a lot of sense and it's amazing to see a thousand percent growth in a week that beats any startup numbers.

Dr. Harpeet Singh: [00:16:14.17] And so when we think of Mooc's, is that still a viable framework, given all the criticisms around completion rates and the fact that education is not as personalized? How [00:16:30.0] do you how do you think about Mooc's?

Anant Agarwal: [00:16:33.59] So books really are online courses, and unfortunately, people compare the completion rate of people who are just casually coming into a course and checking it out. You know, people that co-mingling those statistics with people who are taking the course seriously on a campus, that people have paid the fifty thousand dollars in tuition for the year and then they register for a course, when they talk about completion [00:17:00.0] rates, people count the people that are have registered for a course and are taking the course and have not dropped it. But in a Mooc, everybody is trying things out for various reasons and all sorts of reasons why people are in a course. Some people want to learn something new. They don't get about a certificate. But if you look at numbers of learners that are in there to earn a certificate, then that is a more fair comparison point and on EdX for people that have paid for a certificate, the [00:17:30.0] completion rate across the board for Mooc's is about 60 percent. And the 60 percent is a good number compared to the past rates in many

universities. And so, I think I think people have used statistics in a way that statistics should not be used in painting Mooc's as having low completion rates.

Dr. Harpeet Singh: [00:17:53.63] Makes sense. I think these looking at certificate holders is a much better metric than an overall because people [00:18:00.0] can just sign up for free. So, it doesn't really cost them anything to sign up.

Anant Agarwal: [00:18:03.86] You know, I you know, I like to joke up and ask people what is a completion rate for YouTube videos? You never ask that question because, you know, when you ask people how many of you have watched a YouTube video to the very end, nobody does. So, the completion rate for YouTube videos then is zero percent. So, does that mean that YouTube videos are not a good thing? A great thing. People learn a lot from YouTube videos. But I think it's very important for us to realize that [00:18:30.0] we have to use the right metrics and for the right modalities when people can come in and take free courses and maybe sit in on one lecture or two lectures. They are getting something good out of it. And so, we can't use 19th century metrics to look at 21st century technological advancements.

[00:18:51.4] Makes a lot of sense. So, when you know, you touched upon credentialing a moment ago and I think credentialing is something [00:19:00.0] also that needs to evolve, right. I mean, people think about degrees as the final of the final way of judging a person's worth. And in some ways, that is also rapidly shifting. So, a few companies like NY have removed a bachelor's degree as a, you know, requirement to give someone a job. And so, but I think that the real challenge is that how do you measure the skills right now? How do you determine [00:19:30.0] someone know something?

[00:19:33.89] I think again as new technologies come in; we have to think about how do we how do we measure in the past? People looked at pass rates, write it up. Did you pass as a sign of success? But no one cared about whether, you know, would you pass the course whether you got a good job or not. So, we measure outcomes based on how we conduct surveys of learners and are learners who have completed micro master's programs, [00:20:00.0] for example. Eighty seven percent of them are telling us that they had a career advancement within three months of getting a micro master's certificate, that their career advancement could be a pay raise, a promotion or a new job. And to us, that is a good measure of an outcome. Did you get what you were

looking for? Did you get an outcome that you cared about? And did you get the right skills that you would able to get a career advancement to do better at your job? So, I think it's important to look at outcomes rather than [00:20:30.0] board meeting less metrics as to how much time did you spend in the course or how much seat time did you put in? I think it's really important to look at outcomes, and that's what we do now.

Dr. Harpeet Singh: [00:20:42.38] It may makes sense. I think that that's amazing that you've got those kinds of outcomes. So, are you measuring those through surveys? How do you measure that?

Anant Agarwal: [00:20:51.47] Yes, we measure those two surveys and we survey learners who completed programs like a micro master's program, for example, right after they've completed [00:21:00.0] three months after they've completed and do these longitudinal studies. And we find that 87 percent of learners are claiming a career advancement as a result of their micro master's credential.

Dr. Harpeet Singh: [00:21:14.06] And do you find employers approaching EdX that, hey, find me the best person who is coding Python or some other, you know, have some skill? Our employers are also pushing you.

Anant Agarwal: [00:21:28.13] Absolutely. You know, EdX has [00:21:30.0] both a business to consumer business, B2C where we have these 27 million learners coming and taking courses. We also have a B2Bwhere we work with companies to help up skilled at employee basis. We have over 700 corporate B2B customers of FedEx, and many of these companies care deeply about not only up-skilling their employees, but also using EdX courses to help screen you coming people, to screen potential [00:22:00.0] candidates for jobs. As an example, you know, we've partnered with the Tech Mahindra in India and Tech Mahindra will guarantee an interview to anybody from India that has completed one of 10 micro master's programs, to complete any one of programs like AI from Columbia or Supply chain management from M.I.T and so data science, for example, they will guarantee them with an interview. And so many corporates are stepping up in [00:22:30.0] and offering interviews of the sort. A Boston Globe in Boston has just a few months ago launched a program that will guarantee an interview to anybody that completed certain data science programs on EdX. And so, we

have more and more companies that are stepping up, looking to use these new credentials to either hired new employees or up-skilling at existing employees.

Dr. Harpeet Singh: [00:22:58.49] Now, that's great. So, another [00:23:00.0] related question is around the schools that are, you know, you know, not preparing students for the jobs of the future. Schools are really struggling to streamline their curricula. All right. They don't have the resources of someone like an MIT to really engage deeply with the industry. So how do you know, see those schools evolving? I mean, one of the ways [00:23:30.0] in which something like an EdX can help them.

Anant Agarwal: [00:23:35.32] So, you know, there are tens of thousands of universities around the world and they've all sent their students home and the students are learning from home. My own daughter, Anisha, is a junior in college and she's in the next room and she's studying completely online. So, the entire world, one hundred percent of the world's students went online at the roll of the dice. Very quickly now, 100 percent of [00:24:00.0] people went online. And so what we do is we've launched a program called EdX Online Campus, where a university anywhere in the world can sign up today with EdX and they can get free, they can get a catalog of EdX courses from M.I.T., Harvard, Berkeley and a number of our partners completely for free for their campus students during this COVID period. And [00:24:30.0] so we have opened it up to any university , any and all universities around the world and within 24 hours of launching this program last week, you know, we had a 250 filled out applications where people are looking for the universities to become users of EdX content. And so, we're looking for ways to help universities, not disputing COVID 19. But I believe that even after we through COVID 19, I believe that the future of learning [00:25:00.0] is blended. We've always believed it. But I believe COVID 19 has only accelerated this future where the future of learning will be blended. It will involve both in-person learning and also online learning. And EdX online campus is just one kind of offering where universities can sign up their students to take EdX courses. And so they this is a way in which the universities can augment all the courses that they offered [00:25:30.0] themselves with content from other partners so that the students can benefit both during current times when they don't have a lot of online courses and certainly in the future, when they can also create a blended modality of learning.

Dr. Harpeet Singh: [00:25:47.0] So, very interestingly, as the cost of higher education is skyrocketing, right? You've got something on a place like a Boston University or Northeastern here in Boston [00:26:00.0] where both of us are. You know, they the cost is somewhere in the ballpark of sixty thousand dollars, seventy thousand dollars a year with room and board. And as that approaches one hundred thousand one hundred fifty thousand in the next 20 years, very few people are going to be able to afford, you a brick and mortar university. So. And my concern is that, you know, we may end up creating a two tier [00:26:30.0] society where the elite or the rich end up in a brick and mortar university and the folks who cannot afford education end up in an online context. But we know that, like, as you mentioned, blended learning is important because you develop soft skills, interpersonal skills. Right. In a brick and mortar context, it is harder to do that online or am I [00:27:00.0] wrong in that you think is it possible to develop those skills online as well?

Anant Agarwal: [00:27:06.35] You know, I think, first of all, I don't buy the argument that there will be a world of the future where the wealthy get to go on campus and all the others get to do online programs. I just don't buy that at all. For many reasons. One is there are any number of online programs today, degree programs from other universities [00:27:30.0] and from other online for-profit companies where the prices of their online degrees are the same or comparable to doze off on campus degrees. So, you shouldn't at all assume that online is cheaper in general. Second, in terms of quality, you know who's to say which is better? I think there are many benefits to online, there are many benefits to in-person and clearly the blended model [00:28:00.0] has been shown to be better than exclusively online or exclusively in person. EdX, for one, is working with the university partners to create higher quality programs, as well as lowering the cost for everybody to make education accessible to everybody. So, as an example, now we have a master's in analytics with our partner, Georgia Tech, for ten thousand dollars. The campus degree is forty-three thousand, forty-four thousand dollars. And the online degree is 10,000 dollars. [00:28:30.0] And it is a scale to degree. And people get the same credential, the same degree, the same piece of paper. Similarly, you have a computer science degree from UT Austin, and that is ten thousand dollars. And that just step, last week we launched a master's degree from the number one online master's degree by U.S. News and World Report in Mechanical Engineering from Purdue University on EdX and that was launched last week. So [00:29:00.0] we are launching a number of these programs that are affordable and also increase access

and, in many cases, to provide the same credential that learners earn on campus. And in terms of quality. I would say that online is comparable to on campus. But then when you blend the two together, online and in person, it is simply going to be that you can get the best of both worlds. And I see a world where people who go to campus will be [00:29:30.0] clamoring for some online content. It gives them flexibility. They can pace themselves. They can get multiple tries on homework. They get instant feedback. I believe that even campus education is going to move in the blended direction all the faster now because of COVID 19.

Dr. Harpeet Singh: [00:29:48.76] Do you need to be in a context where you interact with people physically in order to learn interpersonal [00:30:00.0] skills? Or can we evolve into a society where we can do that or zoom?

Anant Agarwal: [00:30:07.06] To a question about soft skills. I don't for a moment buy that soft skills can only be developed fully by interacting face to face. Of course, you know, face to face interaction is great, you know, and hunker down at home during COVID 19 during this period during when we are recording. And it's pretty clear that I'm really missing the interaction with my colleagues [00:30:30.0] and students and others. It's clear that we're all missing that. At the same time, we also know that in-person interaction helps you develop many of the soft skills like empathy, listening skills, teamwork and so on. But I also do want to point out that you can also learn those online in virtually all the education have gone through in virtually all the education that exists in universities and colleges today, soft skills are not taught as a discipline. You [00:31:00.0] hope you pick them up. However, you can teach soft skills as a discipline. And in fact, on EdX, we have launched a number of soft skills courses at programs. So, for example, we have soft skills courses on EdX. We have a professional certificate in soft skills from Rochester Institute of Technology and there are multiple courses in critical thinking and teamwork and negotiation and presentation skills and storytelling. [00:31:30.0] These are all some of the pillars of soft skills and these can all be learned online, you just have to go and take the professional certificate and soft skills and you can learn for free and for a small fee you can even earn a certificate in soft skills and you can learn all of these things online. In fact, you know, our children that all digital natives and they're all learning how to communicate and interact with everybody completely online. People go to dating sites and date online. So, the whole world is [00:32:00.0] going digital. So, my belief is that the future is going to be blended. It's

going to be both digital and it's going to be in person. And I think COVID 19 will only accelerate this blended future.

Dr. Harpeet Singh: [00:32:15.0] May makes a lot of sense. So, what does the roadmap look like for EdX, say, 30 years? Fast forward.

Anant Agarwal: [00:32:23.53] You know, I've stopped predicting things out into the future, but virtually everything that I've said will happen 10 or 20 years [00:32:30.0] from now has happened within a short amount of time. When we started at, I said that one day universities will give credit for moocs. One day at different universities will be adopting moocs for credit on their campuses. One day, multiple universities will band together and offer hybrid degrees where people learn that credit bearing courses from each of these universities. One day we [00:33:00.0] will have exams on EdX that have great fidelity in terms of technologies to prevent cheating and so on. And in the early days of EdX in 2011, in 2012 and I talked about it, I said, oh, it will take 10 years or 20 years to get there. But shockingly, our first credit bearing courses on EdX came from Arizona State University. And those happened, you know, six years ago and happened within a few years of EdX. And [00:33:30.0] two years ago, we launched a hybrid degree from Arizona State University and M.I.T. in supply chain management, where students can complete the micro master's in supply chain management from M.I.T. And then after admissions into ASU, they can complete a supply chain management, fully online degree on EdX and for about twenty thousand dollars. And so here you are. But you have the top two supply chain management, the top two ranked universities collaborating [00:34:00.0] to offer a master's degree. Now, all of these things happened very quickly. So, what do I think will happen in 30 years? I believe that education will become modular, Omni-channel and lifelong. I believe that these three are the future of education, modular means that today education is one size fits all. You get a full degree if you live off it through your drop out, you're a failure. I believe education will be modular, that [00:34:30.0] people will be earning micro credentials for smaller pieces of learning like micro masters at the graduate level or micro bachelors at the undergraduate level, where they'll be earning for about six, seven, eight, nine credits. What the work they will be getting a valuable credential so they can showcase smaller amounts of work at these modular credentials will stack up into full degrees. And many of these full degrees will come from multiple institutions. It will be like education has

gone. The Lego [00:35:00.0] way, like Lego education. But you can mix and match pieces of education from different places to create full degrees.

Dr. Harpeet Singh: [00:35:08.69] Now, that would be a meeting future. I think we all want that.

Anant Agarwal: [00:35:14.21] So the one is modular education. The second is omni-channel learning, where education will just like retail, has gone omni-channel. You Know Amazon now owns Whole Foods where you can shop in person or you can order online. Similarly, education [00:35:30.0] would become omni-channel. I believe every university that is still standing at that time will be offering both online learning or in-person learning, both for the residential students and for their online students, and really blended will become the new normal. And third is lifelong learning. We're today learning generally tends to be equated to learning between the ages of 18 and 22. You learn [00:36:00.0] for four years and then you work. I believe in the future learning will be completely lifelong where people will be learning throughout life. We are already seeing that happening for the future of work where you have to keep learning just to stay abreast of where you are, and you have to learn to make progress. As I said, 87 percent of all micro master's owners are seeing career advancement because of the credential, and most of these people already have a degree. So I think that lifelong learning would become commonplace and [00:36:30.0] maybe a day will come when you complete using micro bachelor programs that we've launched on EdX from our university partners will complete one year of a college degree using micro bachelors while you are in high school. Then you will go to a campus to get the campus experience for one year or two years maybe. Okay, so you spend one or two years on campus to get the campus experience where [00:37:00.0] you interact with other students and so on. And then maybe you leave university after two years and go to work and you'll keep learning while you work, upskilling as you go throughout life. And so, learning becomes lifelong and a continuum as opposed to you come in for a short amount of time for 40 years, and then you go and work for the rest of your life.

Dr. Harpeet Singh: [00:37:22.61] No, that that that's very exciting. So, I think that's exactly where we are headed, right. I mean, given these changes [00:37:30.0] you described, and I think each one of these is being validated in some way or another.

Anant Agarwal: [00:37:35.94] I think they're headed there. And we are working with our university partners to create this new future and our university partners and EdX, we're working on this, you know, for many years, modular learning, omni-channel education and lifelong learning. And what COVID 19 has shown us is that as we've all been sent home, suddenly [00:38:00.0] everybody has become a lifelong learner, or everybody has become an omni-channel learner. And everybody's looking for modular credentials. You know, enrollments in our micro master's programs, it's our graduate level modular credentials has gone up by 300 percent over the past six weeks. And so, admits across the board are going up. And people are looking at these modular credentials [00:38:30.0] as something that can stand them in good stead, whether they're working today or if they've lost a job and are looking to up-skill and beef up their resumes so they can post this credential on their LinkedIn profile or in their resume.

Dr. Harpeet Singh: [00:38:46.69] Yeah, may make sense. So, any parting words for the audience before we go?

Anant Agarwal: [00:38:53.63] You know, I think the future of learning is a lifelong and I think all of us have to become lifelong [00:39:00.0] learners. And I don't think it took us COVID 19 to realize that I think over 90 was simply accelerate us into the future of modular, omni-channel and lifelong learning. We launched a course on EdX, on how to learn online. I think how to learn online is becoming an important life skill. And so, we launched this course two weeks ago and we already have over 30,000 learners, who are taking this course and many of them are telling us, oh, [00:39:30.0] my goodness. I did not really realize how to learn online that there are certain disciplines you have to use. Learning online is a bit different than learning on campus, where you have to create various strategies for yourself. So, we launched an online course that helps people figure out how to learn online, and so I would encourage you to go check out this course and see what online learning is like. If you haven't gotten into it and if you're already doing online learning, well, then you're one step ahead already. [00:40:00.0]

Dr. Harpeet Singh: [00:40:01.49] That's great. That's great advice. Thank you so much. It's been such a pleasure. Anant, speaking with you. Very inspiring. And we'll look forward to continuing the conversation.

Anant Agarwal: [00:40:10.88] Thank you, Harpreet. This was up really terrific. And I really enjoyed my conversation with you.