

A silver laptop is open on a wooden desk. The laptop is positioned on the right side of the frame, with its screen tilted back. The keyboard is visible. In the foreground, a white sheet of paper is partially visible, slightly out of focus. The background is a dark, blurred wall.

# Online Learning and Higher Education:

## Key Questions and Considerations

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Across the academic year 2015/16, the **Interactive Design Institute** contributed a series of articles by Michael Stewart on the topic of online education and eLearning to **EPALE**, a multilingual open membership community funded by the European Commission.

This document brings together the series of articles submitted to the UK National Support Service for EPALE, giving an insight to online education and eLearning from a national perspective and for the distribution and discussion amongst researchers and academics within the profession.

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# Introduction

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The application of new and emerging digital technologies to the process of teaching and learning has provided educationalists with unprecedented opportunities and challenges in equal measure. On the one hand, online learning provides a vehicle which has the potential to enable the recruitment of an extraordinary number of students; cohorts can include those previously excluded for reasons of geographical remoteness and personal circumstance.

Perhaps for the first time, such students can be provided with access to a high quality educational experience. On the other hand, eLearning presents us with the problem of having to devise a robust educational and technical infrastructure that underpins what will come to be regarded as the most powerful tool to impact on education since the invention of the printing press.

## Chapter 1

# A Period of Transition

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However, those of us who are involved in maximising any benefits to be derived from these new technologies find ourselves in a period of transition. There is little doubt that in ten – perhaps even five – years' time, much of the uncertainty that surrounds the viability of the wholly online model will have been resolved.

The most effective technologies and pedagogies will be in place, countless waves of online students will have graduated successfully, and even the most conservative of our higher education institutions will have established an online presence to enhance their remaining attendance based provision.

Currently, we are on the cusp of this change, and in the transition from the attendance based to the online model, we must address some key questions.

### ***Will professional educators need to be experts in interaction design?***

The short answer is a tentative, "No..."

A Formula One driver does not need to be a skilled mechanic in order to participate in a race; but an understanding of the machinery that supports and enables performance will be advantageous. Similarly, a basic grasp of the capabilities of the technologies available to facilitate learner engagement is undoubtedly beneficial to the online practitioner, whereas a high level of technical expertise is not essential.

However, when designing a course for online delivery, a working knowledge of the digital tools available to enable that delivery will undoubtedly influence your pedagogical model; the more informed you are, the more likely you are to be able to produce materials in a format suitable for online delivery. This is an important consideration. One of the fundamental mistakes made by early adopters of

the online model was that they need only upload their existing materials to a website and call it "eLearning"; it wasn't, it isn't and it never will be.

To be effective, online course content has to be designed with the delivery vehicle, the end user, the assessment process, the retention of evidence and the supporting tutor in mind. This notwithstanding, the language used to communicate to, and with, the online student is critical. Much of the students' process while engaged in study will be directed through their interpretation of the course materials. Therefore, where instruction is provided in the form of text or infographic, it must be clear, concise and comprehensive. Where the vehicle of choice is video, the provider must be aware of the influence that posture, gesture, inflection, nuance and emphasis can have on the students' interpretation. Of course, given the global reach of the online model, idiomatic terminology and culture specific references are likely to be inappropriate or irrelevant and should thus be avoided.

In short, be aware of your medium. The more informed you are as an educational practitioner, the greater your awareness of the range of technologies available to you and their potential impact on the student experience; the greater the influence this will have on your delivery.

***But it seems that digital technology is advancing at an ever increasing rate; do I need to be up to speed with the latest thinking on eLearning philosophies?***

Probably.

But it's a mistake to think of online education as a discrete event on the timeline of the history of education. In truth, eLearning is only one strand in the evolution of educational practice; albeit currently the most visible element in an ever-changing digital environment. As digital technologies are adopted, adapted, incorporated, and developed, their applications become more sophisticated and more suited to educational purposes. It is logical to assume that examples of current good practice will inform ongoing practice.

Consequently, we can deduce that any form of eLearning provision will never be future proof. Changes will occur incrementally as emerging technologies require revised pedagogies, and progressive thinking stimulates further technological innovation; this is a self-perpetuating continuum.

While it is unlikely that the majority of us will ever be at the cutting edge of eLearning provision, it is heartening to see that the chronological distance between what is possible and the reality of what is actually happening within our education system is gradually being reduced.

The big issue is how and when we choose to engage with emerging technologies.



## Chapter 2

# To Begin at the Beginning

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### *How can I predict what is going to happen in online education in the mid to long term?*

The short answer is: you can't; not with any degree of accuracy.

Early adopters of the digital model found that investing their time, energy and money in new technologies was a risky business.

But this applies to each and every form of new resource we invest in; it has a shelf life. Somewhere there must lurk a storeroom stacked with turntables and Telex machines, a warehouse teeming with typewriters, telegraphs and analogue telephones and a cupboard chockfull of pagers, fax machines and Betamax videotapes.

Similarly, every institute of education in the world harbours a dark and dingy stockroom piled high with the detritus of outdated digital technologies, the evidence, not of imprudent expenditure, but of rapid progress. This throws up key considerations when attempting to evaluate the impact of digital technologies on education; the turnover and the timescale. Never in history have we seen a technology progress through so many transformative stages as quickly as we have with that of the modern computer.

*"Any sufficiently advanced technology is indistinguishable from magic".*

Arthur C. Clarke

Granted, early examples of these mechanical engines can be traced back to Babbage et al and we could engage in endless debate as to what we

should consider to be the first "modern computer", but such a discussion would merely be academic.

For convenience, if we consider that the first computers were made available to consumers in 1974-75, that Microsoft MS-DOS arrived in 1981 and Apple's Lisa was the first home computer with a GUI (graphical user interface), we can deduce that the modern computer is a mere 40 years old.

Long after our existing institutions of learning have crumbled to dust, future generations will marvel as archaeologists reveal artefacts from a bygone age; ancient relics bearing the legends Acorn, Amstrad, Atari and Apple.

Never in the field of higher education has so much been transformed so completely and so quickly by so few...

### *Surely we have a good idea of what we want to do and what we need to do it?*

Perhaps we are guilty of patting ourselves on the collective back because online provision has rapidly become integral to the profile of many of our major universities. Having proven itself as a creditable "new kid on the block" thanks to the perseverance of a few dedicated, farsighted individuals, eLearning has become acceptable. Of course, with any victory there are casualties; the inflexible LMS, the videophone, the CD-ROM and most of the physical media that dominated early digital provision have long since been relegated to the seemingly bottomless pit of discarded educational paraphernalia.

It's a matter of context.

Following on from this, am I not simply investing



time and effort in researching and applying technologies that will become redundant?

Undoubtedly, but this will always be the case when entering an arena that involves the application of new technologies; especially within the rapidly evolving branch of learning.

Over the last ten years, online education has become part of the ever-expanding digital world. Today's student considers digital technologies as an integral part of their everyday life and accesses entertainment, financial and retail services, social groups and education accordingly.

The contemporary student is well aware of the digital forms and functions available to them in this web-based environment and will actively source others which suit their requirements.

The provision of education is no exception.

## Chapter 3

# The Politics of Perception

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Practitioners who support the concept of eLearning have been keen to embrace the potential offered by new technologies and incorporate this into their provision. Having taken the decision to employ these technologies, professional educators have been duty-bound to integrate instances of innovation, whether technological or pedagogical, into their practice.

This is partly driven by their professionalism, but also by consumer awareness and the demands of a competitive marketplace. Potential students are well versed in the capabilities of state-of-the-art technologies and their availability across a range of other education providers, all of which are keen to acquire their business; and education is a business.

The raising of university fees in the UK in 2010 resulted in potential students considering whether universities were offering value for money and comparing one against the other; an exercise easily facilitated by an internet search.

When applying to a university, the variety of modes of study available and degree of flexibility offered are critical issues for some students, particularly for those who find attendance based education problematic. Given that one of the criteria to be met by a university in 2010 before it could raise its fees was widening student access, the provision of eLearning has become, for many, a logical step.

Consequently, it is prudent for most universities to offer an online delivery facility. However, by its very nature, the eLearning model does not necessitate physical attendance and therefore potential students can be located anywhere in the world. Inevitably, this results in competition between universities to attract these remote students, many of whom are probably tech savvy and therefore more likely to gravitate towards providers that offer a state-of-the-art eLearning experience; an

experience that matches their expectations.

Recent criticism of the online model has suggested that it creates a class of disadvantaged learners because not all students have access to laptops... While this is undoubtedly true – I'm sure that there must be some obscure subculture somewhere that doesn't have access to these seemingly ubiquitous devices – the online model was never intended to be for all students. Rather, the online model was for their non-standard learner counterparts; those unable to access traditional, attendance based provision. However, as eLearning moves towards becoming embraced within mainstream provision, this tends to be forgotten.

Nonetheless, this provides a good example of how detractors attempt to polarise the issues. Those of us involved in eLearning have no intention of suggesting that it should, must or will replace attendance based learning entirely. Digital technologies provide us with an additional vehicle for the provision of education; one that enables wider access, increased flexibility and greater capacity. The eLearning model has the potential to enhance our existing provision for those previously denied access for reasons of geographical remoteness, physical disability and restrictive personal circumstance.

In summary, while we recognise that, as professional educators, it is essential that we know our subject, knowing something about how it might be delivered online is equally important.



## Chapter 4

# New Readers Should Start Here

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### *There's a lot of technology out there, where do I start?*

Start by quantifying your knowledge of the technologies and the digital applications that sit within your comfort zone; begin by taking stock of where you are.

Accept that there will always be an emerging technology that will remain beyond your grasp in the short term; financially, intellectually and/or practically. Unless you inhabit the inner sanctum of a major IT company, there will always be someone who knows more than you.

Be pragmatic; it is extremely unlikely that these rapidly evolving technologies will remain static long enough for you to fully absorb the intricacies of their functionality, potential applications and potential impact at a pace that suits your current circumstances. There are IT experts out there whose sole purpose in life is to push the boundaries of the possible. As an educator, your job is to test drive their results, to provide the interface between technologist and learner.

Take heart, the interactive whiteboard, data projector and graphic pad used to be the stuff of fantasy. Today they are commonplace, part of the general infrastructure that supports the delivery of education; now they feature in our classrooms and lecture theatres like all too familiar wallpaper.

### *Just when I thought I understood the whole eLearning thing, along comes mobile learning: is the delivery of education via mobile devices, such as the smartphone and tablet, still a topic for debate?*

Yes and no. Although there are still those who denounce mobile learning or M-Learning – “learning

across multiple contexts, through social and content interactions, using personal electronic devices” – now it is generally accepted that this is not only a viable option, but a practical and logical application of technologies that has become integral to contemporary life.

An interesting phenomenon has emerged as a result. As technology continues to insinuate itself into people's lives, it has not only introduced new vehicles for communication, but has also started to shape the form that communication takes; speed is of the essence and that means brevity. Text speak is a good example of this; who needs grammar, sentence structure or even vowels to express themselves anymore? Television news delivered by a presenter is now accompanied by a continuous ticker tape of alternative narratives and newsflashes. Increasingly, people consume their information and entertainment in chunks of ever decreasing size and duration.

By extension, what has followed is a radical reconfiguration of educational content. This is becoming “bite-sized” and comprises of concise, shorter portions of information, frequently supported by videos of 50 seconds duration or less.

Where once the formal tutorial, two-hour lecture, structured essay and double period of mathematics on a Friday afternoon dominated our schools, colleges and universities, knowledge and skills are now delivered to the point of need in a fast-paced, micro-learning format.

It doesn't require a huge feat of imaginative calisthenics to arrive at the conclusion that the classroom and lecture theatre (if we consider them to be another part of the current infrastructure for the delivery of education) could be relegated to a position of secondary importance as we proceed along this path.

The point being that outmoded methodologies and their attendant technologies will inevitably be rendered obsolete; they will be superseded by new ideas, fresh thinking and the burgeoning innovation that will be generated as a result – and rightly so.

While most of us will find it difficult to be ahead of this particular curve, it is vital that we at least attempt to find out where the curve is currently positioned.

Adopting any other stance is tantamount to sticking your head in the sand.

***That sounds dangerously close to taking a position; how do I decide where I should stand in the online provision versus attendance based education debate?***

For some, it may be inconceivable at the moment, but in a few years' time this question will be irrelevant.

However, this will not be the result of some revolutionary educational uprising in which the last champions of attendance based learning are swept from the battlements of traditional universities by hordes of laptop wielding usurpers; despite the tendency amongst those engaged in the provision of education to polarise the "traditional versus digital" debate.

In time, we will achieve a balance in attitudes towards face-to-face delivery and models of eLearning, and the mode of distribution will become less important than the quality of the ongoing learning experience and, ultimately, the academic outcome it produces for the learner. Terms such as "eLearning", "M-Learning" and "online" will become redundant as forms of digital delivery are absorbed into what we all understand as *education*.

Recently, commentators have added fuel to the online versus attendance based provision fire by raising issues relating to the quality of materials and teaching, the level of pastoral support provided and the credibility of the qualification awarded upon completion of the online course. All too often, it has been assumed that attendance based provision is superior, per se, and that any alternative vehicle is by implication inherently inferior.

Of course, this is a generalisation which assumes that all learners are the same; that we are dealing with a homogenous group who share the same motivations, personal and professional circumstances, geographic location and patterns of study.

The bottom line is, online provision is fundamentally different from attendance based learning and we should embrace these differences. The key to ensuring the successful, effective deployment of either or both is to approach each form of provision from the point of view of the learner.

Our motivation as professional educators should not be what our institutions want to offer the learner, but how to provide what the learner wants from the institution.

***Does this mean I have to radically alter my view of how we deliver education?***

Possibly, but let me offer up the following extract for your consideration. According to the Swiss developmental psychologist Jean Piaget:

***"The principal goal of education [...] should be creating men and women who are capable of doing new things, not simply repeating what other generations have done; men and women who are creative, inventive and discoverers, who can be critical and verify, and not accept, everything they are offered."***

As quoted in Education for Democracy, Proceedings from the Cambridge School Conference on Progressive Education (1988)

For me, adopting the spirit of Piaget's view, as expressed in the above quotation, is central to how we approach the integration of the eLearning model in our higher education provision. There is no doubt that the historical function of education within our societies has changed; and so it will irrefutably continue to do so as the impact of the digital revolution continues to infiltrate and influence almost every aspect of our lives.

***But will it get my students a job?***

Education can no longer be considered as the precursor to employment. New technologies require new skills and techniques; they evolve to create new businesses, resulting in their older counterparts becoming redundant.

New technologies have also changed the way we work; no longer obliged to work to set hours in a central location, the modern employee can work flexibly from remote locations.

The provision of education as preparation for entry into the workforce can no longer be considered as a natural progression route. While our primary, secondary and tertiary education systems were based on a model that serviced first an agricultural and then an industrial economy, we are currently in the early stages of one that will be determined by the demands of an evolving digital age.

My concern is that our digital future is unfolding at a rate that is accelerating beyond our current education system's ability to keep up with the pace; we simply do not have the resources to supply the suitably qualified personnel to match the needs of this rapidly evolving world. Part of the problem created by this unprecedented advance is the inability to judge, or worse still, to even identify, the nature of the skills that will be required by future industries and employers.

Perhaps our best hope is to adopt Piaget's philosophy and prepare our students to "create new things". This would involve us developing an innovative strategy for education that emphasises the engendering and nurturing of transferable skills such as adaptability, flexibility and curiosity; skills which will ultimately foster further innovation.

## Chapter 5

# The Pace of Change

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### *Is it too late to change how we are approaching the implementation of eLearning strategies*

Those of us who work in education are in danger of becoming part of the biggest strategic mistake ever to blight our profession. This will be as a direct result of our complicity in the manner in which the implementation of new and emerging digital technologies is conducted.

Tragically, this calamity, and the resultant misfortune we and our students will experience, will not be caused by a lack of commitment, paucity of knowledge or malice aforethought. Nor will it be the result of any repressive bureaucratic, meritocratic or government policy.

This catastrophe will be rooted in our inability to grasp the magnitude of what is possible.

The French poet Guillaume Apollinaire famously said:

*“When Man wanted to make a machine that would walk he created the wheel, which does not resemble a leg”.*

Similarly, when Man wanted to make a machine that would calculate he devised the abacus, the slide rule and the logarithm; none of which resemble fingers.

And now, when we possess a machine that is capable of broadcasting an interactive educational experience to the world, why do we restrict ourselves to forms, practices and models that merely aim to replicate the physical infrastructure and pedagogical processes that are already widely

used in our classrooms and lecture theatres?

There exists a physical manifestation of this phenomenon; is it mere coincidence that the shape of our classrooms and lecture halls, digital file storage systems and database structures resembles that of the box? We must learn to literally think outside the box.

### *But are we not in danger of moving too quickly?*

I can accept that any meaningful innovation in any field is only ever made incrementally. I can also accept that, as we move forward, the familiar structures of the past are dragged along to provide an ever-present safety net to underpin a less tangible future; these usually provide a comforting and supportive frame of reference for the faint-hearted. However, my concern is that we are in danger of applying self-imposed strictures when considering eLearning as an alternative to attendance based learning.





AMERICA · AFRICA  
ASIA · AUSTRALASIA

## Chapter 6

# Out with the Old...

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*We've always used the principle of the timetable; how will we replace this?*

If we accept that education and training no longer require a physical infrastructure for their provision, why are we reluctant to move from a model that relies on the timetabling of subjects; allocating set time slots within specific days, weeks and semesters?

This implies that knowledge can be divided up into discrete chunks; that it is there to be consumed at predetermined times, in allocated amounts and at fixed intervals to produce the desired result within a fixed time frame.

Knowledge is not something that can be prescribed and thereafter taken regularly in a carefully measured dosage until the course of treatment has been completed.

If we are prepared to move away from our tendency towards replicating data storage systems that resemble the folders, paper based files and bookshelves of our physical libraries and resource centres, we can apply a similar attitude to how we approach the packaging of the teaching materials we use in our lessons and lectures.

Knowledge need not and should not comprise of artificially separated subject disciplines. The internet provides us with the means to explore the interconnectivity of knowledge and to adopt a more contextual approach to learning.

*So, how do we create a version of the lecture theatre online?*

This is the question that is at the core of the "synchronous vs asynchronous" debate and reflects the degree of misunderstanding that has blighted the implementation of eLearning strategies from the outset.

Let me begin my response by asking two questions; firstly, why are we content to merely dip our toes into the waters of what is possible with new technologies by using them as part of traditional, attendance based models?

The most striking example of this attitude is the belief that synchronous interaction is not only desirable, but essential to any educational experience. Secondly, is it fear of the unknown or simply the lack of imagination that leads to some educators seeking to dilute the purely online model by reducing it to a component within a blended learning programme; usually by amalgamating it with attendance based seminars and tutorials?

Realistically, online education does not need to seek to emulate the physical classroom or traditional lecture theatre to provide the student with a fulfilling learning experience. It does not need to replicate real-time interaction with lecturers, instructors or fellow students. The assumption that the eLearning model must, through conscious action or simply by default, replicate that of its more traditional, attendance based counterpart is based upon the erroneous belief that, in order to be effective, learning must take place within an environment that facilitates face-to-face, synchronous interaction.

Furthermore, such lazy thinking also assumes that attendance based and online models are mutually exclusive and, by implication, that each is engaged in some sort of pedagogical conflict with the other.

Once we accept, wholeheartedly, that eLearning can and does provide a viable alternative to face-to-face, attendance based learning, and that its practice, pedagogies and methodologies will and do provide access to those who choose to access an online educational experience that suits their particular circumstances, then we can develop a third option; a customised, blended learning model that provides a balanced, education package that is tailored to the needs of the individual student.

***I hate to be cynical, but isn't education all about recycling the same old stuff in a different form?***

Opposition to the validity of the eLearning model demonstrates a lack of understanding of the ways in which today's internet-savvy students choose to connect, communicate and conduct their lives; how they access recreation and education, shop, socialise and share information, and subscribe to news and entertainment channels. For example, the most commonly used forms of social media do not rely on real-time interaction to be effective. Despite this, Twitter, Facebook, YouTube, Tumblr, Instagram, WhatsApp and Snapchat remain the most popular vehicles for mass communication; although each is constantly vying for pole position as tastes and fashions continue to evolve. It is highly unlikely that a single platform will facilitate and satisfy all of the needs of all of these individuals all of the time.

Therefore, this leads us to the most obvious conclusion, which is that consumers will gravitate towards the medium that is most suited to their individual requirements, for a specific purpose at a particular time; consequently they will access a portfolio of platforms across the course of any given day.

This demonstrates a crucial point. As our world becomes increasingly digitised, more than ever before, the consumer is being empowered to dictate how they expect their individual requirements to be met.

It is the consumer who chooses the mode of delivery; the medium that best suits their needs, which provides the product they want and facilitates the experience they require.

The provision and consumption of education is no exception. Going forward, no matter what our well-established institutes of learning would like to happen – despite the assumptions of the more recent private providers and the aspirations of the multinational technology corporations notwithstanding – it is the student who will choose the pedagogical model that best matches their specific circumstances. What is not up for debate is the fact that students are seeking a comprehensive and fulfilling educational experience. However, the manner in which this is delivered and received will become entirely their own choosing.

***A war of presumption and procrastination...***

However, we are currently engaged in what amounts to a credibility battle; traditional, attendance based education versus eLearning. While I firmly believe that this is part of a propaganda war that will eventually enable us to broker an acceptable, productive peace – there will be casualties.

The territories being contested are the battle grounds over which we have wrangled since the provision of education was first mooted; assessment and accreditation.

## Chapter 7

# The Lines of Battle

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In an educational context, the term “assessment” refers to the methods that educators use to evaluate, measure, and record the academic readiness, learning progress, skill acquisition and/or educational needs of the student. Ultimately, these assessments are used to determine if the student has achieved the outcomes of a course of study and, if so, an award is granted. Where awards are accredited by an institute of education, the processes, services and operations of that institute have undergone a quality assurance process by a body external to the institute that determines whether or not the required standard has been achieved. When the institute achieves the appropriate benchmarks, “accredited status” is awarded.

The strategy is a constructive, affirmative one; the intention being to standardise accredited awards, to enable both the providing institution and the student to demonstrate what has been achieved.

### Tactics and strategy

However, a dark cloud of issues relating to assessment and accreditation continues to hover ominously over the eLearning provider. The assumption being that the quality of the online course materials, of tutor input, robustness of assessment procedures and value of award is of a lesser standard than its attendance based counterpart.

Unfortunately, in the no man’s land of our current situation, the playing surface is far from even and the strategy being employed by detractors of eLearning is punitive rather than positive. For example, regarding the issue of assessment in online delivery, the tendency has been to look for potential areas of weakness.

Online learning attracts criticism because it is assumed that the processes and procedures involved are, due to the nature of online learning, devoid of direct human interaction and, as a consequence, open to abusive practices and therefore fundamentally flawed. The conclusion being that these perceived inadequacies enable those who wish to cheat, to do so.

The damning question here (usually produced with the flourish of finality) is:

*“Can we absolutely guarantee that the work submitted by the online student is his or her own?”*

The answer is, of course:

*“We cannot... no more than we can validate that of an attendance based student”.*

### Bring on the cavalry

However, detractors of the online model disregard this and, by extension, imply that any qualification achieved by an online student is potentially debased, because there is greater opportunity to submit work fraudulently.

In reality, any issues relating to the rigour of assessment procedures employed in eLearning can be addressed effectively in the design of the online course and by the nature of the instruments used for assessment. Regular, consistent communication with the student enables the tutor to establish a rapport and form a personal relationship with the student; by identifying their study patterns, judging

the intensity of their engagement and measuring the consistency of the level of achievement. A mixture of diagnostic, continuous and formative assessment procedures set throughout the programme of study underpins the student/tutor relationship and enables the tutor to track each student's progress incrementally.

Of course, we should not assume that the problems in assessing students' work are particular to eLearning or that such actions apply solely to the online model; attendance based provision is open to the same forms of abuse.

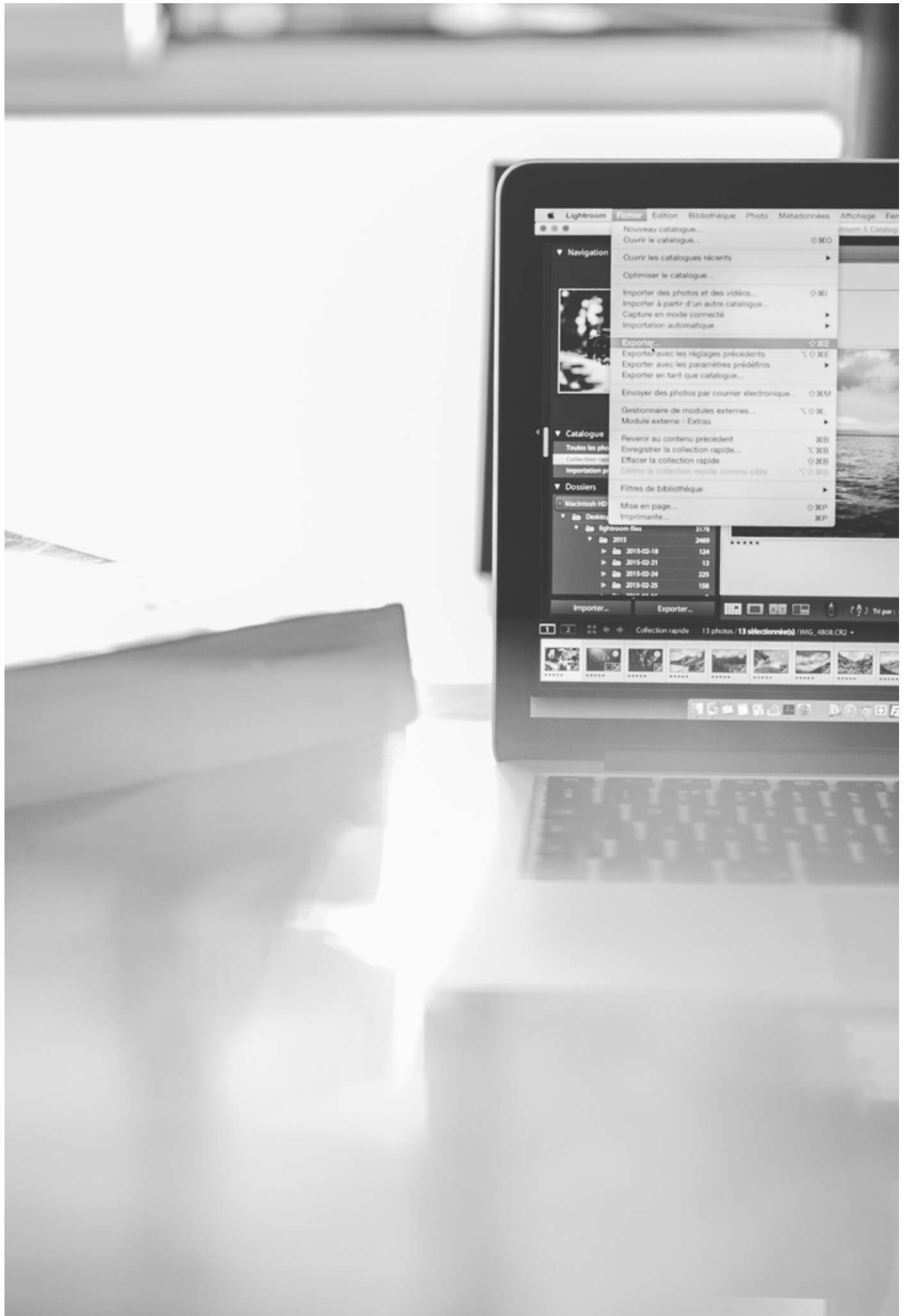
In reality, all accredited higher education courses within the UK are subject to the same rigorous quality assurance procedures; regardless of the mode of delivery. Therefore, if there is any dubiety regarding the quality of any accredited course, it is not only the nature of its provision, but also the appropriateness of the procedures employed to gauge its validity that should be, and invariable are, rigorously scrutinised.

## A fragile peace

Today, we have almost universal access to what is arguably the most powerful educational tool ever invented; the internet. This is a mighty engine capable of enabling radical global change; not only in how we live generally, but more specifically in how we widen access to education, knowledge and the acquisition of skills by enabling entry for those previously excluded.

Our mistake in the implementation of eLearning models will be in adopting an approach that is too tentative. The result being that we are continuing to risk squandering a golden opportunity by allowing our judgement to be influenced by our reluctance to relinquish models of delivery that are firmly rooted in the last century.





## Chapter 8

# One Size Does Not Fit All

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*“Comparisons are odious.”*

John Fortescue

To recap; there is little doubt that one of the main issues that has dogged the pro-online learning lobby is the reluctance of sceptics to regard eLearning as anything other than an attempt to replicate the key components of its attendance based counterpart.

This attitude is based on some key assumptions, the most pertinent being that the face-to-face, institution based model represents the most effective form of teaching model in higher education. This may well be the case; for some people, for some subject disciplines, for some of the time.

However, this view does not give due consideration to the evolution of the student body.

The profile of the contemporary student differs from that of 20 years ago. Today's learner is generally better informed, more aware of alternative modes of delivery, and more inclined to feel empowered to make choices that suit their chosen lifestyle, external commitments and learning needs. Rather than forming a homogenous group, the contemporary student body is fragmented; the demographic is more complex and incorporates a variety of diverse factions, each with a particular set of circumstances, motivations and requirements.

*“No one is better at not being America than Britain”*

Jon Stewart

In America, for example, recent research suggests that less than 16 percent of college students can be categorised in what was formerly considered to be the traditional mould: between 18 and 22 years old, financially dependent on parents, studying full-time and living on-campus.

Furthermore, the National Center for Education Statistics defines non-traditional students as matching at least one of the following seven criteria:

- Delayed enrolment into post-secondary education
- Attending college part-time
- Working full-time
- Financially independent for financial aid purposes
- Has dependants other than a spouse
- Is a single parent
- Does not have a high school diploma

This situation is paralleled in the UK where non-traditional and mature students, typically defined as aged over 23 or 25 years at enrolment, are actively seeking providers who offer a range of more flexible study options across their modes of delivery. This at a time when attendance based higher education institutions are under pressure to widen student access and increase revenue. Given that any increase in the student population would be directly proportionate to an escalation of the physical and human resources that would be required to support



it, substantial growth would present a number of problems for the majority of our campus based higher education providers; not least of which would be the initial financial outlay required to provide the associated infrastructure.

The solution would appear to be found in the adoption of alternative modes of delivery that incorporate one or more of the following components:

- Online or blended learning models which allow the student to attend the institution on a part-time basis
- Provision which supports the continuous delivery of programmes, particularly across the traditional summer break, which reduces the length of time required to achieve certification
- Flexible delivery models which enable institutions to deliver to an increasing student body from within their existing physical infrastructure
- Flexible delivery models which enable institutions to engage staff, as and when required, who have the capacity to operate remotely while delivering their courses online

Incorporating study modes which enable more flexible provision, such as online and blended learning, can enable an institution to achieve substantial growth in terms of its student population without incurring the cost of increasing the size of the existing campus or full-time workforce.

*“...if you judge a fish by its ability to climb a tree, it will live its whole life believing it is stupid”*

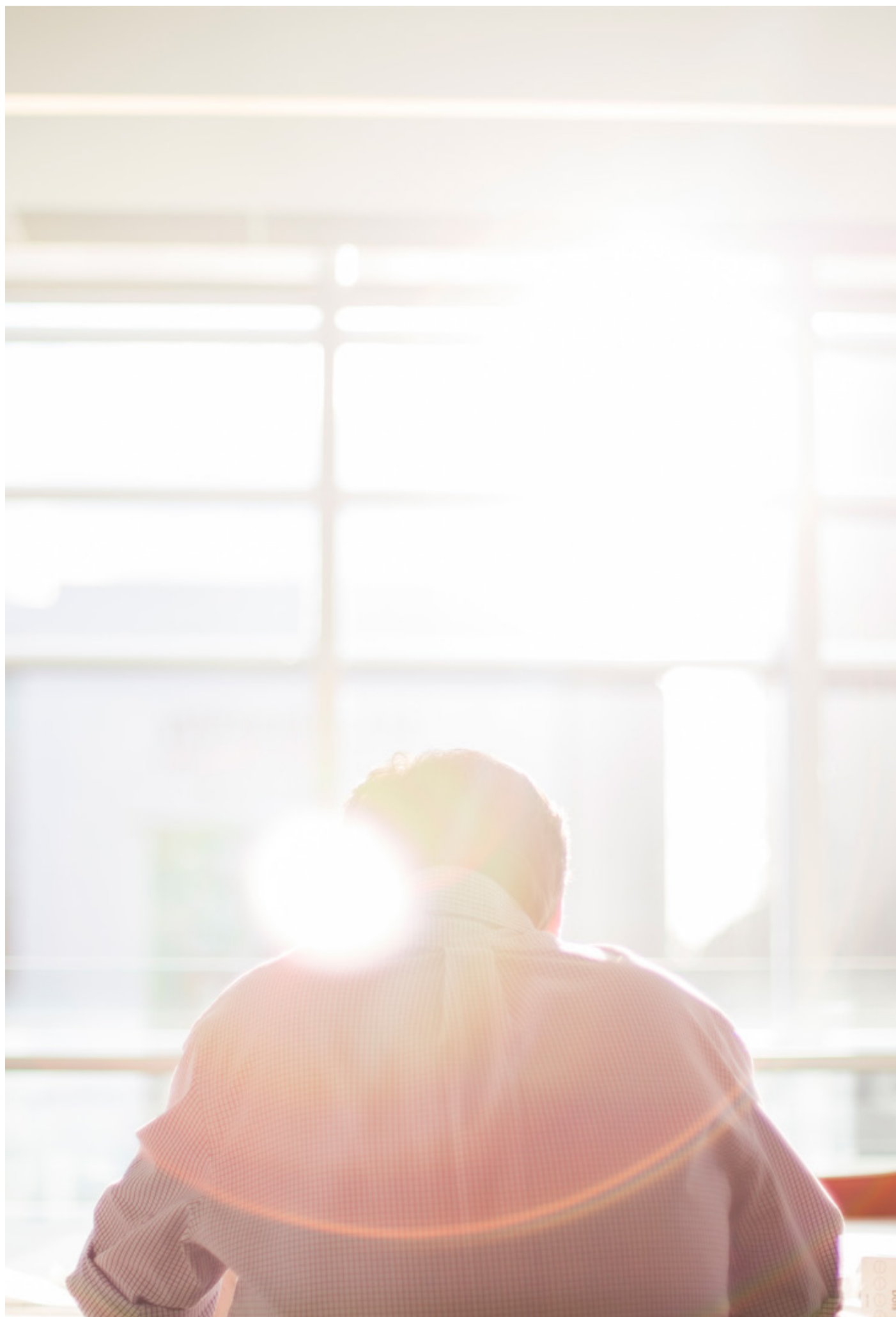
Albert Einstein

Yet, there seems to be a reluctance to fully engage with the potential that online education provides, with detractors pointing to attendance based learning as offering the one and only benchmark for the provision of higher education.

However, if you are an advocate of a purely online teaching/learning model, it is a mistake to enter into any debate in which attendance based provision is held up as the paragon of pedagogical virtue. Not because one model is superior to the other, but because each has the capacity to be inherently different from the other; capable of performing separate functions while serving different demographics, despite sharing the same goal.

And this is a crucial point; if the intended outcome remains the same and we apply the same rigour to the development of the course accreditation, structure, content, delivery and assessment, does the medium through which the teaching and learning process is facilitated continue to be an issue?

Perhaps, but more importantly; perhaps not.



## Chapter 9

# New Worlds to Conquer

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The desire of educationalists to construct simulated versions of the real world has resulted in the creation of complex, immersive environments that are heralded as being at the forefront of eLearning methodologies.

### The games people play

Gamification is a prime example of this trend and there are several reasons as to why.

For the first time, we are experiencing an education system that is being driven by the demands of the customer; or at least one that is starting to acknowledge that the market has changed. The prudent provider is tailoring their provision to meet the expectations of their clients. While this is evidenced in the growing demand for increasingly high-tech, effective online learning models by learners and institutions alike, this can result in users experiencing a mismatch between their expectations and the institution's ability to deliver.

### An uneasy truce

The contemporary learner has largely grown up with digital technologies, which have been assimilated naturally into almost every aspect of their lives; modern learners have familiarised themselves with the technology and then applied it accordingly. Conversely, most traditional institutions have viewed education and emerging digital technologies as discrete elements at best, strange bedfellows at worse, and now find themselves in the position of seeking to apply new technologies to long established modes of learning and customary teaching and learning materials. Unfortunately, as the synergy between the component parts has not evolved naturally or developed evenly, there is the danger that institutions opt for state-of-the-art technologies to deliver traditional pedagogies;

causing an uncomfortable dissonance between the two. This is exacerbated by customer expectation. The modern learner is familiar with current technological trends and is unlikely to be satisfied with anything that does not match – in terms of its technological power and sensory impact – that which he or she has access to at home.

### Lessons to be learned

The question is, should our education providers be expected to provide a user experience that is on a par with that which can be found in the commercial world? In short, should educationalists aim towards providing an online experience to rival Clash of Clans or, perhaps more realistically, follow the example of how Minecraft has been assimilated into lower school provision?

Either way, how is this to be achieved? Can we expect a new breed of institutionally funded educational technologists to develop eLearning products that employ cutting edge technologies, or is there an alternative?

Referring back to Minecraft, we have a universally popular game that involves the user in the creation of a customised world that they literally build block by block. The graphics are simple, the tasks are repetitive and there is no discernible storyline, yet teachers of younger students have been informally integrating it into classroom work for several years – with the game’s owners, Microsoft, encouraging them to do so. The statistics for Minecraft are impressive:

- 100 million registered users
- Played in 238 countries
- Five billion hours of Minecraft-related content viewed on YouTube by 160 million viewers

Recently, Microsoft bought MinecraftEdu, the education-oriented iteration of the game; a version created by teachers specifically for classroom use, a version which is currently being played in over 40 countries worldwide.

In this instance, we have an example of teachers who, realising the value of an existing platform that already enjoys massive appeal and encourages engagement, have adapted it for their own, educational, purposes. This is a model that those of us working in higher education should consider seriously; the technology is simple, engagement and operation are largely intuitive and it is effective.

## Form and function

The concern here is that the vehicle for delivery becomes more important than the content it carries; a particularly worrying notion within the field of online education. Consumers can be seduced by the style of the vehicle; attracted by the form rather than the function it supports. But this issue is not solely concerned with the proposed replacement of the lecture theatre and classroom with the razzmatazz of what may amount to something approaching an academic amusement arcade.

I agree that we should provide our learners with an immersive learning experience where it is appropriate. My concern is that total immersion could remove the element of distance, which is an essential part of the learning process. Distance enables the learner to consider, assimilate and reflect on the educational experience.

## Chapter 10

# Engagement and Response

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There is a balance required in the degree to which the learner engages with learning materials; between the intensity of total immersion and the superficiality of the automatic, instinctive or conditioned response. It is vital that we, as educators, achieve clarity of purpose; what are we aiming to achieve, how are we proposing to achieve it and why are we opting for a particular form of provision?

What kind of response do we expect from the learner? Beyond that which we state as the assessable aims, surely we are aiming to encourage reflection, integration and application?

### Keeping your distance

Reaction without reflection is training; in other words, a Pavlovian response. Education suggests a process that involves imparting and assimilating skills and techniques that have application beyond the immediate learning experience; the learner understands that these can be applied in circumstances that are external to the environment in which they are acquired.

Depending on the circumstances involved, it may be preferable to pursue the training delivery method. Examples could include memorising instructions or directives, reacting appropriately to an alarm, rapidly executing an instinctive response or behaving correctly when confronted with a potentially threatening situation.

However, if the aim is to provide an educational experience, it is surely preferable that participants within any course of study engage with the materials as part of a cognitive process.

The application of cutting edge technologies in education will only be effective when it is used to provide or enhance an educational experience that

is part of a pedagogy based on robust educational principles.

Anything else and we're in danger of being in the aforementioned amusement arcade.

In the following chapter, we'll discuss the fundamentals of effective online provision by considering these questions and exploring how 20th century thinking can inform 21st century delivery:

- Establishing the learning objectives; what do I want to teach?
- Preparing the learning materials; with what will I supply my students?
- Sourcing the most appropriate means of providing the learning experience; how will I deliver these?
- Deciding what I want the students to learn; how will I assess any outcomes?

### New kid on the block

It is too easy to fall into the trap of regarding online provision as the enfant terrible of the educational world; it is not simply the heir to traditional modes of delivery.

Consequently, it is a mistake to regard eLearning merely as a potential replacement for the face-to-face experience of attendance based delivery. Over time, those who favour online provision have established its position as a viable alternative to more traditional forms of delivery. However, online learning is most effective when it is applied in circumstances that suit its form of delivery; for example, where attendance is restricted due to reasons of geography, capacity, mobility, flexibility

and/or family and work commitments. ELearning empowers the student, providing the online learner with a greater degree of choice and control. However, it must be said that it is not the easier option – not for the student, nor the tutor, nor the providing institution

The mode of delivery should not be confused with the quality of the content; no matter how technologically impressive the learning platform might be, it will not compensate for poor course materials

Any programme of study that is provided via an eLearning model must adhere to robust educational principles in order to deliver a high quality educational experience to the student

Consequently, when considering what might form the foundation of any competent, 21st century eLearning provision, it is worth revisiting a few of the models that have informed those of the 20th century.

## Chapter 11

# Tried, Tested and Trusted

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The first that we should explore is 'The Taxonomy of Educational Objectives'. Published in 1956, following a series of conferences between 1949 and 1953, the taxonomy was compiled by a committee of educators and edited by American educational psychologist, Benjamin Bloom, who also chaired the meetings.

Named thereafter as 'Bloom's Taxonomy', the publication presents educators with three hierarchically ranked lists – namely "cognitive", "affective" and "sensory" – which can be used to classify learning objectives according to their level of complexity and mastery.

However, it is primarily the cognitive domain list that has been adopted by mainstream educationalists, and this informs much of the thinking behind the structure that underpins traditional learning objectives, assessment formats and learning activities. Detractors have suggested that Bloom's Taxonomy is better suited to those who favour the teaching of higher order skills such as analysis, creation, synthesis and evaluation, with content merely providing the vehicle for their delivery.

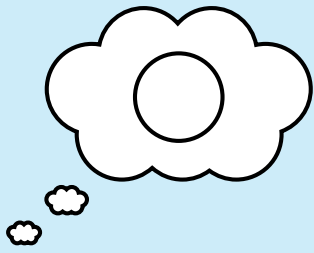
Nevertheless, there is no reason why the same principles suggested by Bloom for the planning of face-to-face provision should not be applied in an eLearning environment. The taxonomy can also be used as a teaching tool to maintain an appropriate balance between evaluative exercises and assessments, assignments and projects, text based activities and alternatives in order to sustain student engagement on all levels.

## Bloom's Taxonomy

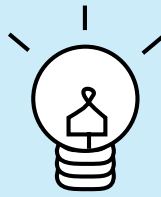
When Bloom's committee proposed their system of classification for learning objectives, it did so by ranking them from lowest to highest. This ranking was in line with the complexity of the cognitive processes required from the learner, as follows:

- **Knowledge**  
Learners must be able to remember the information presented to them
- **Comprehension**  
Learners must be able to understand the information presented to them
- **Application**  
Learners must be able to use the information they have learned within the same or different contexts
- **Analysis**  
Learners must be able to analyse the information they have assimilated, by identifying its different components
- **Synthesis**  
Learners must be able to create something new using different elements of the information they have assimilated
- **Evaluation**  
Learners must be able to present opinions, justify decisions, and make judgements about the information presented, based on their previously acquired knowledge

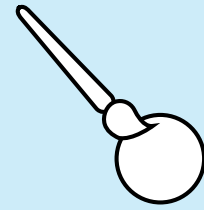




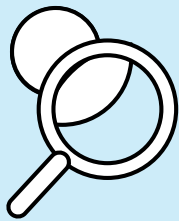
Knowledge



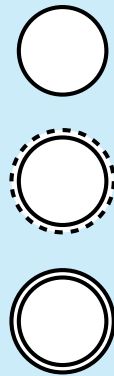
Comprehension



Application



Analysis



Synthesis



Evaluation

## Importance and relevance

As we move ever faster towards the wholehearted adoption of the online model, it is easy to reject the well-established wisdom of the past in favour of exciting, but as yet not fully formed, types of provision.

And we can use Bloom's Taxonomy to exemplify this.

If educators become too involved in the race to produce vehicles for the delivery of online learning that are more stimulating, more visually complex and more immersive, there is a real risk that the fundamentals, as suggested by Bloom, will be forgotten or ignored. We could see programmes that require involvement at a lower level, such as Level 1, being regarded as having a lesser status than those that seek to engage the student in analysis and synthesis, as in Levels 4 and 5.

If the presentation and assimilation of basic information ceases to be of interest to educators and designers in the online world, if it becomes too prosaic to merit their full attention, then we are at risk of forgetting what it is we do, why we do it and the requirements of our target audience.

For instance, if we consider the example of compliance training – such as that which involves the learner acquiring knowledge about the company or institution, its ethos, policies and procedures – the danger is that we relegate this to the educational equivalent of “reading the instructions” and pass responsibility for its completion to the learner.

This is a mistake on the part of the provider. Unless we provide the information and an appropriate assessment tool, and then demand evidence that this vital step has been accomplished, we cannot proceed on the assumption that this objective has been completed satisfactorily. The process of education is based on discipline, and the nature of online learning necessitates a higher degree of self-discipline from the student learner.

Experience tells us that the student will invariably be attracted to those elements of the learning process which have immediate appeal and promise to be the most interesting. These are seldom features of the basic information or instructional components of any course of study.

## Chapter 12

# Instinctive or Instructive?

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My concern is that gamification, if employed without due consideration for solid educational principles, would merely engage the part of the student's mind that is instinctive; the student reacts to a series of stimuli – often repeatedly until a level of competence is built up – without engaging cognitively, ever.

Equally, total immersion does not necessarily constitute a holistic educational experience; enabling the learner to engage in the moment is an important aspect, but equally significant is the process of assimilating the knowledge being imparted. Effective education enables the learner to acquire knowledge pre-experience, apply that knowledge appropriately during the experience, and reflect on the outcome post-experience.

In order to provide our students with an engaging and rewarding holistic educational experience, we must address their needs; we must present suitable learning materials at an appropriate level and provide robust, accurate assessment procedures.

These assessment procedures are in place not only to test the ability of the learner, but to test the quality of the learning materials and the rigour of the assessment instrument.

To facilitate the student experience, we must have or develop a profound understanding of the level of cognitive processes that are integral to their learning.

This should not involve the complete rejection of that which has gone before. Revisiting and re-evaluating the cognitive domain in Bloom's Taxonomy is a prime example of the value of considering – and then reapplying – traditional educational philosophies as an integral part of our revised teaching strategies.

In the next chapter, we will consider Gagné's "Nine Events of Instruction" and how these may be used to inform modes of online delivery.

### Bright and shiny new toys

The idea of online providers being tempted towards unnecessarily high-tech solutions is a concern, particularly where these are at the expense of the underlying pedagogy.

What is evident is that the starting point for the development of any course designed for online delivery must be the intention and capability to encourage students to engage with, absorb, retain and apply the information contained within the learning materials.

Having considered Bloom's Taxonomy and what it has to offer those who develop and deliver programmes of learning online, we now turn our attention to the work of another educational psychologist; Robert Gagné.

## Chapter 13

# A Rose by Any Other Name

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Robert Gagné was an innovative educational psychologist who pioneered the concept that the process of instruction should be considered and applied scientifically. Working across the mid-20th century, Gagné published his theories in his book, 'The Conditions of Learning' (1965), in which he suggested that, for effective learning to occur, specific conditions must be present to promote the absorption and retention of knowledge.

Gagné deconstructs his conditions of learning, categorising them under two main headings:

- Internal conditions: these consist of what the learner knows before commencement of the current process of learning; namely, prior knowledge
- External conditions: these refer to the stimuli to which the learner is exposed on commencement of the learning process; namely, the form and content of the information and instruction

Based on these internal and external cognitive factors, and how they contribute to the process of learning, Gagné proposed his "Nine Events of Instruction".

Gagné believed the most important elements within the teaching process to be:

- Presenting the knowledge or demonstrating the skill
- Providing practice with feedback
- Providing learner guidance

Further, he suggested that each of these elements should be designed to correspond to the level of the learning goal to be achieved by the learner, which would vary in terms of the level of skill required to complete them effectively and the degree of difficulty they present to the student.

This is crucial to designers of learning programmes in general, but especially valid to those of us who design eLearning courses. Gagné's model reinforces the need to establish clear learning outcomes and an appropriate learning hierarchy, which not only enables the student to achieve them, but also allows the teacher/lecturer to accurately gauge the success of student performance.

When designing a programme of study, or indeed any form of training course, the educator/trainer is obliged to conduct a task analysis before employing Gagné's model. This enables them to identify the skills required to perform the measurable activity that demonstrates whether or not the learning goal is achieved.

Essentially, in 'The Conditions of Learning', Gagné identifies the psychological conditions that enable learning; the mental process that occurs when learners are presented with a variety of stimuli. From this, he created a nine step information processing model, which corresponds to and tackles the conditions of learning; Gagné's "Nine Events of Instruction".

While this nine step model can no longer be considered to be at the cutting edge of educational philosophy, Gagné's "Nine Events of Instruction" provide us with a sound starting point and indication of an efficient way to approach the construction of an eLearning course of study.



## Proceed with caution

However, it's worth injecting a note of caution before you embark on the design of your eLearning course. Obviously, Gagné's model predates the influence of the internet by some time and he could not have been aware of the major effect this would have on the profile of the learner. With reference to Gagné's model in particular – his "Conditions of Learning" and the internal cognitive factors that influence student behaviour – we can no longer assume that our geographically diverse students share a common cultural, intellectual or social background.

While Gagné was developing his ideas, the extent to which the individual student life experience varied was considerably less with attendance based learning than it is with the contemporary online model. Campus based students in the mid-1960s were more likely to be of a similar age, come from within a limited geographical catchment area and share some degree of cultural and/or social background.

Consequently, when we are preparing to deliver course materials via eLearning, we should remember that, while we have the potential to recruit an assorted age group of multinational and multicultural learners who will benefit from this diversity, we must also aim to determine if and how much of a common frame of reference does exist.

Typically, the eLearning experience caters to a diverse, global audience and it is vital that designers of online courses take this into account when planning their programmes.

## What are the "Nine Events of Instruction"?

The "Nine Events of Instruction", as defined by Gagné, demonstrate his approach to structuring the learning process sequentially; each individual stage complementing that which precedes and follows. Furthermore, he suggests that by engaging with each level chronologically, the lecturer/teacher can enable understanding, retention and extended application of the knowledge and skills being taught.

Gagné's "Nine Events" require the lecturer/teacher/trainer to:

- 1. Gain attention**
- 2. Inform learners of objectives**
- 3. Stimulate recall of prior learning**
- 4. Present the content**
- 5. Provide "learning guidance"**
- 6. Elicit performance (encourage practice)**
- 7. Provide feedback**
- 8. Assess performance**
- 9. Enhance retention and encourage transference**

That's the theory. Now, we will consider how Gagné's "Nine Events" can be applied to the design of online courses.

## 1 Gaining the attention of the learner

As the designer of an online course of study, you must first accept that you are no longer in a classroom or lecture theatre and that your hard-earned teaching persona has little relevance in this new environment. It is perhaps impossible to match the impact of a commanding, physical presence in a teaching situation, so we must identify equally dynamic online alternatives.

With eLearning, much of the teaching process will be embedded in the course materials. The quality of these materials will determine the success of the teaching process and the manner in which they are presented will determine their impact on the student, and the student's level of engagement. Consequently, to engage the student's attention, we should provide an inspiring presentation (either text or video), enticing problem or stimulating situation that demonstrates what the student will have achieved when they complete the task and fulfil the learning objective.

The more your initial presentation links to the student's prior experience (Gagné's "internal conditions") the better, and you should consider the inclusion of cultural and societal exemplars to establish context and a frame of reference.

Begin by describing the goal and presenting the learner with a challenge; this will help to motivate the student.

## 2 Informing the learner about the objectives of the course

It is essential that the learner understands why they are undertaking each activity at every stage of their course and what will be required of them to achieve the overall goal.

Students should be presented with the:

- aim of the activity and/or course; namely, what will be achieved
- objectives for each activity and/or course; how they will be achieved
- approximate duration of each activity and/or course; how long it should take
- level of participation required; how much they are expected to engage with their course materials/course tutor
- potential applications of the techniques/ skills/knowledge gained in a real-life scenario; how this will be useful

## 3 Stimulate recall of prior learning

In short, Level 3 entails the lecturer/teacher encouraging the learner to ascertain what they already know and how this will be applicable to their current situation.

Having established what will be required from the learner, in terms of the skills and/or knowledge they will be applying to a set assessment activity, they should be invited to recall, reassess and then apply any previous knowledge to the upcoming task.

This is also an opportunity for the course designer to connect the subject matter in the teaching materials to the student's existing knowledge.



## 4 Present the content

Online content should be clearly and concisely written, with a single, achievable, defined goal. All eLearning materials, including activities, exercises and demonstrations, should embrace and enhance the student learning experience and be directed towards the successful completion of the objectives and achievement of the overall aim.

## 5 Provide “learning guidance”

Although it was stated in the description of Level 1 that the eLearning materials should perform most of the teaching, there is no doubt that the student will benefit from additional tutor support within the online environment. The knowledge, advice, guidance and support that an experienced tutor is able to provide will encourage any student who is experiencing difficulties and stimulate the more able learner.

## 6 Elicit performance (encourage practice)

No matter which mode of delivery you choose, one of the key factors in encouraging engagement is repetition. As the designer of an eLearning experience, you should aim to include a variety of opportunities for the learner to apply the skills and/or knowledge they have acquired in the form of activities, exercises and simulations.

## 7 Provide feedback

The provision of feedback is essential for the eLearning student. Personal, specific and detailed constructive comments and appraisal will help the student to judge their work, identify and address any areas of weakness and improve their performance. Equally important is feeding forward. This should be provided by the tutor teaching the material; how the student might approach their next piece of work or assessment, given their performance during the last exercise.

## 8 Assess performance

As a designer of eLearning courses, you should aim to incorporate instruments of assessment that not only enable you to assess your students’ work accurately, but that also allow you to gauge the effectiveness of your learning content. When appraising your course, if it is discovered that the majority of students have experienced difficulties with a particular model or are submitting insufficient or inappropriate material for a specific learning outcome, you may need to evaluate its form or content.

Performing a diagnostic test on the effectiveness of your own instruments of assessment will enable you to identify any shortcomings between the knowledge the students are demonstrating and that which is required to achieve the learning outcome(s).

## 9 Enhance retention and encourage transference

The extent to which any piece of knowledge has been absorbed or any skill has been acquired can only be ascertained by the teacher/lecturer when it is applied by the learner in a fresh situation. Consequently, it is important for the designer of the eLearning course to provide several examples of real-life scenarios to the online student while they are actively engaged in the virtual learning environment. This can be achieved through the provision of exercises, which employ everything from basic, simulated situations through to high-tech, multimedia gamification scenarios.

To conclude, no single philosophy can claim to be the blueprint for the successful delivery of face-to-face education and the same holds true for the provision of eLearning. However, there is no doubt that the principles that underlie many effective attendance based models can provide some degree of guidance for those preparing their own online courses.

## Chapter 14

# Uneasy Bedfellows

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Online provision has the potential to reach a wider target audience than its attendance based counterpart, but the strategy that underpins both is essentially the same; to engage, to inform and to enable. However, there is little doubt that tensions still exist between advocates of each model and we need to identify the source of these and work towards a resolution.

### Birth of the brand

*“Our wretched species is so made that those who walk on the well-trodden path always throw stones at those who are showing a new road.”*

Voltaire

Education and the mechanics of how it is delivered are strange and occasionally uneasy bedfellows. Additionally, the introduction of new technologies is challenging those of us who work in education to re-examine our assumptions about how we engage with our students, present our materials and deliver our courses.

The halcyon days of the sole orator, the peripatetic Aristotelian philosopher, broadcasting pearls of wisdom to an attentive throng have been replaced by a more convenient, more easily managed, more static format. Following examples set by institutions such as the church and the theatre, education has largely adopted a model that facilitates congregation. Education has embraced the classroom and lecture theatre, dedicated spaces housed in buildings which, over time, have assumed a single purpose; to demonstrate the gravitas and authority of what is happening within.

These buildings have become institutions which, in turn, have come to symbolise the brand.

And the brand has to be protected because it represents the institution; and its reputation.

### Why do we do it the way we do it?

*“Most of our assumptions have outlived their usefulness.”*

Marshall McLuhan

The methodology we retain within our face-to-face teaching spaces frequently references its own roots; it is an odd mixture of instruction, demonstration, declamation and performance, with hints of moral and ethical guidance thrown in; and it is provided by role models and representatives of the brand in the shape of teachers and lecturers.

Furthermore, akin to attending a theatrical performance or religious service, each instance of the face-to-face educational experience is unique; the combination of people present, the mode of delivery, the content and appearance of the materials, the pace, tone and even the mood of the teacher, lecturer or assembled multitude. All of these elements combine to create an individual experience; one that will never, nor can ever, be repeated in its entirety.

How much of what is disseminated during a lecture is retained at first hearing? Granted, notes may be taken, handouts provided, recordings made, but the true nature of what has happened cannot be captured accurately. Essentially, if the experience has any longevity at all, it lives on in the memories

of those present, to be regurgitated in an examination, applied in a work related capacity or passed on to another learner.

How often do we remember the inspirational teacher and yet cannot recall much of anything that was said, let alone learned?

And yet, we still cling on to the notion that synchronous, face-to-face delivery is the most effective form of educational provision; despite the fact that if a student mishears, misinterprets or, worse, inaccurately records any aspect of what is being taught, it cannot be retrieved with any degree of guaranteed accuracy.

Any student has the option to raise a hand during a lecture and ask for clarification... in a lecture theatre crowded with his or her peers. This requires a degree of self-confidence that many do not possess; and is a course of action to which a student can resort on only one or two occasions before it becomes disruptive.

*"A good education is a foundation for a better future".*

Elizabeth Warren

## Chapter 15

# We Are Gathered Here Today...

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The provision of education via a collective, congregational model is a wondrous, yet perilous soufflé. It is at its most effective when a huge diversity of elements comes together in perfect harmony. This is what we, as students and educationalists, remember when we recall those memorable moments; it reinforces our notion of the brand. However, we cannot allow this to unduly influence our perceptions of how we might progress and how we might include new technologies and new pedagogical models in our education systems.

There is no doubt that the face-to-face delivery of education can be an effective form of provision. However, we must recognise that it is flawed. It is limited in terms of the volume of students it can service; it requires an exponential increase in physical infrastructure to accommodate increased enrolments, and relies on the availability of appropriate staff at set times, days and semesters throughout the academic year; in short, attendance based provision is limited in terms of its scalability.

As a standalone model, or as part of a blended learning model, eLearning has the potential to enable institutions to achieve scale through increased reach and greater flexibility. We cannot and should not allow our desire to adhere to a familiar model to prevent us from engaging with one that is less familiar, especially when it is infinitely more exciting in its potential.

## Unbundling but not unravelling

Technology, no matter how rudimentary, has been an integral part of the education process ever since Man took to scratching illustrative marks on a wall and pointing emphatically with a stick.

Throughout the history of education, many technological aids have been introduced into the classroom and lecture theatre with the aim of facilitating the process of teaching and enhancing the experience of learning. In the main, these innovative measures enjoyed a degree of success and remained in the teaching arsenal for many years. Notable examples include the chalkboard from 1890, the filmstrip projector from the 1920s and the overhead projector from the 1960s. However, it was the introduction of educational broadcasting on television that revolutionised the provision of education; initially in the UK in 1969 with the advent of the Open University and then in America on PBS in 1970.

*"We become what we behold.  
We shape our tools and then  
our tools shape us".*

Marshall McLuhan

## The power of television

With the exception of educational television, none of the aforementioned devices enabled the teacher or lecturer to reach an audience beyond the confines of their immediate physical space. In the classroom and lecture theatre, those charged with educating the occupants could see their target audience, gauge their response and moderate their delivery accordingly.

Television and educational broadcasting brought a new dimension to the process of teaching and learning. Suddenly the consumer was essentially anonymous; the end user, an unknown quantity. In addition, by moving education out of the classroom and into the larger world, access was granted to a generation of learners who would otherwise have been denied the opportunity to engage with higher education; at least, that was the case in the UK.

As a provider of distance learning, the Open University not only changed the profile of the student body, but also the perceptions of education, forever. As a result, people in employment, retirees and those whose personal circumstances prevented attendance at university were given the opportunity to study part-time towards degree qualifications; a ground-breaking initiative.

However, founded under a Labour government and inherited by its Conservative successor, the newly-opened Open University was destined to be shut down – regarded as an expensive luxury – until a certain Margaret Thatcher, Secretary of State for Education, advised that this would result in a huge negative backlash from the electorate.

*“We simply could not defend the abrupt cessation of the university’s existence, without warning...we should have trouble out of all proportion to the money saved...quite apart from the political considerations, the unit cost per graduate produced in this new institution could well be substantially less than in the orthodox university system.”*

Margaret Thatcher minutes of  
Cabinet meeting, 30th July 1970

Thus, at a stroke, what we now refer to as “the unbundling of education” became a pivotal political, social and economic issue in the UK.





## Chapter 16

# Bursting the Bubble

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**“Reputation... oft got without merit, and lost without deserving.”**

Universities the world over are concerned about perceptions of their reputation. Everything from university rankings to reviews, appraisals and comments on social media can affect the way an individual institution is perceived by a potential applicant.

While the internet has opened up higher education to those who would otherwise have been unable to gain access, it has also subjected its provision to a level of public scrutiny never previously experienced.

This perhaps helps to explain why distance learning in general, and eLearning in particular, is perceived as a threat to the established order in traditional modes of education.

The equation seems to be; the greater the physical distance between the education provider and the recipient student, the greater the difficulty in maintaining uniformity of quality in the provision of courses and in preserving the same rigour in assessment procedures. This loss of direct control means that the risk to the reputation of the brand is perceived as being greater; students who have had limited in-person contact with their tutors, who have never physically attended the institution, can gain an accredited award that bears the university's name.

**“Strong reasons make strong actions...”**

Until now, universities have thrived on their ability to market their brand internationally. Transnational students travel to the institution of their choice attracted by those elements which constitute the brand; reputation, research profile, course choice and academic achievement, among others. Alternatively, in-country provision has the institution build or lease a campus based facility abroad to establish an international hub; a satellite of the main university which houses core staff and welcomes flying faculty on a regular basis. Both options are limited through dependence on the existing physical infrastructure and the availability of suitably qualified staff.

Neither option allows the institution to achieve significant growth without major expenditure; neither option is scalable.

**“Go wisely and slowly...”**

Institutions wishing to increase enrolments – particularly internationally – are on the horns of a dilemma; do they remain self-contained and protect the brand or risk adopting, what, for some, are unfamiliar methodologies, in order to expand their provision?

For some, it's an uncomfortable choice. The blended learning strategy has the potential to dilute the core elements in traditional forms of delivery – such as face-to-face teaching and synchronous communication – but the purely online model could render these obsolete.

However, it is naïve and futile to suggest that any university brand will prosper or suffer simply

because it does or does not adopt an alternative form of course delivery; the medium alone does not dictate the quality of the overall educational experience. There is another side to this debate and we should temper our expectations of new technologies. The key is to develop an infrastructure that will support all forms of provision equally; one that ensures consistency in tutor delivery and support, quality of course materials and rigour of assessment procedures across all modes of delivery provided by the institution.

Not only will this go some way towards protecting the brand, but it will offer students the opportunity to access the educational experience they choose to undertake.

In conclusion, we should consider these words of caution from one of the greatest pioneers of broadcast journalism:

*“Just because your voice reaches halfway around the world doesn’t mean you are wiser than when it reached only to the end of the bar.”*

Edward R. Murrow



## Chapter 17

# Does Education Need Congregation?

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### Props, artefacts, icons and visual aids

It does not require a great feat of intellectual gymnastics to spot the physical similarities between the traditional structures we use for the dissemination of entertainment, instruction and justice; the theatre, the church and the judiciary. Ancient Greek theatre, the medieval cathedral and every court of law is modelled on the principle of congregation, where people who share a similar purpose gather together in one place to receive the approved wisdom of an appointed individual or individuals.

This format extends to our seats of government; our parliament or its in-country equivalent, to our civic ceremonies and, more often than not, to our boardrooms and lecture theatres.

To emphasise the focus on, and thus accentuate the status of, the provider, each features some form of tiered or formally arranged seating and a raised dais or delineated stage.

It is no accident that some variation of these formal arrangements of provider and recipient can be found in the majority of the institutions that underpin the fabric of our societies. Each serves to subliminally endorse the authority of the other, as well as to reinforce both the concept of the practitioner as expert and the organisation as the hub through which institutionally approved knowledge and information is channelled.

Artefacts are used to identify the provider, to underline their status and, most importantly, to set them apart from the recipient; costumes and props for the actor, wigs and gowns for the lawyer, chalice, beads, scroll, figurine and robe for the cleric.

The artefacts of the academic have evolved over the years, from mortar board and pointer, to chalk and chinos, to interactive whiteboard and electronic text book. However, their purpose remains the same when used within a traditional setting.

*“Of course, some would say if you have a performing inclination, then you should become a lawyer. That’s a platform we use, or a priest. You know, anywhere you lecture and pontificate to people”.*

Rowan Atkinson

### Roles and rules

This traditional set-up is indicative of the roles, rules and lines of demarcation that have coloured the educational experience for the majority of learners throughout our history.

Each classroom, every lecture theatre was designed with the intention of establishing a monopoly on the attention of the learner. Students were taught individual subjects, each discipline being seen as discrete; the lines of demarcation being drawn up beforehand by the teacher or lecturer. The physical limitations of the teaching space were deliberately designed to thwart interdisciplinary collaboration; “Science is taught here, mathematics over there and English is down the corridor, third door on the left”.

*“Our Age of Anxiety is, in great part, the result of trying to do today’s job with yesterday’s tools and yesterday’s concepts”.*

Marshall McLuhan

Traditional methodologies lean towards the single form presentation (chalk and talk) and are likely to be the prerogative of a particular member of faculty. Frequently, the member of staff will be inextricably linked to the subject they teach – “Dr Jones *is* Medieval history” – and the major disadvantage of such a system is that it is unlikely that the student will benefit from any deliberate attempt to cross fertilise between departments.

## Bringing down barriers

The fundamental concept of the provision of education through eLearning challenges the notion that knowledge, information and the dissemination of both needs to be centralised; that artificial barriers must be erected around subject disciplines and their exponents.

*“... A few generations ago, people didn’t have a way to share information and express their opinions efficiently to a lot of people. But now they do. Right now, with social networks and other tools on the Internet, all of these 500 million people have a way to say what they’re thinking and have their voice be heard”.*

Mark Zuckerberg

## Chapter 18

# Spontaneity vs. Tradition

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*"We know what we are but not what we may be."*

William Shakespeare: Hamlet, Act four scene 5

The internet enables students to roam at will; click on links, wander off on tangents, spontaneously pursue their natural curiosity, venture beyond the artificial limits imposed by the format of the traditional lecture. This is the lesson as a springboard, a starting point for discovery as opposed to an end in itself.

Surely this is the aim of all education, to instil a sense of active curiosity in our students and then enable them to indulge their inquisitiveness and thus fulfil their true potential.

None of this represents new thinking; this is not a ground-breaking concept.

*"Most tasks and tests will demand recall of isolated pieces of information, and I (the student) will not have to show how concepts and ideas are related or how facts illustrate underlying principles."*

The Hidden Curriculum, Barrell (1991)

However, it is not enough to pay lip service to new technologies, introducing them into traditional pedagogies without examining the underlying infrastructure that will support their application.

Are we fast approaching a time when the ongoing rapid development of technology will outstrip the ability of traditional education institutions

to keep up with the pace? New technologies will require new skills and the rate at which these evolve will require us to adopt a fluid, flexible education system; a system capable of educating a population to embrace, apply, service and develop the expertise that these new industries will generate.

This will require us to produce a generation of students who are active learners, not passive consumers.

## The silver bullet

A lot, arguably too much, is being made of potential eLearning models having to break down the barriers that exist within traditional education; barriers to entry as a result of, for instance, geographical location, physical and/or socioeconomic mobility, and personal and family commitments.

However, nothing of any real or lasting value can be introduced into an existing model without creating a ripple effect. Equally, the full extent of the likely impact of any fundamental change cannot be anticipated with any degree of accuracy; if we accept that change is inevitable, we must prepare for all eventualities... or at least prepare to be flexible in our approach.

However, it is in the nature of human beings to regard innovation with suspicion and, in the case of our education system, the speed at which we have accepted and then integrated the potential benefits that these new, digital technologies provide may prove to be our biggest mistake.

*"The vast majority of human beings dislike and even actually dread all notions with which they are not familiar... Hence it comes about that at their first appearance innovators have generally been persecuted and always derided as fools and madmen."*

Aldous Huxley

In this case, let us hope not.



## Chapter 19

# Progress?

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As educators, we must question our practice; consider and establish the fundamentals of what we are aiming to achieve before we can embrace and implement new technologies and progress in any meaningful way.

Unfortunately, reactions to the introduction of eLearning into higher education have been mixed and a polarity exists between the "pro" and "anti" factions within the sector. This throws up some key questions that must be addressed before these can be reconciled:

- Why does one faction think it necessary to devise convoluted and restrictive mechanisms in order to give the impression that we are bringing students and lecturers together in one place?
- Why must all forms of communication within the teaching/learning interaction be synchronous to be effective; when was it decided that it is more effective for teaching to be conducted in real time?
- And perhaps most crucially, is our present education system so perfect that it cannot be improved or is it merely so insecure that it cannot bear criticism?

However, we must not fall into the trap of believing that simply because a form of technology exists, it must be applied. Any technological advance will only have positive value if it is employed as an integral part of a pedagogy that is subject to ongoing review and revision. Additionally, the more radical or far-reaching the technological advance, the greater the need for a radical revision of that pedagogy; tinkering around the edges or reordering a few of the parts to incorporate the most attractive

elements is only a short-term fix.

However, even if we address all of these issues and then incorporate them into an existing educational model, the result does not necessarily constitute what we may wish to call "online education".

Uploading an unsupported stack of text based materials to a website is not "online education" any more than posting a textbook to a student is distance learning.

Unsupported stacks have a habit of toppling over, as those of us who have any experience of the poor retention rates witnessed by early MOOC providers have already discovered. Although the widespread adoption of the MOOC represents a forward step in the evolution of online provision, it does not reflect the true potential of this extraordinary medium. If we consider the analogy of the introduction of the printing press, I've heard one commentator suggest that the MOOC is like asking Gutenberg to print everything that anybody brings to him and then throw it out of an upstairs window to be blown who knows where, to be used by who knows who, for who knows what purpose and to who knows what effect.

In my experience, the most effective online model for education is that which provides the learner with access to high levels of educational and pastoral support throughout the entire process; from enrolment through induction, to completion and graduation. Invariably, such a model necessitates the provision of high quality course materials, first class tutor support and feedback, and rapid intervention if and when the student is perceived to be experiencing difficulties with any aspect of their engagement with the course. Features such as easy access to online forums for students and their peers can be used to enable the sharing of work and ideas, provoke debate

and address any issues of isolation that the online student may experience.

In short, the effective online model may share many of the elements we expect to experience in a successful attendance based course; neither is more or less effective than the other, per se, and yet there still exists a substantial lobby which seems determined to provoke an "either-or" response.





## Chapter 20

# Online Education and Higher Education: An Essential Paradox or a Senseless Contradiction?

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In the preceding chapters, we have explored the potential and actual impact that new and emerging digital technologies have had and will continue to have on the process of teaching and learning. We have debated whether or not these technologies have provided educationalists with unprecedented opportunities and daunting challenges in equal measure and the likely effects that these will have in the longer term.

On the plus side, online learning provides a vehicle that has the potential to enable the recruitment of an extraordinary number of students; cohorts can include those previously excluded for reasons of geographical remoteness and personal circumstance. Perhaps for the first time, such students can be provided with access to a high quality educational experience.

On the downside, eLearning presents us with the problem of having to reconfigure our existing organisation, of devising a robust educational and technical infrastructure that underpins what will come to be regarded as the most powerful tool to impact on education since the invention of the printing press.

### The shock of the new

When the prospect of delivering education via the internet was first mooted, advocates of eLearning found themselves in the unenviable position of having to defend the medium against some robust opposition. Naturally, most of this came from those engaged in traditional forms of delivery and centred on issues pertaining to the standard of academic quality and pastoral support, the rigour of assessment procedures and, subsequently, the validity of any certifications awarded. In addressing these concerns, there was a tendency in the eLearning lobby to seek solutions

that involved the re-creation of the traditional, face-to-face teaching and learning experience online.

This is understandable; new concepts are more readily understood when presented within a familiar format.

However, this approach reinforced the underlying assumption that the attendance based student experience is inherently superior; that the face-to-face model sets the benchmark for the provision of education and training, and any alternative is destined to be a poor facsimile.

This is simply ludicrous; a classic example of comparing apples to oranges, having already decided that the former is less appealing than the latter.

The fallacy that attendance based provision always provides a better educational experience for the student assumes that, in terms of course delivery, one size fits all and that physical attendance by the student is not only possible but preferable.

It is not surprising that many anti-online standpoints are rooted in anxiety, fear and uncertainty. The unknown tends to be more palatable and less threatening when it is presented in a familiar form; perhaps this is why our digital storage systems are based on the file and folder format and our online learning environments employ the familiarity of the tutorial, the forum, the classroom, studio and lecture theatre. However, ultimately the responsibility for this fear of radical change lies with us; the anxiety about unreservedly embracing the unknown is ours, and it is determined by our generation's experience of education.

## The traditional model must have worked because we turned out okay... didn't we?

The current generation of those tasked with enabling the delivery of education online may need these familiar academic anchor points too – the classroom, the lecturer, the library – but a younger generation of new learners does not and will not need these same elements, as we progress further along the online route.

The citizens of this Brave New World have already evolved and progressed from living solely in the “real time” world; establishing for themselves a range of extended identities in a variety of virtual worlds that have considerably fewer boundaries.

This completely negates the argument that the delivery of education must be synchronous, that tutor/student interaction must occur in real time and that education providers must develop a facility that enables this; a facility that would be completely contrary to the manner in which the vast majority of users employ digital media.

The desire to concoct vehicles for synchronous, “real time” interaction online actually creates unnecessary hurdles; work and family commitments, lifestyle choices and international time zones all become limiting factors. The staples of everyday life such as commerce, communication, entertainment, and education are available 24/7 via the Web. The text, the tweet, the blog and the iMessage all encourage asynchronous communication. Within the last fifteen years we have moved from the consumer of education being forced to travel to the source of its delivery to the consumer being empowered to access education on demand; whenever, however, and wherever it is required.

## Chapter 21

# This is Where We Are, but Where Might We Be Going?

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As discussed previously, education does not necessarily mean congregation. However, although the classroom and lecture theatre as we know them are on the verge of being consigned to the dustbin of educational history, as spaces defined by purpose, I suspect that they will live on in other forms.

In the short term, such spaces will be preserved digitally.

Online providers have adopted the interactive, 3D, simulated environment and, given our hankering after traditional forms, today's student already expects to meet peers and professors routinely in a version of cyberspace. But this is transitory. The communal classroom/lecture theatre model will become less familiar and ultimately obsolete; so too will the traditional semester/term structure for course delivery.

The role of the teacher/professor/trainer will become less rigidly defined and we will begin to focus more on the sharing of skills, knowledge and expertise; regardless of formal teaching qualifications. These new educators will be employed not by physical institutions, but by global online providers who aim to source those who are leaders in their field, no matter where they are located geographically.

In terms of delivery, gamification is already influencing providers and online education will move towards the immersive environment. We will see customised, individual learning experiences that are delivered to the student's device of choice as compact sessions of ten to twenty minutes, with increasing reliance on visual, as opposed to text based, content.

However, the speed of development is such that it is becoming increasingly difficult to claim a comprehensive knowledge of the range of technologies available, a basic understanding of their capabilities or a vague notion of how they might be utilised within the field of education. Nevertheless, if we are to harness this vast technological powerhouse and apply it effectively, we must approach it as we expect our students to approach their studies; with an open mind, a flexible, inquisitive attitude and a willingness to be astonished.



# About the Author

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Michael has extensive experience in the writing, directing and delivery of education programmes across a range of media, and is currently Director of Communications and a member of the Board and Management team at IDI.

Michael has fulfilled a wide variety of functions within the company, including the development of a pedagogy for online delivery, writing and editing of course materials for online provision, international and domestic business development, as well as the writing of resource materials and representing IDI in Europe, America, Russia and China.



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