

Online learning: ugly duckling or black swan?

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For the past twenty years, online education has played second fiddle to its face-to-face equivalent; often reduced to a less prestigious marketing side-show within the industry. This article looks at how that perception is changing and how through utilizing new technologies in the right way; online education is rising from the understudy to the main event.

A background to online learning

For years, the biggest challenge for online learning was to step out of the shadow of face-to-face learning. To not be considered as a dumbed down alternative for those not smart enough to end up at Harvard or Oxford when they were 18. It has, somewhat unfairly, laboured the reputation of being 'easy', 'lowly' and 'lax'. There are no stern-faced invigilators stalking the halls of an exam room. There are no 400-year-old coat of arms with attached Latin mottos. Nor is there the perceived rigor of exams crammed into one month, whilst juggling the demands of arguments with your first love, writing features for the university paper and late night games of beer pong at the fraternity house. So, online education has played the understudy for the best part of two decades.

Fortunately, that has changed. The advent of a forever-online world means that any educational institution worth its salt has invested in the development of online equivalents of their traditional offerings. Even the most prestigious of brick-and-mortar establishments have understood the need to provide learning to those unable to come and live in their city. If not, they would have been left behind.

The move to omni-channel education

For a while 'blended learning' was a buzz-word among leading schools; now it is met with rolling eyes and disinterest. Why? Because now all learning should be blended. It's like saying 'my healthcare is blended' or 'my banking is blended'. All customer experiences should now have an online element, at the very least to increase efficiency or for record keeping.

Think of the battle between high street versus e-commerce as a parallel. It's no longer a competition; it's all one and the same. Customers don't decide to shop either online or on the streets, they wander fluidly between both in a truly omnichannel experience. Any brick-and-mortar store that doesn't have an online presence that mirrors their in-store branding is met with scepticism and derision. It's no longer a competitive advantage but a minimum requirement to enter the market.

We have our impatience and need for convenience as consumers to thank for this. In the past, we may have accepted that a certain top didn't come in our size, or that it might take a few weeks for a certain item to arrive. Not anymore. In an ever-connected world, there's no need to wait nor put ourselves out. It's the same in education. Learners aren't as prepared to delay their progression nor rearrange their lives in pursuit of new skills or a new qualification. And the industry has had to react.

We also have tech to thank. There are now ever-improving proctoring systems in place to ensure that plagiarising on an exam or paper is just as difficult virtually, if not harder. The improvement of Learning Management Systems, equipped to serve on any device, mean that students can conceivably work any place, any time and the age-old excuse that 'the wifi wasn't working' carries less weight. Teaching online is as easy as it has ever been. Online professors are no longer a few reclusive, tech-savvy minority of the faculty, who are happy hunched over in a darkened room, delivering to a laptop-mounted webcam. In some instances, like IE's WOW room, teachers are giving classes in enhanced versions of their natural environment. The accusations previously labelled at online education in the past, no longer hold water.

So, if parity is on its way, or has already been achieved, then the next challenge for online learning is to supersede face to face and even disrupt it. In order to break down how we achieve this goal, it's important to separate online learning and define it a little:

Asynchronous learning

This is the most common form of online learning and the most common form of adult learning in general. It is learning that is not bound by time restrictions: It's anytime any place. Over the years, it has become a staple of any blended program, and here's why:

1. Self-paced

This is perhaps the most obvious and important benefit. Especially for professionals, the ability to adapt when they learn around their schedule and commitments is ideal. The biggest obstacle to those deciding to dive back into learning is finding the time to do so around a full-time job. By removing this barrier, you open up your learning to a whole new market. And, we have seen this reflected with the push towards lifelong learning and the exponential growth of providers like Coursera.org, Linda.com or Udacity.

2. Variety

By moving the learning to an online environment, you also increase the ease of access to different types of learning materials. Whilst in a class, it may be complex to switch from a reading, to a lecture, to a video, to an assessment, this is seamless online. The majority of learning management systems support all forms of media and switching between them is done at the speed of a click.

3. Data Collection

It wouldn't be an article in 2019 without mentioning data. But it's true and relevant. If you students are accessing your content through a learning management system then there is a mountain of data you can collect from them. It can be: Time spent on the platform or specific piece of content, scores on assessments, frequency of interactions in a forum,

time of day they sign on etc. Equally, what you decide to do with this data is endless. We will touch on the importance of being smart with your data later on.

4. Adaptive learning

Another buzz word from education conferences of the past five years. The ability to direct students to different content, depending on their efficacy in their learning until then has always seemed incredibly desirable. With online learning this is undoubtedly made a great degree simpler. Algorithms are now in place to place students on different paths depending on their response to previous learning. The theory being, that this adapted journey will be more personalized and customized to their needs. Also, as the credibility and usage of AI grows in education, this will continue to improve. Think about a Netflix-style learning environment, where you are recommended content depending on your ability, topic interest or even delivery method preference.

5. Convenient

To finish, another more obvious advantage. Besides time, a huge barrier to prospective students is the necessity to be at a certain place on a certain date. By eliminating that need, you encourage a wave of new pupils to restart their learning. The introduction of the MOOC (Massive Open Online Course) is perhaps the best example of this. Started by companies such as Coursera and EdX back in the early 2010s, the mission was to provide high quality education to people all over the globe...for free! For the first time in history, it didn't matter whether you were a son of bus driver in Mumbai or a single mum from Nairobi managing a household of five, you could sit in and enjoy a lecture from an Ivy-League Professor. Whilst the debate may rage about whether they achieved their goal of bringing education to the world or not, the numbers are hard to ignore. Coursera has an ever-growing network of 27 million learners, which would put it in the top 50 countries in terms of population in the world. Quite an alumni!

Synchronous online learning

This is the type of learning everyone will be familiar with. It's what you (almost certainly) received at school and probably at university. A professor at the front, 20 or so students in front of them and a topic and a couple of objectives to get through in an hour or so. All happening there and then. So why's it so popular? Well, firstly, because it's easy: A room, a few chairs and something to write with and you're good to go. Also, because it relies on one person's ability to take (an often complex) subject matter and reframe it to be easy to understand and enjoyable in the process. And that is one of the reasons why face-to-face learning has had a monopoly for as long as it has. To this day, if you ask anyone what was the most memorable part of their studies, more than half of them are going to list a particular teacher in their response. There will have been something about them that just made the learning easy, or fun, or both! As of yet, neither technology nor innovation has disrupted the dynamic that we mentioned earlier: Conductor at the front, members of the orchestra at the back, hanging on his or her every word and move. At a conference I attended in 2017, I heard the Keynote speaker Bryan Alexander, futurist, researcher and educator state that whilst a doctor from the eighteen hundreds would be totally lost if he stepped into a hospital today, a teacher from that century would not have the same sensation in a modern day classroom.

And how does this differ for online learning? Well not much, which is perhaps why its benefits have been less celebrated. For many institutions, the challenge for synchronous learning is to replicate face-to-face learning as much as possible, ensuring the experience their students receive is comparable to their traditional classes. This normally includes investment in a well-known, video conferencing software and the teacher delivering the content via a webcam, often sat in a small room where the wifi is of an acceptable quality. They may be able to see their students on small, pixelated corners of a laptop screen and will occasionally hear questions or doubts from the those confident enough to share their confusion.

And here in lies the problem.

In this scenario, you are not recreating the environment that has functioned so well for the best part of 200 years. And by doing so you, both literally and metaphorically place them in a box, unable to perform their magic. Go back to your best professor. Think of the times they picked on you with a question, because they saw a quizzical look on your face or you drifting off. Not recognising that you are taking the professor (your biggest asset) out of their natural environment is the biggest mistake institutions can make when designing synchronous, online learning and a trap they fall into all too often.

To avoid this trap, and others, we've put together a guide of how to get the most of your real-time classes and not simply try and replicate face-to-face but surpass it.

1. Providing a worthwhile experience:

Live classes are expensive. You will need to pay a faculty member for their time, license with a software provider, rent the space for a class, factor in the cost of IT support and also the program management team. They are equally expensive for students, they are investing valuable time and effort: Especially in Executive education. Therefore, you need to make sure it's worth it. Make them as interactive as possible and make the most of having all your students in the same place at the same time. Ask yourself the question: 'Could this be replicated in a webinar?' If the answer is yes, then don't waste precious time and money on a live class.

Use a pedagogical approach that works for you to deliver an interactive experience. Make sure you ask students to contribute to discussions. Get them working in groups or breakout rooms on a problem. Plan activities, like polls, which require them to do something, rather than sit passively through a didactic lecture.

The way we do it at IE is through the WOW Room. The WOW room is funnily so, not just a room, it's a platform. Initially, the project started from the need of creating a physical space that would allow our faculty to let their passion and knowledge come through, even if they are addressing their students online (avoid the box at all cost). Our primary goal then became developing a room that combines the freedom and versatility of a brick-and-mortar class, with the advancement of the digital world, and that is how the WOW Room Studio was born. A 48-screen video wall, with a face tracking camera and a powerful computer running it. Simple enough right?.

It's primary advantage is that, unlike your typical video-conference set ups, the faculty is able to freely move around a wide open space in the same way they can in a classroom. The physical limitations that come with being seated and confined to a small room have been removed. Also, as the WOW Room features 45m² of screens, the teacher is able to see the expressions of their students in real time. Just like your favourite teacher, the WOW Room teacher is also able to pick on you if they see you looking stuck or bored. And then, the magic (or complications begin). How can we ensure that this space is not just a glorified lecture hall? Enter WOW Room software. Designed by its users, it includes multiple tools that will push both faculty and participants towards an engaging learning experience.

2. Don't lose the magic

Remember what we said earlier. Traditional education has been bulletproof to disruption over the past two centuries. So it must be doing something right. Make sure you don't lose what made it good in the first place.

Take this example. A few months ago, I spoke to a student embarking on the Global MBA at IE. She spoke of how incredible the face-to-face immersion week was, how fantastic she found it to meet so many new people, from different backgrounds and how devastated she was to be leaving them, returning to her home city and not seeing them again for another 18 months.

The WOW Room allows for a truly communal experience. The software we developed allows other students to see each other at all times. Therefore her disappointment is tempered somewhat by seeing them, through her

camera, every Saturday morning. Talking with them prior to class. Asking them about their week. Seeing them smile as she cracks an 'in-joke'. It may sound insignificant, but these little wins, impossible on your typical video-conferencing software, make a huge difference to student satisfaction.

So this replicates a normal class. Now, how can we go beyond it?

3. Be smart in the use of you tech and data

In 2001, America launched the no child left behind campaign. The feeling was, they had failed too many students, often from impoverished or tough backgrounds, for too long, and they were going to data science to solve it. But it didn't work. Why? Because, as Simon Rodberg points out in his HBR article Data was supposed to fix the US education system. Here's why it hasn't, they weren't using it in the right way. They focused all their energy on endless testing to see if students had arrived and the landmarks they should have. The result - a culture of teaching (on the very edge of cheating) to pass exams and extreme student burnout. They weren't being smart in their use of data. They were using it to test children and build a picture of performance based on variables they couldn't control: Whether the student had slept the night before, if they had eaten that morning, what the weather was like, whether it was the anniversary of a horrible memory, if they were they being bullied. Instead, they should have used their data to improve the variable they can control: Quality of teaching. Which methods work? At what times of the day? In what group sizes? And, so on...

So that's what we did. We use our technology and years of learning to enhance the quality of teaching. Firstly, we use various algorithms to objectively track student participation. Quantity that is. Then, we correlate it with 'hands-raised' and questions asked to aid faculty in giving enough opportunities to contribute to everyone in the class.

Additionally, the aforementioned analytics allow us to take actions based on the decisions that students make during the class. Imagine you, as a teacher, wanted to differentiate the class based on the prior knowledge of a topic. You want to end up with the most knowledgeable in a work group alone, the middle of the range working with a teaching assistant and the least knowledgeable in a structure group with yourself. With our polling software this is easily done. Students can be divided into work groups dependent on their answer.

Finally, we use an emotion recognition software to track attention and engagement. Currently we are working on a beta version to analyse this data. Exploring how such information can guide the various parties across the institution, not only faculty. Whereas in a traditional class setting, you may have been lost or forgotten about at the back of the class, here you won't. Our research aims to investigate how this information affects performance.

4. Have them learn from each other.

If you want your students to expand their thinking, you need to get them working with others. The massive benefit you have from an online class is that one of the reasons they have chosen this format is because they might be from a different part of the world. The diversity you are likely to have will be tremendous. Pick up any leadership book from the last 10 years, and you will likely find a chapter on the importance of diversity when building teams. The more homogeneous the group, the less likely you are to see creative and innovative results.

Use breakout rooms or divide the students into pre-designed groups and have them work on a problem. Do you planning beforehand and make sure you give activities the appropriate amount of time they require. Remember that 10 minutes will barely be long enough for them to find their way to each other, let alone begin to understand the task they have at hand.

Creating a culture for success

A fundamental aspect of ensuring that you are successful in your online journey is making sure you have the building blocks in place to deal with it.

Like all secondary performers, they will always be those out there willing to doubt whether or not it's the real thing. There will often be a need to prove time and time and time again, that this type of delivery is the real deal. And if those dissenting voices are too loud, you either need to quieten them down or get out of the room. A truly prosperous online learning environment can not achieve success unless they are given the license from up high to do so. You need to have at least one person, in a position of power, fighting your corner. If not, then taking the following measures becomes incredibly difficult.

If you have this support in place then start piloting. It's only by doing that you start learning. The innovation team at Microsoft have two key messages: 'Get your first s**tty draft done!' And, 'We either win or we lose learn'. This is the type of culture you want to foster: One where you get doing quickly and one where mistakes are encouraged rather than punished. As Thomas Edison said, 'I didn't fail. I just found 1000 ways that didn't work.'

At IE we have years and years of experience in online classes. And over those years, we have found out what works and what doesn't, where we are achieving success and where we need rapid improvement. We've made thousands of mistakes; some of which we would have had no idea existed, if we had never tried. Also, these mistakes are often nuances specific to our institution or our student needs, just like yours will be. Like a pilot or a rally driver, there is no substitute for time at the wheel, so if you're not doing already, then start doing soon!

Nevertheless, one thing you can put in place to help guard against any hiccups is a good support team. At IE, we have had a Help Online team for as long as we have had live classes and it is obviously a correlatory factor between our success over time in the world of online learning. The moving parts of online are not the same as face-to-face. Whilst we are constantly trying to move towards an environment where the technology no longer inhibits the student, it is an inevitability that along the way the technology will fail.

In the WOW room, one of our main goals was to create a software that meant that we wouldn't need to hire anyone extra to run it. So, we had the idea to create a portal that allows our Help Online team to provide quick and efficient support to both students and faculty who are having difficulties connecting or using the software correctly. Also, students have a very visible support button that allows them to connect with a real person immediately during their sessions.

An added benefit of the success we had creating the software was that it opened up the possibility of creating multiple versions. The physical space of the WOW Room no longer became the only competitive advantage. Due to its capability, we have created multiple versions, which allowed us to move beyond the studio and scale it to multiple classes at a time. Now, we have deployed it across all programs in the business school and are preparing to move to the rest of the schools for the forthcoming academic year.

Additionally, expect the best but prepare for the worst. Technical problems will always arise. You need to be ready with a plan B that ensures that the learning still takes place.

Imagine the scenario: You run an economics simulation with a group of Executive MBA students that is dependent on the students working in teams to decide whether or not to buy oil futures off the back of fictional news bulletins. The news bulletins come in short video clips and on this occasion the playback feature of the video has stopped working. You have a class full Executives - at blue chip companies from across the world - staring at you impatiently, starting to mutter and complain about this being a waste of both time and money.

What do you do?

- a) Cancel the simulation.
- b) Wait around and pray it starts working.
- c) Panic and call for help.
- d) Bang the computer and complain that things, 'were better in the good old days'.

Fortunately there's an Option E: You have prepared for this, albeit rare, scenario. So, you printed off the transcripts for the videos before hand. You calmly tell the class you'll be reading the news out rather than playing the videos, which are unfortunately not working right now. You finish the simulation and the learning stays in tact

The future of online

So where now for online learning? If keynote speakers are anything to go by, then new technology will disrupt the industry for ever, making brick-and-mortar institutions of the past an irrelevance. Then, there are those that are more sceptical: Pointing out that despite approaching the 10th anniversary of the MOOC and the 20th of online learning, it still only accounts for 1% of the industry - hardly a revolution.

The truth is, we don't know. But we do have two things to look out for:

- 1) The rise and increased understanding of Blockchain. As Claire Masson points out in her article How will blockchain change employment Blockchain works in a similar way to an accounting ledger, where new entries are added but nothing is ever erased. It relies on asymmetric cryptography which is a technical way of saying that you need two keys to open one safe. This could have a revolutionary impact on educational certification; something which has said to be a factor in people still choosing to take a 3-year long degree with a renowned University, rather than simply study with them online for free.
- 2) AI. Yes, you guessed it. Our new friend Artificial Intelligence. When its not taking over the world and ending our existence as we know it, it could also have some incredible impact on our understanding new concepts: Particularly research. There are already companies which are putting AI to task; asking it to read up to 10,000 pages of research papers per day. As it continues to read, it starts to make its own assumptions and conclusions. Imagine the advances we could make in any subject area, if we had a super computer able to read and process more information in a day than the average human could in a year, all the while never forgetting it.

There will always be sceptics to innovation and a diversion from the status quo, sticking to the safe and trusted performer. And there will be those who are fearful: Worried that they will be left behind or become redundant in a digital world. But, like any good understudy, at some point you have to step out of the shadows and into the limelight: No matter who gets hurt along the way.

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