

Revolution or Evolution?  
**Technology's Effect On  
Distance Learning**

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## Introduction

*Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught.*

*(Wilde, 1913 p.111)*

The quote above implies that traditional education, as important as it may be, is not what makes us wise. Our own will to develop our knowledge and learn about what we feel passionate about is what structures us as individuals. This may not happen between the ages of five and 16 years, when in this country, we are designated to complete our education, from a state controlled curriculum of subjects. The things that cannot be taught and supposedly those that are worth knowing, come with our own determination to learn and educate ourselves.

The need within modern society for constant development of knowledge and learning has a lot of people furthering themselves through study groups, evening classes and personal private reading. However this only serves the purpose to a certain point and a person's need for some structured learning alongside their paid occupation and personal or family lives has to be fulfilled in other ways. This also makes the assumption that the person lives in an area populated enough to justify a study or reading group dedicated to a specific subject, especially if that subject refers to an individual's occupation or special training needs.

Distance learning allows people to develop their education as their lives progress. Avoiding the stringent boundaries and restrictions applied to traditional learning environments, people can study whilst carrying on with their personal and professional lives, using their free time as and when they can to complete their 'course'.

The idea that distance learning was initially created so that people could earn money and extend their education at the same time promotes this idea of lifelong learning that seems so entwined with life in the age of the Internet. In the 21st century, with the Internet being as broad and wide reaching as it is, distance learning in its strictest sense is available to everyone in the developed world. Having said this, despite the traditional methods of correspondence learning, less than 5% of the world's population has readily available access to broadband Internet. (Ottelini, 2006)

Technology in its broadest sense implies a vast array of physical and digital elements. I have chosen in this dissertation to focus on the aspect of the Internet. I am going to address the ways in which the Internet has closed the physical geographical gap within distance learning. I will look at some of the methods that have been developed within the Internet to deliver, archive and index content, build communities and how these attributes have contributed to the structure of distance learning.

I have chosen to entitle my two areas of investigation the evolutionary and the revolutionary.

The evolutionary model looks at how established distance learning institutes have embraced the Internet and its features in order to incorporate them with their previous delivery methods. This model is still founded in the original ideas of correspondence education and shares a lot of its elements with traditional and familiar educational structure.

The revolutionary concept includes models that have arisen from other social structures on the Internet, that have moulded themselves to suit the purposes of distance learning in a much more abstract manner. They include a different approach to the idea of learning and hierarchical structure.

This investigation will include an analysis of the roles of teacher and student and a look at the key differences between the two models. By evaluating the differences, I also hope to find the features they have in common and look into the pros and cons of each model.

I will also be researching some hybrid models that incorporate elements from both fields to evaluate any benefits or any success and whether they can contribute anything to possible future models.

I will conclude by establishing how the different approaches have benefited the concept of distance learning and evaluating their prospects. This will include the idea of introducing more blended methods that incorporate the best of both models if that concept arises as a possibility.

My research will be mainly formed from written articles but interviews with two primary subjects will form the body of two case studies. One will be a telephone interview with Dr Paul Clark, the Pro-Vice Chancellor of the British Open University. The other will be an interview with David Porter, the Executive Director of BC Campus in British Columbia, Canada. I hope that these interviews will add a first hand, real life aspect to my research and allow me to ask questions about the current state of the industry as well as what prospects lie ahead.

## A Brief History of Distance Learning

The idea of adult learning was unheard of until the second half of the nineteenth century. Before then, education was an exclusive activity, only for the rich and otherwise eligible parties. (Holmberg, 1995) Only then did it become desirable for older people to carry on learning as they grew and distance learning in its simplest form was developed to cater for those working to earn money to care for their families but wishing to learn in their spare time.

The earliest example of correspondence courses I could find was in The Boston Gazette of 20 March, 1728, 'Caleb Phillipps, Teacher of the New Method of Short Hand' advertised that any 'Persons in the Country desirous to Learn this Art, may by having the several Lessons sent weekly to them, be as perfectly instructed as those that live in Boston' (Holmberg, 1995).

In 1926 J.C. Stobart was working for a new broadcasting house by the name of the BBC, when he wrote a memo that supported the idea of a 'wireless university'. It wasn't until 1964 when Labour won the election that Harold Wilson pursued his idea of a 'University of the Air'. He appointed Jennie Lee as the Minister of Arts, working within the Department for Education and Science.

*I hated the term 'University of the Air' because of all the nonsense in the Press about sitting in front of the telly to get a degree.*

*(Lee, <http://www.open.ac.uk/about/ou/p3.shtml>)*

It was in the September of 1967 that the cabinet set up a Planning Committee 'to work out a comprehensive plan for an open university'. (The Open University)

It took four years to get everything into position, and in January 1971, the first students embarked on what would turn out to be one of the biggest distance learning universities in the world; The Open University (O.U.).

In 1946 the University of South Africa (UNISA) established its Department for External Studies, 21 years before the opening of the O.U., UNISA is one of the leading open and distance learning institutions in the world. It was a pioneer in the tertiary and external learning community and by overcoming cultural and linguistic

barriers it still aims to provide education to every country on the continent.  
(University of South Africa)

In the UK, implemented in the Education Act of 1962, a national Mandatory Award of student maintenance grant meant that most students in full time education could receive financial aid from their Local Education Authority. This liberation of knowledge and education made what was fashionable and fairly elite available to the masses and this action by the government opened up an ideal of education for everyone.

Because education was becoming a part of the life of working people, they needed to be able to learn alongside their day to day paid work. This combined with the willingness of people to learn as individuals as well as in a classroom environment provided the motivation for the pioneers of distance learning.

*With the rapid development of satellite and cable technologies in the 1980s, many educational institutions saw the opportunity for entering the field of distance education through the use of audio, audio-graphic and video conferencing.*

*(Inglis, Ling and Joosten, 2002)*

When the Internet arrived, it seemed to provide a perfect platform to fix all the flaws of the previous models.

## Distance Learning in the 21<sup>st</sup> Century

*The ultimate aim should be to ensure that everyone on earth can learn, lifelong, everywhere, at any time and in any subject area*

*B. Bloom (Dutton and Loader, 2002 p.129)*

The key aspects of the original correspondence courses are what have remained constant in what we now refer to as distance learning; a negotiation of student - tutor interaction and reference material. The way in which this reference material is delivered varies greatly between mediums and situations, but all retain some key features in their most basic forms.

### Synchronous/ Asynchronous and Linear/ Non-Linear

Distance learning institutions have two main foundations for delivering their content; asynchronous and synchronous. Asynchronous methods imply that the tutor and student are separated by both space and time and the model is comparable to more familiar styles previously used in correspondence courses and institutes such as the earlier Open University techniques. Mediums for asynchronous content include television broadcasts, radio shows and posted assignments. More modern examples would include fax, blogs and email. This is much better suited to larger groups of students, where each one can receive the same content in the same format and the tutor's original syllabus plan retains its structure.

More recently, with the introduction of high speed Internet and aspects such as Voice over Internet Protocol (VoIP) and the wider use of web conferencing, the second style, synchronous, has become much more popular and easy to implement. Synchronous activity means that the tutor and their student(s) can communicate in a live manner be it via video, speech, written or visual means despite geographical separation. These can range from a simple Instant Message (IM) program using typed communication, to a fully open work space such as SubEthaEdit (SubEthaEdit 2006) or iStorm (iStorm, 2006), which are network based programs that actually allow participants to create word documents, images, website layouts or brainstorm at the same time, in the same virtual space whilst talking to each other. Programs such as Skype (Skype, 2006) allow users to make one way phone calls to a large group of contacts, known as a 'Skypecast'.

Both approaches are valid in the right context. As mentioned previously, asynchronous methods are better for large groups or classes, where a certain amount of information needs to be conveyed to everyone. Synchronous methods are becoming more and more popular as they compensate for the displaced face to face 'real-time' aspect of traditional learning methods in smaller groups, again blurring the lines as to exactly what distance learning is in the digital age.

These methods can also be cross referenced with another interesting aspect to distance education methods and that is their typical style of delivery. Again these can be split into two key areas: linear and non-linear or random access. More traditional methods and correspondence courses are particularly linear. The information is delivered to the student in the order that the instructor desires, it is usually structured by time and units with a beginning and an end, similar to what would be found in the curriculum of a traditional school or college. The time element is not always present, allowing students to follow a particular course but at their own convenient pace.

In contrast, the non-linear model is seen in more modern approaches. With the presence of the Internet, a constantly available and seemingly infinite storage of data and information, people and students are capable of finding the information they need, when they need it to what ever extent they may wish. This style has no specific structure as such, no limitations or boundaries, but it is different in the way that people in general are not familiar with the model, compared to the linear mode which, because of its familiarity, is far easier to relate to.

So interesting conclusions and stances can be discovered when you look at a model and cross reference it's 'synchronous/asynchronous' values with it's 'linear/non-linear' model.

With these foundations in mind, the penetration of distance learning within the Internet is much broader than one might first think. The globalisation of the Internet actually makes the phrase 'distance learning' obsolete, in the fact that geographical distance is no longer an issue. When correspondence meant hand written and hand delivered, the distance aspect was obviously a key factor. Now that email is instant, video streams people from one side of the globe to another,

and two people in different continents can work on the same document in the same work space simultaneously, distance is not even a consideration.

So should distance learning be re-invented for our new era?

It could be said that it already has with the booming concept of Virtual Learning Environments (VLE), which seems to be the natural progression for distance learning institutes.

VLEs are online spaces normally supplied by existing institutes for their students and teachers. Teachers post their curriculum and units and anything they feel may be useful as well as external links. The students have the opportunity to retrieve this information at any time or location, then post questions or comments and work on modules. This allows easy tracking of student progress and participation. The VLE will often offer a selection of electronic communication mediums; email, discussion boards, wikis or forums, as well as blogs for both the students and teachers to host their own opinions, work and ideas. It also promotes the idea of peer learning and support. The students not only learn from the instructor, but because all of their peers' work and issues are made public, they can help each other and I think this is a key aspect to the future of distance learning.

*Our present educational institutions are at the service of the teacher's goals. The relational structures we need are those which enable each man to define himself by learning and contributing to the learning of others.*

*Ivan Illich 1971 (Dutton and Loader, 2002 p.128)*

This idea of a VLE has been used as the foundation in a lot of situations in different manners. The British Open University runs an entirely digital section of their institute. All course content and communication can be done online, removing the need for typical classroom timetables or structure. BC Campus is a model in British Columbia that uses digital space as a hub for a selection of institutes, but this will be covered in more detail later on.

But there has also been a completely new angle that has emerged from online communities and forums, which shares similar features with the concept of distance education, yet defies many attributes of established distance learning philosophy.

## Online and Organic

*Cyberspace. A consensual hallucination*

*William Gibson 1984 (Benwell & Stokoe, 2006 p.246)*

A plethora of online resources for establishing, sharing and contributing content has produced a completely new way of learning and gathering information. Design forums present a perfect example of these communities. A selection of facilities related to the subject, from news and chat to tutorials, and critiques establish the community. Each person contributes their own work, ideas or story and voluntarily helps their peers wherever they can, to what ever extent they are capable. This idea of the student and instructor roles constantly switching and the constant concept of 'peer' being changed presents an unfamiliar and unique style of learning. Also, this peer-reliant approach to working is what ideally links it with the VLE model.

This new digital style symbolises something organic, limitless and almost guerilla compared to the structured and clear-cut style of early correspondence courses and even some of the necessary restrictions of current distance learning institutes. This would contradict the idea of a progressional change from one to the other, and more of an all new approach that simply uses similar foundations.

The new style of online forum learning has been closely scrutinised by those in the online learning community. Because it is something new and radical in comparison to what has been tried and tested and progressed over the years, it comes under much closer evaluation. People are trying to benchmark the two models to try and assess which works, and which is better. Interestingly, at the same time, nobody is applying the same evaluations to face to face learning to see if that is still as effective as we think (Porter, 2006).

## The Online Revolution

*Plato defined the limits of the size of a city as the number of citizens who could hear the voice of a single orator: today those limits do not define a city, but a civilization.*

*Lewis Mumford 1934 (Mattelart, 2003 p.45)*

Although in this piece Mumford went on to talk about anywhere in the world where people spoke the same language and had access to a means, they could easily

communicate. But this quote also says something about civilisations in a modern context, no longer limited by geographical lines or three dimensional space, they are now multiple, overlapping, interweaving and completely intangible.

This can be reflected onto the digital spaces where our new learning styles are hosted. No longer is it a challenge to learn a specific subject due to the limited number of people around you, or are you forced to broaden your horizons or move in a different direction because there are few with the same precise interests as you. People can support their every whim on the Internet, with interest groups, forums and bulletin boards of every form only one search away.

There are two sides to this discussion, some saying that this has made society as a whole much more narrow-minded. The fact that it is so simple to find people who agree with you means that you are never forced to question yourself, or challenge your beliefs. (Rave 2012, 2006) Others say that it has expanded societies, allowing them to share their cultures, traditions and ideas, each person being able to explore whatever avenues they wish.

Despite the ideals of cyberspace and virtual communities, Computer-Mediated Communications (CMC) remains unavoidably earth bound.

*We can be multiple, a different person...each time we enter cyberspace, playing with our identities taking ourselves apart and rebuilding ourselves in endless new configurations.*

*D. Bell 2003 (Benwell & Stokoe, 2006 p.245)*

Bell here speaks in relation to identity structure and the flexibility we have online, which allows us to manipulate ourselves and our roles fluidly i.e. instructor and student, passive and active, 'noob' and knowledgeable. Participants in CMC still restrain themselves to real life boundaries such as chat 'rooms' with human emotions and three dimensional reference to 'over here' and 'up there'. These situations don't address the Internet's potential of 'spatial and temporal indeterminacy, and the escapist, transient and above all, *post-modern* complexion of cyberspace.' (Benwell & Stokoe, 2006 p.245). So this could conclude that these online spaces are not as detached from real life learning as they could be. This could be viewed as a link to traditional methods, implying an evolutionary aspect, but this 'earth bound' issue is not something seen only in our learning

communities, every community on the Internet finds itself subject to the same limitations.

Design forums, tutorials, any process from yoga to electronic engineering, in any size or depth can be sourced online and these all constitute to a incomprehensible volume of information and knowledge, that is out there to be learned at any individual's own will, often in a static one off instance, such as a tutorial page, but often free and supported with the communities, blogs and email correspondence.

One of the Internet's biggest current elements shares ground with distance learning. Podcasts are easily accessible, indexed and can be as easily created by anyone who wishes. Made up of digital video and audio delivered straight to your mobile device on demand, it is the epitome of what distance learning could be in the 21st century. One could argue that it lacks one to one time with the tutor or instructor, but all good educational podcasts and most personal ones have corresponding blogs from the authors and sites that backup the info in the cast, and sometimes even complete sub-communities. Another web trend that is implementing distance learning is the world of Second Life. The developers have established a platform on which teachers can host their own courses by the name of Campus: Second Life (Second Life, 2006). These manipulations of the concept exploit the flexibility of the Internet model and its ability to adapt to the needs of its users.

Another aspect that seems to have been unwittingly expanded in this new digital variation is the anonymity of the 'tutor'. Under the structure of the older correspondence courses the instructor and student may never actually meet and this would have added an unfamiliar aspect to the information, as it appeared regularly from what would be an unknown and seemingly 'virtual' person. Now with the 'forum' based aspect of the online spaces the users have tested and stretched this idea of 'virtual identity'.

*Semantically, 'virtual', is, of course, opposed to 'real', and the semantics of 'virtual' in everyday language has connotations of 'seeming' (rather than being), of potential rather than actuality, of inauthenticity, simulation and symbolisation.*

*(Benwell & Stokoe, 2006 p.244)*

This 'virtuality' is allowing participants to become someone they are not. This may mean that those people who are normally shy or unsure of their opinion in a verbal or 'face to face' fashion have the time and space to get their point across and this is also a positive aspect of the VLE model within an institution. Critics say that this format of communication is damaging these individuals' ability to communicate in a traditional group situation, and having a negative effect on the development of their interpersonal skills.

These are familiar comments, as they have also been used in arguments for VLE spaces, as they aim to combine both digital and written communications as well as class room, face to face and verbal sessions.

*Due to anonymity, freedoms of time and space, and absence of audio-visual context in cyberspace, identity is deemed to be more unstable, more performed, more fluid (and thus prone to inauthenticity and deception).*

*(Benwell & Stokoe, 2006 p.245)*

There is an underlying concern with online information, and it's one of the biggest issues with one of the Internet's current major players; Wikipedia. This issue is that of authenticity. Wikipedia is entirely constructed by the public, users, and anonymous figures. This means there is only so much that can be done to validate the data that is published. In the case of our online spaces, this is also a problem. There is nothing to say that your instructor, who more often than not offers their knowledge to others for free, is offering appropriate, interesting or even correct information. This is contrasted with the financially supported, reputable distance learning institutes that offer their validated and accredited qualifications for a fee. This can also be reflected on within the peer learning environments, as good an idea as they may be, ideally they should be monitored regularly, especially within the more institutionalised models.

However online communities are heavily supported by their members, and reviews, comments and general feedback on other members' contributions usually helps negate spurious content and promote the positive (digg.com, 2006), this statement would still seem to point towards an ideal compromise.

## The Traditional Evolution

Where the organic style of online forums and learning groups seems in many ways to have grown from something separate from distance learning, there is a much more structured and established evolution of the concept, and that is the concept of the VLE. Established institutions have embraced the technological advancements of the last few years to develop digital spaces where students on and off campus can participate in course content online to varying degrees, from an enhancement of what has been said in class on an existing face to face course, to a fully online curriculum. This has allowed institutions to take on foreign students to undertake their courses without the student actually having to be on campus. Good examples of this are the University of South Africa and the University of Queensland, Australia who have an entire department of staff dedicated to distance learners.

In recent years a new target audience for distance learning institutions has evolved. These new students tend to be already enrolled on a course at another institution somewhere in the world (Holmberg, 1995), and are combining the term time, peer reliance and class structure limitations of traditional methods to distance learning courses as well in order to enhance their degrees and the breadth of their learning.

This concept of delivering content to students that are already enrolled elsewhere describes a new era of students. With so many students participating in self motivated learning and the abundance of digital media, projects that combine the foundations of traditional learning styles with the infrastructure of Virtual Learning Environments are proving to be very successful in their field and are introducing a new hybrid model for distance learning.

### Case Study: BCCampus - Interview with David Porter

One of these projects is that of the BC Campus which is running in British Columbia, Canada. The campus is a partnership of 26 higher education institutes, which use this project to grant their students access to a greater source of information, facilities, peers and tutors.

In an interview with David Porter, the Executive Director of BC Campus, Porter mentioned that around three years ago, the government realised that a lot of

students were enrolling on multiple courses at different institutions and then bundling them all into their credentials on graduation. So the BC Campus was developed to act as a portal allowing all students despite their institution to have the same look and feel of this central hub, whilst each individual institution could maintain its own protocols, rules and branding.

Many colleges and universities are reluctant to join in such schemes whereby they release their content on the Internet because of reserving what they see as very valuable intellectual property (IP). However there are a number of big U.S. based colleges, such as M.I.T. and Stanford, which have even started to release their lectures, recorded in video and broadcast as podcasts. They do this under the impression that the content alone is worth relatively little in comparison with the networking and personal experiences achieved by being within such a reputable institution. This access to what until very recently was viewed as highly privileged and exclusive activity echoes the point made earlier concerning when the Open University was established, and the public gained access to extended education, which before the O.U., was very limited.

This question of IP arises in a lot of situations where learning from others is involved. As it has become so easy to publish information, be it lecture notes, interviews or any sort of media where a persons knowledge, ideas or opinions are being publicised, many people believe that this information is technically their property.

When this is put into the context of our distance learning institutes and schemes, it is split quite clearly between the different styles. For example, the O.U. retains the IP of any broadcast or published lectures or notes instead of the tutor or instructor (Clark, 2006). This coincides well with the structured, organised foundation of the institution. In general, if an instructor is under the employment of an institution the IP is signed over to that institution. If an instructor is working in a research context within the institution they normally have the opportunity to retain their IP. On the other hand, when we look at our new digital variant, different forums and groups have different terms and conditions referring to the IP of any content posted. This varies from site to site and again suits the organic, unstructured style of the teaching and learning, but in many cases people post their information knowing that others will use it and publicise it.

Porter talked about the IP issues with his model. Because BC Campus covers a wide range of content from different tutors from different institutions, it usually retains whatever IP model the instructor has with their institution. However, when BC Campus pays an instructor for content, they often sign a geographic reuse license, which implies that the information can be reused by BC Campus within the boundaries of British Columbia (Porter, 2006). This IP model has been picked up by other institutions and groups looking at the BC Campus model and in general it is being looked at as something that is not being done anywhere else.

BC Campus utilises online collaborative spaces to create an infrastructure for its users to work together online. It uses two programs, Breeze from Macromedia/Adobe (Breeze, 2006) and Elluminate (Elluminate, 2006). This allows students from the same course, but studying on different campus' and potentially different institutions to work together on their idea development. In my interview with Porter, he stated that these resources were in fact being used more by students as a peer to peer learning/mentoring environment. Some of the courses require their students to work together in groups in the online discussion forums, to organise events for other students. Porter said that he sees an interesting future in these online collaborative products, right now there is a call from the professor/instructor side for products allowing them to create 'prof-casts' which can then be downloaded by their students, and also for programs that would allow for an interactive digital means of getting their lectures to their students (Porter, 2006).

Porter went on to say that a lot of the academics have approached the online digital space in the same way that they would approach a face to face curriculum. There hasn't been a wave of creativity that has swept over the delivery of content, 'that has allowed people to break out of the boundaries of the structured course model and make it a much more self directed and socially constructed knowledge environment' (Porter, 2006). One of the main things the project is focussing on is the 'new and more creative instructional development models and delivery models' (Porter, 2006). I also asked Porter if he felt that this lack of imaginative methods of delivery could change as younger instructors developed through the ranks, and bringing a more innate digital point of view with them. His reply was that he felt it was less to do with the youth of the instructors, and more to do with the expectations and demands of the student body.

Surprisingly, when I asked Porter about the use of the online forums supplied by the BC Campus, he stated that the least used area was in fact that of the student body. This may be due to the fact that they do not yet have the right formula for the concept, but it's something that will come with time. In fact, the most used area of the forums was that of the teachers. They use it to report back on methods of delivery and concepts that did and didn't work out, new conferences, jobs and new trends. The faculty members also use another forum on a regular basis which allows them to communicate with vendors that inform them of progress with products and services that are relevant to them, and also they have the opportunity to feed back to the vendors on their products (Porter, 2006).

Porter concluded by saying that a lot of education is still very 'push', where the information is pushed onto the student, in what ever format or time scale, in a very similar fashion to a traditional learning space. He sees the real breakthroughs happening with the 'pull' models, which are much more familiar and regularly presented in the organic forum environment. Porter said that this is not as prevalent as you might think in the student areas of the BC Campus model. He comments that this is due to the fact that students have trouble separating the formal from the informal, not realising that the informal could be equally powerful, if not more so, in the communication of ideas and learning.

The best way of maximising the impact of this online learning is built in to the tutor training program with the BC Campus model and it states to tutors that they should ask students what they would like in this space, what would work best for them, in what format and style etc. It's ironic how this concept is so simple, but in a lot of cases tutors don't like to risk handing over that power to the students and it can create a sense of insecurity. This is strongly contrasted with the online examples where the student teacher roles are continuously fluctuating, the aim there seems to be more for the will and eagerness to learn, and not divided and compromised by the democracy of modern educational institutes. The organic, 'socialist' approach has had a visible effect on the balancing of student and teacher roles in more digital, traditional contexts such as the British Open University (O.U.).

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So although this seems to be a natural development of the distance learning institutions and an evolution of the VLE systems that are so prevalent, the students themselves seem to be having a mental block when it comes to combining this

concept with the systems of online forums, discussion boards and communities etc. This seems to imply a much stronger division between the two styles than I originally assumed. As Porter put it, the traditional is very 'push' with its methods, and the online spaces are very 'pull'. Perhaps this difference is where the evolution/revolution line has been drawn. But is it possible to combine the two psychological levels of informal and formal learning in a distance learning or college environment?

The O.U. is currently in the process of implementing a new VLE for their students, which is predicted to be completed and ready for use in February of 2007. The new environment is based around a very popular open source VLE model named Moodle (Moodle, 2006). At the moment, the O.U. uses a combination of different programs to construct their online environment, but by implementing what is said to be the biggest and most intricate example of the Moodle system, they will not only create a uniform system for their students, but make a huge and valuable contribution to the Moodle community (eGovMonitor, 2005). Both parties stand to benefit from this move as the O.U. students will gain a great advantage in their e-learning facilities and the O.U. will contribute to the development of Moodle, years of experience and resources in distance and online learning.

### Case Study: The O.U. - Interview with Dr Paul Clark

Technology has allowed the O.U. to develop rapidly from the basic ideal of correspondence learning to a much more familiar digital model. Students' ability to search a wide range of digital resources and correspond not only with their instructor, but with their peers, in a fashion that resembles the familiarities of traditional classroom education has both quickly and conveniently opened up the institutions approach to teaching.

In my interview with Dr Clark I asked about the ways in which the O.U. digitally supplement their face to face time with instructors. This is a key element of distance learning and the Internet allows the O.U. to communicate with their classes using computer conferencing, which allows users to see each other via webcam as well as hear each other over an audio feed. The two key formats that are used are text based conferencing but also synchronous audio conferencing. The institute have in fact developed their own online collaboration model by the name of Live Scene, which allows students and lecturers to join 'rooms' within the

program and utilise typed correspondence, as well as synchronous audio and an interactive, virtual whiteboard which acts as a screen that all users can work on whilst seeing other users' contributions in real time. The system also allows students to establish their own 'rooms' so that as well as attending the main channel they can discuss subjects privately if necessary. The synchronous audio facility is mainly utilised by the foreign language students. It plays a key role in the development of the oral aspect of the course (Clark, 2006).

We went on to address the participation of the students within the forums and whether or not they are used as a peer to peer learning platform, or whether the key role of the instructor is held as the main source of information. The institution utilises both aspects very well. They have an established space where the tutors hold their moderated tutorials but also the Students Association host over 1000 conferences which are much broader and varied in their content and this allows for a lot of help from student to student (Clark, 2006).

Students related to the BC Campus project found it difficult to divide the formal and informal attributes of traditional and online learning environments. I found it interesting that Dr Clark stated that this was not such a problem with the O.U. students, because although they are enrolled on a course with a timetable and contract, they are not tied down to the boundaries and limitations of class room learning. They are able to focus simply on the digital, slightly more informal approach. This seems to allow a good blend between the established structure of the institute and the more organic model.

One of the elements that goes against this blend is that of intellectual property (IP). Online communities are very open with the redistribution and redirection of content and in recent years have applied themselves to models such as the Creative Commons. However, in the case of the O.U., its content generated by instructors for use by O.U. students, belongs to the institution. As a business, this is understandable. However, the O.U. has just released over 900 hours of study material in a project entitled Open Learn (Clark, 2006), that allows anyone access to their content. This has also been seen in the U.S. where colleges such as Stanford and M.I.T. have released broadcasted content of their lectures and in some cases lesson and curriculum plans, course content and lecture notes.

*Where we see an opportunity to make good social use of the materials we generate, our recent strategy has been to get them into the open source or open content communities.*

*(Clark, 2002)*

The O.U. over the last few years has been using a collection of different programs to facilitate their technological requirements such as email, blogs, forums and conferencing. They have found themselves in a position where they need to consolidate these functions into a single service, allowing a more integrated online environment. They chose to develop the open source option; Moodle, as it would supply a 'core of interconnected functionalities which [they] could develop' (Clark, 2006). Moodle is Open Source, which means the source code and program are free, and designed to be developed by the community in order to develop the product. It is described as a Course Management System (CMS) (Moodle.org) and because of its Open Source status, it is extremely flexible. It has been tested against the needs of the O.U. in relation to volume and workload, and the O.U. is developing their own version at the moment. So not only do they have a completely customisable interface, but they are offering something back to the Moodle community. Again, this echoes certain philosophies of online development and communities.

Dr Clark went on to talk about the integration of publicly available social services such as MySpace, YouTube and Flickr into the more formal curriculum oriented aspects of the courses, and this integration is something that will come with the new Moodle VLE. This will allow not only a wide variety of learning materials and approaches, but it will retain the vital administrative functions of the institution.

This idea creates an image of a blended model unlike any other. The integration of online social groups and cultures does seem to blur the lines between the two groups and it's the utilisation of these features that would help to validate a reputable hybrid model.

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## Conclusion

### Pull - The Revolution

This represents the organic digital model, utilising a lack of bureaucracy and peoples' willingness to contribute knowledge, feedback and information to a community they feel passionate about, in their free time, usually free of charge. This could be referred to as a 'pull' style of learning, where the learner actively seeks out their content. Distance learning's foundations lay in giving people the ability to learn along side their paid work and family lives, and the broadness and flexibility of this model definitely promotes that aspect.

Technology has allowed this style of user to gain access to a virtually infinite volume of learning materials, hosted in a range of virtual spaces ranging from communities and forums to one off publications and papers.

Other technological developments in this area have made this approach to learning increasingly attractive and interwoven with our lifestyles. Podcasting is one of these key features, allowing users to download video and audio content focussed on a plethora of subjects from biophysics to juggling.

However, this model relies heavily on peoples' willingness to participate and contribute, therefore it is very peer reliant. The structure of its supporting communities is also vital in order to maintain the validity and quality of its content.

### Push - The Evolution

Established distance learning institutes are developing on years of experience in multi-media educational distributions. They use a solid, structural and progressive scheme that people are familiar with from traditional learning techniques. This means that people are fed the information in a very 'push' style model (Porter, 2006).

Technology has allowed these institutions to consolidate their knowledge base in a central online space, allowing students to participate at their own time and pace. The Internet has promoted a lot of features that we find in the online 'pull' model, such as independent and peer to peer learning and tuition. This ability to

correspond with each other as quickly and efficiently as with the instructor seems to be evolving the model much more towards that of the online spaces.

The course structure is still linked to a defined curriculum that is delivered, to a certain point, at the will of the institution. As a business, the institution also charges fees for its services and owns all of its materials.

### Push and Pull - The Hybrid Model

I think the most interesting concept of technology's effect on distance learning will come when these two elements are brought together to create a model that facilitates both of these formats. Currently, as discussed in the BC Campus case study, students have difficulty trying to separate what is formal and what is informal when it comes to learning. So although they may use online spaces, forums or discussion boards in their own time they restrict themselves to the limits of their institute when it comes to their official education. This is opposed in the case of the O.U., which I think is evolving into a much more interesting, blended model.

There are certain elements that stop these models from mixing to become what could be an ideal hybrid, and one of those is the bureaucracy of traditional and established institutes. This links onto elements such as intellectual property and contracts of instructors. These limitations and boundaries which are reflected in the style of the curriculum and learning are what liberate the 'pull' model. A much less stringent organisation of information and a virtually non-existent chain of power or rank create what would seem to be an almost socialist approach to online learning. It also suits the original principles of distance learning in a much more abstract yet relevant way. On demand access to any information and instructions allows the user a completely personalised course at what ever depth they wish in accordance with their other lifestyle obligations and, more often than not, free of charge.

Other bureaucratic aspects of the 'push' model draw similar lines between the two models including IP and instructors' continuous rank over their students. As stated in the interview with David Porter, the stubbornness of some instructors to hold their position over their students has hindered the development of the VLE models. This is in contrast to the online spaces where there is no real continuous rank, and the student and instructors are in constant tumult.

I believe that it is these factors that have forced a barrier between the revolutionary and the evolutionary models. They share common foundations and familiar means of delivery but their differences would be hard to overcome with the above issues in place.

However I think that the O.U. poses some exciting ideas. The integration of social web elements into the curriculum and the continual promotion of peer learning are important elements if a successful blended model were to be established. I also think it would require the ability to be accessible at any level or depth at any time of day, in the way that the online communities are now. This is being explored with the model of the Open Learning scheme and the broadcast content from the U.S. institutes and also within elements of the BC Campus.

I think the idealistic view of free education for anyone who wants it is a difficult one. The constant business requirements for established institutions to develop and grow, with formidable content and instructors will stop the evolutionary model from ever being free. The revolutionary model relies on peer learning and tutoring, as well as peoples' willingness to offer their work for free without issues of ownership or stringent IP. Schemes such as Creative Commons would play a key role in the development of online, educational spaces of the revolutionary model.

I believe that a balance of Open Source applications such as Moodle (Moodle.org) and peer established learning could be the foundation of lifelong education for everyone. But the financial and economical implications of free education are unprecedented and as long as institutions like the O.U. continue to develop their programs in the way they are, peoples' innate preference to structured 'push' style learning will definitely maintain the divide between the evolution and the revolution for a few generations to come.

## Appendix

### Approaches to Research

As a lot of the body of my research is relatively current and based on the Internet, my only real literary research were titles concerning the psychology and social aspects of online communications and communities. In order to understand more about the online cultures, I participated in a number of online forums and groups, including The Root, an online design forum and digg.com, a news and social commentary website. I found that the best way to source ideas was reading websites, blogs and forums and these are listed in my Additional Reading list. I also watched conferences and keynotes from Intel Corp and news broadcasts from the BBC. I found that talking to people in the industry was also very inspirational, and their up to date knowledge and opinion added a sense of validity to the way I structured my thoughts.

These interviews can be downloaded or listened to at:

[www.danread.net/revolution-evolution](http://www.danread.net/revolution-evolution)

## Bibliography

### Books

Benwell, Bethan & Stokoe, Elizabeth (2006) **Discourse and Identity**  
Edinburgh University Press

Dutton, William H. and Loader, Brian D. (2002) **Digital Academe**  
London, Routledge

Inglis, Alistair Ling, Peter and Joosten, Vera (2002) **Delivering Digitally: Managing the Transition to the Knowledge Media**  
London, Koogan Page Ltd

Mattelart, Armand (2003) **The Information Society**  
Sage Publications

Wilde, Oscar (1913) **The Critic as Artist in Intentions**  
London, Methuen & Co.

### Reports

Porter, David - **BCCAMPUS: CREATING A SUSTAINABLE ONLINE LEARNING CONSORTIUM** - BCCampus, British Columbia, Canada. (2006)

Stacey, Paul - **Open For Innovation** - BCCampus, British Columbia, Canada. (2006)

### Websites

BBC News  
URL: <http://www.bbc.co.uk/news> [accessed: 12th October 2006]

BC Campus  
URL: <http://www.bccampus.ca/Visitors.htm> [accessed: 6th October 2006]

Degreeinfo.com **A Distance Learning Timeline**  
URL: <http://www.degreeinfo.com/timeline.html> [accessed: 25th September 2006]

Digg.com  
URL: <http://www.digg.com> [accessed: 8<sup>th</sup> October 2006]

Distancelearningnet **Copyright Concerns in the Age of Distance Education**  
URL: <http://www.distancelearningnet.com/reports/13/1> [accessed: 31st October 2006]

Distancelearningnet **Technologies Involved in Distance Education**  
URL: <http://www.distancelearningnet.com/reports/11/2> [accessed: 6th October 2006]

eGovMonitor (2005) **Open University going Moodle**  
URL: <http://www.egovmonitor.com/node/3460> [accessed: 19th October 2006]

Holmberg, Borje (1995) **The Evolution of the Character and**

**Practice of Distance Education**

URL: <http://www.fernuni-hagen.de/ZIFF/Holmberg.htm> [accessed: 30th September]

JISC E-Learning Focus (2005) **Open University chooses Moodle**

URL: <http://www.elearning.ac.uk/ontheweb/OUmoodle> [accessed: 25th October 2006]

**Moodle**

URL: <http://moodle.org/> [accessed: 28<sup>th</sup> October 2006]

Rave 2012 (2006) **Interview with Miles Metcalfe**

URL: <http://www.danread.net/rave2012/behind/2006/06/discussion-with-miles-metcalfe.html> [accessed: 29th October 2006]

Second Life (2006) **Community: Education**

URL: <http://secondlife.com/community/education.php> [accessed: 30th October 2006]

Sewart, David (1986) **Single Mode Versus Dual Mode: A Fair Question?**

URL: <http://www1.worldbank.org/disted/Management/Governance/dual-01.html> [accessed: 17th October 2006]

The Open University **History of the O.U.**

URL: <http://www.open.ac.uk/about/ou/p3.shtml> [accessed: 25th September 2006]

University of South Africa

URL <http://www.unisa.ac.za/default.asp?Cmd=ViewContent&ContentID=7> [accessed: 25<sup>th</sup> October 2006]

Wikipedia **Distance Education**

URL: [http://en.wikipedia.org/wiki/Distance\\_learning](http://en.wikipedia.org/wiki/Distance_learning) [accessed: 25th September 2006]

Links to most of my web references can be linked to from:

[www.danread.net/revolution-evolution](http://www.danread.net/revolution-evolution)

## Computer Programs

Breeze (2006) **Adobe/Macromedia**, ver. 5.0

URL: <http://www.adobe.com/products/breeze/>

Illuminate (2006) **Illuminate Inc.** ver. 7.0

URL: <http://www.illuminate.com/>

iStorm (2006) **Math Game House**, ver. 3.41

URL: <http://www.mathgamehouse.com/istorm/>

Moodle (2006) **Moodle**, ver. 1.6.3

URL: <http://moodle.org/>

Skype (2006) **Skype Technologies**, ver. 2.5  
URL: <http://www.skype.com>

SubEthaEdit (2006) **TheCodingMonkeys**, ver. 2.5  
URL: [www.codingmonkeys.de/subethaedit/](http://www.codingmonkeys.de/subethaedit/)

## Email

I sent email requests for information and interviews to a variety of people including the One Laptop Per Child program, Intel, The Open University, David Porter of BCCampus, the journalist Guy Kewney, LearnDirect operators UFI, John Naughton of The Observer and Nathan Prisk of Combined Universities in Cornwall amongst others.

All my interviews were eventually done in audio form.

## Television/Video

BBC Look East, **Interview with Jane Day and Dr Paul Clark**, BBC, September 12<sup>th</sup> 2006, 1 Minute 39 Seconds, Quicktime Movie format.

World Congress on Information Technology, **Intel Corporation Presentation - Paul Otellini**, May 1<sup>st</sup> - 5<sup>th</sup>, 40 Minutes 20 Seconds, Streaming Windows .asx format.

## Interviews

**Clark, Dr Paul** - via telephone/Skype - Monday October 30<sup>th</sup> 2006 - Dr Clark is the Pro-Vice Chancellor of The Open University.

**Porter, David** - via Skype - Friday October 6<sup>th</sup> 2006 - David Porter is the Executive Director of the BC Campus project in British Columbia, Canada.

These interviews can be downloaded or listened to at:

[www.danread.net/revolution-evolution](http://www.danread.net/revolution-evolution)

## Additional Reading

Africa Educational Trust (2005) **AET offers distance teaching to overcome common accessibility problems**  
URL: <http://www.africaeducationaltrust.org/africa.html> [accessed: 9th October 2006]

BBC World Service Trust (2005) **East Africa: Distance learning donations**  
URL: [http://www.bbc.co.uk/worldservice/trust/news/story/2005/07/050705\\_radioamnesty.shtml](http://www.bbc.co.uk/worldservice/trust/news/story/2005/07/050705_radioamnesty.shtml) [accessed: 8th October 2006]

Emeran, Riyad (2006) **Intel World Ahead Programme**  
URL: <http://www.trustedreviews.com/article.aspx?art=3482> [accessed: 4<sup>th</sup> October 2006]

Paul, Ryan (2006) Intel reveals specifications for budget-priced Classmate PC.

Ars Technica

URL: <http://arstechnica.com/news.ars/post/20060929-7864.html> [accessed: 30th September 2006]

The Daily Times (2006) PDAs rise as educational tool

URL:

<http://www.delmarvanow.com/apps/pbcs.dll/article?AID=/20060924/NEWS01/609240303/1002> [accessed: 26th September 2006]

The Root

URL: <http://www.theroot42.org> [accessed: 15<sup>th</sup> October 2006]

Wikipedia Ananda Coomaraswamy

URL: [http://en.wikipedia.org/wiki/Ananda\\_Coomaraswamy](http://en.wikipedia.org/wiki/Ananda_Coomaraswamy) [accessed: 8th September 2006]

Wikipedia Fordism

URL: <http://en.wikipedia.org/wiki/Fordism> [accessed: 13th September 2006]

Wikipedia Frederick Winslow Taylor

URL: [http://en.wikipedia.org/wiki/Frederick\\_Winslow\\_Taylor](http://en.wikipedia.org/wiki/Frederick_Winslow_Taylor) [accessed: 13th September 2006]

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