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## **A PRACTICE ORIENTATED FRAMEWORK TO SUPPORT SUCCESSFUL HIGHER EDUCATION ONLINE LEARNING**

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### **Abstract**

Since the year 2000 learning online has grown considerably and various models have evolved to support strategic planners and practitioners' decision making. The Joint Information Systems Committee (JISC) pedagogy strand helped to classify a wide range of models under six headings. These classifications have been further analysed and expanded to create a practice orientated framework for modelling online learning.

The purpose of this study is to present practical examples of pedagogic and educational practices that support successful Higher Education online learning, using the classifications of the aforementioned practice orientated framework. It is hoped that the study will provide strategic planners and practitioners with a framework and examples of successful strategies with which to investigate their own organisational practices and shape their own successful online learning strategy.

### **Introduction**

In 2011, the year in which our online learning department began, the social landscape was changing significantly. On the one hand Web 2.0 was routine, the smart phone was ubiquitous and Facebook permeated all walks of society, on the other hand these changes in the social landscape had little impact on our educational landscape. Granted, academics became more aware of the Virtual Learning Environment's (VLE) social tools but the experimental usage of these tools to offer Higher Education to a wider audience was limited to a few enthusiasts. The reality for the online learner was often sporadic support, resulting in emails waiting to be read or queries waiting to be answered. This disjointed approach did not result in an excellent student experience.

Recognising the opportunities that online education could offer, the University of Derby could either continue to grow their online audience slowly or they could take the radical step to remove online development and delivery from faculties and create a specialist department dedicated to this mode of delivery; the University chose the latter and University of Derby Online Learning (UDOL) was born. The department has been successful in terms of growth; in 2009 the University's HE student population reached 20,053 with 649 being online across 7 programmes, this was approximately 3% of total. In 2017 this has risen to 3,500 students in 40 major awarding programmes, approximately 15% of the University's HE student population (University of Derby Online Learning, 2017). Whilst this growth indicates success, other

indicators may more usefully elucidate how successful UDOL has been pedagogically and in the eyes of its learners. This paper charts UDOLs journey from 2011 to the present day, using a practice orientated framework to evaluate the impact of interventions on the online student experience.

## **Background**

In order to understand why the University of Derby decided to create a specialist online learning department and how it has evolved from 2011 to the present day, it is first necessary to place it in the context of earlier developments. The year 2000 was a significant starting point for the evolution of eLearning, this coincided with the introduction of the social web 2.0. Throughout the decade, learning online became more available through low level compliance testing (eLearning), more distributed via a combination of books, eBooks and email type support (distance learning) and more social through Virtual Learning Environment (VLE) integrated platforms of learning with embedded social communication (online learning). During this decade eLearning enthusiastic academics created a plethora of models to conceptualise eLearning, this was not surprising in this era of innovation but it was difficult for educators to be discerning about which models to adopt and in particular, which models would be appropriate to Higher Education. JISC, the Joint Information Systems Committee, founded in 1993 was well placed to take up the challenge of reviewing and translating good practice for post 16 educators; one such output in 2004 was an overarching common framework to describe and model eLearning (Beetham, 2004). The aim of the first part of this project was to collate models of eLearning and organise them under six classification headings (Mayes & de Freitas, 2004). Using these classifications, we reviewed the eLearning landscape, adapting and enhancing our understanding to create a framework that was applicable to our own context. The resultant “Practice Based Framework for Modelling Online Learning” applied in UDOL, guided our overarching online learning strategy.

### ***A Practice Orientated Framework for Modelling Online Learning***

In 2004 the Joint Information Systems Committee (JISC) pedagogy strand reviewed a wide range of models and created a common framework so that post 16 educators could systematically determine their eLearning priorities. The framework provided examples of good practice under six classifications. Further analysis of these classifications revealed that they too could be organised into two main categories; those that were pedagogy focused and those that were education planning focused. We proceeded to organise the six classifications as follows:

- Pedagogic Classifications – Theoretical accounts, taxonomies and ontologies and practice models;
- Education Planning Classifications – Standards and specifications, organisational models and practical accounts.

Although our intentions had changed from eLearning to online learning by 2011, we believed that the classifications remained sound and provided a prototype that we could use to shape our online learning strategy. With the addition of horizon scanning we used this framework in

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conjunction with evidence and anecdotal accounts of good design from within the University as a starting point. Annually this common framework is reviewed and adapted to the changing landscape; adding and removing key drivers in each of the classifications. The model below illustrates our evolved framework for 2017, with horizon scanning sitting centrally, crossing the boundary between pedagogic and education planning.

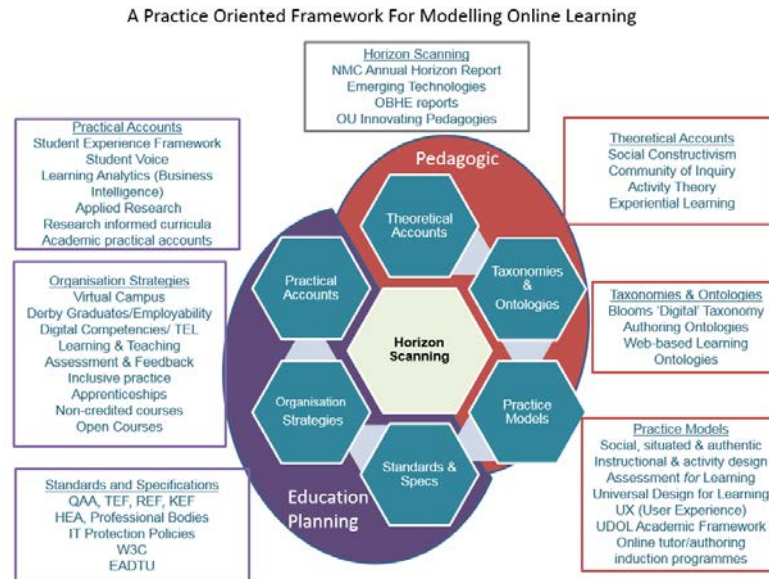


Figure 3. 2017 Practice Oriented Framework for Modelling Online Learning in UDOL (Shaw, 2017)

Recognising that it is not possible to discuss each model in the framework; this paper focuses on specific online learning models to reveal an alternative story of pedagogic success and student satisfaction.

## Horizon Scanning

### NMC Horizon Report

The New Media Consortium (NMC) Higher Education Horizon report, issued annually, is incredibly important to shaping our online environment. This ongoing research project is a collaborative effort between the NMC and the EDUCAUSE Learning Initiative (ELI) and seeks to identify emerging technologies; key trends, significant challenges and important developments likely to have an impact in the short, medium and long term. The application of “big picture themes” drive pedagogic and educational planning changes, thus this is central to both. The 2017 number one key theme resonates with our practice framework:

*“Advancing progressive learning approaches requires cultural transformation. Institutions must be structured in ways that promote the exchange of fresh ideas, identify successful models within and outside of the campus, and reward teaching innovation — with student success at the center.” (Beker et al, 2017; p.2)*

Other key short term trends in Higher Education technology adoption permeate our framework these being; collaborative learning, a growing focus on measuring learning, redesigning

learning spaces, improving digital literacy and rethinking the roles of educators. However, it is prudent to monitor the mid to long term future technology developments as well, in particular; next generation LMS, artificial intelligence and natural user interfaces. (Ibid, 2017)

## **Pedagogic Classifications**

### ***Theoretical Accounts***

#### *Community of Inquiry*

The Community of Inquiry model (CoI) is “a process of creating a deep and meaningful (collaborative-constructivist) learning experience through the development of three interdependent elements – social, cognitive and teaching presence” (Garrison et al, 1999). Moreover, the model does not attest to be a “catch all” for eLearning and Distance Learning modes of delivery as some critics suggest (Annand,2011), Garrison’s (2011) reply to such suggestions is that “In such contexts there is little reason or incentive to engage in collaborative inquiry”. Hence, this model specifically helps us to elevate the social element of online learning, whose importance could be undermined in other models, to the same standing as the teaching and cognitive elements. However, it is salient to note that the model is portrayed as a Venn diagram and it is the overlapping elements of social with teaching, social with cognitive and teaching with cognitive that provides the most informative insights into the online educational experience. A critical feature we introduced in our module design was the *Community space*, it is in this space that social learning takes place activated by good content design and engaging eTivities, influenced by Salmon (2002).

#### *Activity Theory*

Activity Theory (Engeström,1999), essentially an ergonomic framework for analysing human-computer interactions, provided a way of analysing the needs of learner when interacting with mediating artefacts, rules, the community and divisions of labour. This framework is useful at the strategic level to visualise usability. Designing an effective, efficient and satisfying online experience at the point of human-computer interaction, is not easy to visualise without traversing it as a student. Analysis of the end to end online University experience revealed that students had to access many separate IT tools; the University website, online application form, VLE, integrated teaching tools, finance, grade centre, library services etc., each having its own access point, look and feel. This journey was disjointed, creating an unnecessary and distracting cognitive load for students studying online. The upshot of this analysis was the creation of an online student access portal and later a virtual campus, both of these are discussed later.

### ***Taxonomies and Ontologies***

#### *Bloom’s Digital Taxonomy*

2011 signified a step change from distance learning (eLearning with customer support) to fully integrated online learning, with the ambition of creating a virtual campus. Staff, customer service and academics, that chose to work in the department would need to understand that they were entering a different environment; one which champions online social/teaching presence and social/cognitive presence. This brought with it new vocabulary, learning design

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ontologies and remastered taxonomies. The well-known Bloom's Taxonomy; revised by Anderson and Krathwohl (2001), was reified by Churches (2008), providing practical, digital examples for each of the psychological domains. This enabled us to talk about online learning using a well-understood taxonomy along with practical examples of digital practice.

### ***Practice Models***

#### *UDOL Academic Framework*

In 2011 it was clear that if we were to fully embrace the new vocabulary and practice approaches, we needed a framework that content authors and module teachers could easily comprehend. The UDOL Academic Framework clarified operating standards, stating in particular the immediacy of response (ideally within 24 to 48 hours) and the frequency of facilitated tutor engagement (5 times per week). It also embedded the Community of Inquiry principles, providing guidance for academics on the use of the social tools; discussion forums, blogs and wikis, and how they are best integrated into module design and assessment. This framework was approved by the University's Academic Board in 2013. Moreover, the UDOL Academic Framework recognises the additional user experience (UX) "ramp" to participating online; aging computers, poor internet quality, disabilities and poor technology skills all affect the individuals' ability to participate fully. This is compounded when learners encounter poor navigation and instructions, or perceive detachment from the tutor. In 2014 the negative effects of this were moderated by the introduction of a tutored online induction programme for all online teaching academics. This induction programme encourages good practice in online teaching and provides participants with an experience of being an online learner themselves.

#### *Instructional, Activity Design and User Experience*

Content authoring is closer to eLearning than online learning and is a whole paradigm away from classroom teaching, so it is unsurprising that traditional academics generally find it difficult to conceptualise. Perseverance, continuous dialog, practice examples and the recruitment of learning designers have all helped to create better online learning experiences. Activity Theory (Engeström, 1999), provided the framework for supportive dialogue to address usability in 2011, when the first module template was introduced. Every module from this point onwards would use the same menu nomenclature and house content in the same place, to create a consistent look and feel to all modules. Using elements of Behaviourism (consistent and repetitive tasks) this module template enables students to learn how to navigate within modules without having to learn a new process each time they move on.

#### *Universal Design for Learning*

The initial 2011 framework included Andragogy as a practice model, to reinforce the fact that we support adult learners. However, this model has continued to be challenged and as our learner demographic has changed, it has become less appropriate. Sandlin (2005) listed the critiques as: it is not value neutral, apolitical, inclusive of gender and class; it silences voices, ignores other ways of knowing and the relationship between self and society and it reproduces inequalities. These critiques could not be ignored and a more palatable way of visualising

inclusivity was embedded. Universal Design for Learning (UDL) is described as ‘including representation, expression, and engagement whilst reducing barriers with appropriate supports and challenges built into instruction’ (U.S. Department of Education, 2010). This accessible and socio-politically neutral approach is more applicable to the online environment. Reinforcing this whilst designing content and activities we avoided applying a UK-centric view. Nevertheless, it remains difficult to be inclusive of all contexts e.g. learners within specific countries. We address this by asking learners to reflect on their own contexts and discuss these with their peers, thus the students themselves help to expand all module participants’ world view.

## **Education Planning**

### ***Standards and Specifications***

#### *World Wide Web Consortium W3C*

The issue of educational online accessibility was little understood and underrepresented. Whilst the commercial world recognises and adheres to web-based accessibility standards, the application of these standards in educational settings was ignored even though, in our case the use of the Blackboard VLE is widespread across the University. Recognising that our statistics consistently show higher than average numbers of disabled students choose to study online, we presented an argument for making accessibility a high priority in our web-based materials design; showing that there are economic benefits to implementing accessibility in the early stages of learning design that benefit all students. A course that is planned to be inclusive of all people (including educators who may have a disability) is much more effective than courses that undergo a belated accessibility retrofit (Ellis, 2011). By 2012 the quality of content authoring and production was enhanced and transferred to the first Content Management System (CMS). Since then we have ensured that our technologies, websites, and content, are fully optimised for students with disabilities by applying a W3C WCAG 2.0 standards checklist (World Wide Web Consortium, 2008) as part of the content sign off process.

### ***Organisational Strategies***

#### *Virtual Campus*

In 2012 UDOL recruited its first Online Learner Advisors to specifically cater for the pastoral care of its students at a distance. This, a predominantly phone and email support service, helped to reduce the navigational cognitive load learners encountered in our environment. Later in 2012 a student portal was designed; a single entry point to access all the University’s services, news and information in one place, presented as user friendly tabs and icons. In 2013, we invited a student panel to help us to refresh the landing page, improving the user experience, look and feel of the environment. To complement the student portal, we had ambitions to make the online student experience equal to that of a campus student; ensuring that online students have access to all the same student services opportunities but accessed in a different way, a *virtual campus*. In 2014, our virtual campus began to take shape, the Student Wellbeing team initiated a Service Level Agreement which led to changes for the benefit of online learners. Student Wellbeing Service appointed two counsellors that have experience of counselling via the

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internet. Encouraged by the Student Wellbeing approach, other Student Services followed suit to reimagine their offer and to ensure that our virtual campus wasn't a deficit model. Skype appointments and a timetable of live interactive webinar sessions were introduced that included workshops with colleagues from the library, study skills, careers and student wellbeing. In 2015 with support from the careers department and based on graduate skills identified through research (Jackson et al, 2013), a free resource "Personal Development Planning for the Digital Age" was developed and integrated into every online module. This resource continues to support the development of graduate attributes and digital capabilities.

### *Open Courses*

In 2014, to increase the pace of innovation the University created a digital Innovation Hub. They were tasked with bringing University of Derby MOOCs to the masses. By 2015 thousands of learners engaged with the "Bridging the Dementia Divide" MOOC and MP Pauline Latham OBE hosted the University of Derby at an event at Westminster to raise awareness of digital solutions to combating Dementia. Learning from the MOOC's "testing in the wild" experience saw the introduction of digital badges for achieving micro-learning, Leach et al. (2016) demonstrated that digital badges enabled MOOC learners to stay motivated and on track, with higher than average course completions. These learnings have been integrated into our main programmes.

### **Practical Accounts**

#### *Student Voice*

The student voice provides a measure of our success in the eyes of our learners, analysis of student feedback surveys between 2014 and 2017 reveal that student satisfaction in teaching, course organisation, challenge and overall satisfaction has constantly achieved 75% or above (University of Derby, 2017). Yet, despite our extensive pedagogic and strategic approach there is still room for improvement, feedback surveys also indicate that some students sense a lack of community, some feel that they don't have the right opportunities to work with other learners and others don't feel comfortable participating or being "forced" to participate with others (ibid. 2017). Nevertheless, we have a robust online framework underpinning our activity and we have demonstrated that we can evolve, enhance, refine and reflect on our approaches, in 2017 the University took part in the Teaching Excellence Framework (TEF) rating pilot, of which online learning contributed to our TEF Gold award.

### **Conclusions and Recommendations**

In conclusion, what has been the impact on academic staff and their development? Anecdotal practical accounts have implied that there is a greater team spirit, openness of ideas, support of each other in the use of technology, innovation from cross disciplinary working, efficient work practices to manage the challenges, clarity, purpose and confidence in working in this relatively new paradigm. As the University starts to explore new more innovative platforms, these academics feel well placed to rise to new challenges. On the other hand, College academics not immersed in this activity feel relatively excluded and continue to be tested by this paradigm.

We will look to organisational strategies and research accounts to disseminate good practice more widely.

What has been the impact on student services? By engaging in a virtual campus these colleagues have learnt new skills that they have applied to the core provision. Now they offer out-of-hours remote appointments, live webinars and drop-in sessions for students that are unable to attend the main campus during daytime hours.

What has been the impact on our online students? We now have a more inclusive environment with their best interests at the centre of our practice. We recognised the ‘ramp’ to participation due to gender, location, language, technology and skills, and we need to continue to work harder at creating a community of staff and students. We appreciate that some will continue to need the additional pastoral support and that academic content designers and module teachers need to continue to improve module scaffolding to develop a deep sense of trust so that everyone feels comfortable and can benefit from the collaborative-constructivist environment and peer learning.

I would recommend investigating ways of strengthening the virtual campus and creating a greater sense of community, be this through new VLE designs or social interventions. Using practice models, I would recommend further analysis of how students engage in peer groups, this would also help us to better understand the group dynamic.

Further research investigation could be conducted using the CoI model to baseline the student experience fully, using the annual feedback surveys as a litmus test of their perceptions. Leading from this it is possible to test the impact of strategic educational planning and pedagogic changes in the future.

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