Do Worlds Collide? Revisiting Experiential Learning

Presentation to Association for Learning Technology Conference, Nottingham: "Something Rich and Strange – Making Sense of the Sea Change". 7 September 2010.

Martin Hall, Vice-Chancellor, University of Salford

I was recently in Dakar, where I had the privilege of meeting Abdoulaye Niang, now retired from the United Nations and leading a new development foundation in Bamako, Mali. His work, and passion, is sustainable farming and wealth creation in the Sahel, where Tambaroua Farms are experimenting with new agricultural technologies and crop breeds. His foundation offers leadership development and high-level training for entrepreneurs, government officials and development specialists. And, of course, a prime asset is the Foundation's web site, which sets out his objectives and resources, and connects Bamako with a specialized, global network of common interests.

Mali is one of the world's earliest centres of learning. Timbuktu has more than twenty libraries that have preserved more than 700 000 scholarly manuscripts, some of which date back to the thirteenth century. Over the last ten years, many of these have been digitally copied allowing new insights into Africa's history, thought and religion. And, again, the web has provided a global platform for research and teaching, widening our scope of comprehension.

Mali is emblematic of what I want to say today in several, intersecting, ways. It is now a cliché that we live in a connected world, and it comes as no surprise that Timbuktu and Bamako are in the Web. But Timbuktu has also long stood for the opposite of the West; somewhere arid and alien, lost in the Sahara, mysterious and threatening. Considerations that set to one side questions of how technology is used may perpetuate stereotypes of colliding worlds at the very same time that they make use of the digital connections that join us. For example, the 1990 film of Paul Bowles' novel, "The Sheltering Sky" is trailed on the Web as "a woman's dangerous and erotic journey": "the American artist couple Port and Kit Moresby travel aimlessly through Africa, searching for new experiences that could give sense to their relationship. But the flight to distant regions only leads both deeper into despair". The turning point for Kit comes as she becomes the sex slave of a nomadic Malian warrior. In ways such as these, the oldest stereotypes of the Dark Continent are extended and attenuated through globally available, high resolution digital media. What space is left for the recognition of Timbuktu as one of our oldest places of scholarship and learning?

A little more prosaically, this technocentric approach can seem self-limiting. For instance, the concept of the "digital native" (if there are indeed such people) is commonly used as if everyone born after 1980 deploys new technologies in characteristic ways. In reality, of course, digital natives can be no more than a sub-set of northern and western young adults. But some commentaries imply that the entire world of learning will fail unless we adapt to their needs. Policy becomes driven by marketing, by how to compete in recruiting students whom, we believe, want to express themselves on YouTube and live in Facebook. Marketing, and meeting the interests and needs of our students are, of course, important. But our work will become impoverished, and opportunities lost, if this becomes the extent of our horizon.

In putting knowledge first in exploring the "rich and strange" – the welcome theme of this conference – I will continue the dialogue opened last year at ALT and earlier this year at the JISC conference in London, and in particular the keynote delivered there by Martin Bean, Vice-Chancellor of the Open University. Martin presented higher education as standing on the threshold between the formal learning structures of the past and the informal, socially networked world of the present and future. Established, "institutionally accredited learning" has a "fixed granularity". New, "informal learning" is, in contrast, accredited by mentors and by the platforms on which it is delivered. This register of learning prospers in the "social cloud".

Martin conceptualized that as a contrast between the free-floating clouds of informal learning and the hard, granular stairs of institutional accreditation. This is a compelling. But is the world of informal learning really on a collision course with the institutional bastions of the traditional university. Informal learning may be gaining momentum like a dust cloud sweeping across the savannah towards Bamako. But what happens when these open, byte-sized bits of knowledge come up against the need for sequence and structure, for curricula that build systematically on prior understanding and insight? And what happens when affirmation by mentors and peers is not enough, and formal accreditation is required?

☼

The tendency to privilege technology is not surprising, and is in part a consequence of digital capacity to expand in an exponential fashion. As a result, the development of digital content is invariably slow and inherently unsatisfactory. This was the case back in the early 1970s, when we entered our data on punch cards and didn't have enough measurements to satisfy the hunger of our mainframes, and it's the case today, as our iPads remain impoverished by a dearth of dedicated aps. And it will soon be the case in Mali and other parts of Africa, as the regulatory constraints and unjustified profit taking that limit connectivity today invariably fall away. We need to ask the "content questions", so that we can best see how to use the ever-expanding digital capacity available to us.

In thinking about such issues, I always find Manuel Castells' monumental trilogy valuable. Writing some fifteen years ago, Castells identified the significance of the early 1990s, when the capacity for the digital transmission of significant quantities of data overcame the constraints of distance and allowed the "global flows", services and transactions that we now take for granted. Back then, it seemed to me that there was an inherent tension between the democratizing potential of the then-revolutionary Internet, and the tendency for ubiquitous communication to reinforce privilege and monolithic views of the world. But there was allure in the excitement of this new world which, back in 1998, was already linking us in new ways. This, I wrote "is epitomised in the cybercafe; by logging in at the Cafè de Net in dusty Uppington, deep in the Northern Cape, and visiting Les Lilas, a cybercafe on the outskirts of Niamey in Mali, where Ousmane Diallo welcomes virtual visitors with the image of a steaming espresso, fresh pastries and take-aways". The relentless advance of digital technology makes the memory of cybercafés seem quaint today. But the easy digital distribution of narratives enhanced by compelling sound and graphics still privileges monolithic representations. This, again, is why it is so important to put the examination and understanding of ways of knowing ahead of fascination with new technologies. And one of

the fortunate consequences of entering Castells' "Information Age" has been new thinking about the nature of knowledge.

While, of course, the inherent properties of knowledge have been discussed since at least Thomas Jefferson's observation that he could replicate the light from his candle by igniting the candles of many others, the immense capacity and speed of digital information and its formulations has changed the ways in which we live and work. Dominique Foray brings this all together so well in his "Economics of Knowledge". Of particular relevance here is the way in which he contrasts "tacit" and "codified" knowledge in our digital context. Making use of this distinction between tacit and codified knowledge helps in continuing along the road opened up by Martin Bean in his keynote at the JISC conference this last April.

Tacit knowledge is immediate, exploratory and loosely structured. While it has traditionally been associated with ways of learning such as apprenticeships, it is also a characteristic of advanced scientific laboratories, workshops and conferences, where new ideas are exchanged, modified, adopted and appropriated, or abandoned. Codified knowledge is, in contrast, structured to the point at which it can be exchanged easily through mans of mass communication. Its first enabling technology was the printing press, and its product, the book. The defining technology of the Information Age is the Internet, and this has enabled a massive expansion of codified knowledge through digital modes of communication.

Universities are the classic domain of structured, formalized and codified knowledge. Our fields of knowledge are organized and underpinned by disciplines. And because we use this term as an everyday word, we also adopt its double, and inherently contradictory, meanings. Our disciplines open up new ways of knowing while setting often-strict rules for the ways in which we allow ourselves and others to proceed in knowledge-making.

In contrast, social networking exemplifies tacit knowledge-making. Academics recognized this from the very first days of e-mail, and we tend to forget that the first ubiquitous e-mail systems flourished as a means of immediate and informal communication between people with common research interests, scattered across diverse locations. Subsequent social networking protocols and platforms have built on this momentum, continuing the tradition of informality and immediacy. In essence, social networking has all the characteristics of earlier forms of tacit knowledge-making, but without the constraint of face-to-face contact in real time and place. Given this, it is not surprising that Facebook is by no means the exclusive terrain of the "digital native"; quite "conventional" research teams find social networking platforms a valuable way of formulating laboratory-type and tacit ways of knowing as the early stage of inquiry, ahead of formal codification through publication and dissemination.

Looked at in this way, the technologies of the Information Age have changed the nature of, and relationship between, codified and tacit knowledge. The potential of codified knowledge – including ways of knowing that are disciplined and institutionalized – has been massively expanded by increased in digital storage capacity, reach and speed and computing power. Similarly, the significance of tacit knowledge has been extended by ubiquitous social networking platforms, starting and continuing with e-mail, and now including Facebook, Second Life, YouTube, Twitter and other platforms. Interoperability with mobile devices is further transforming these platforms by liberating the user from the technology of the desk and chair.

☼

In his presentation of the challenges and opportunities that these new technologies offer, Martin Bean associates Open Content – of which the Open University is an exemplar – with social networking. I think this is wrong. While the OU's commendable decision to make its content freely available has revolutionized access, its knowledge formats are conservative and structured. Open Content, whether at the Open University, MIT or elsewhere, falls on the codified and institutionalized side of the knowledge continuum. Open Content, as provided by contemporary universities, is part of the Staircase rather than the Cloud.

Similarly, Facebook is not, in itself, inherently "tacit". A good many organizations use Facebook as a platform for formal codified knowledge although, of course by far the most prevalent use is for social networking via the News Feed. And I've been asked to officiate at a graduation ceremony in Second Life, which is about as conventional as it gets (as long as my avatar can be dressed suitably). Again, my point is that it's not the technology that is driving the changes with which we are concerned. It is rather the imperatives of knowledge – of content - that are leading the interaction with the opportunities opened up by technology.

Seen this way, a current and coming challenge for universities is how to navigate this "new continuum" between tacit and codified knowledge, in which all forms of knowledge-making are interacting with new digital technologies – content, chasing the expansion of capacity. It's not just the clouds that are virtual; the staircases are now digital as well, as Open Content reproduces the established structures of the disciplines and their curricula.

Here, again, the best way forward is to put aside the lure of new technology and to go to the underlying issues. And these seem to me to be essentially pedagogic – to be about the ways we learn best. Given the juxtaposition of, and interdependency between, tacit and informal, and structured and codified knowledge that I've been pursuing, revisiting the concepts of experiential learning seems to hold some promise.

David Kolb's 1984 book brought together diverse traditions of education, from John Dewey to Paolo Freire, and has perpetuated discussions about practices and their outcomes that continue in all sorts of ways. What interests me here is the idea of the "reflective space" that is at the core of Kolb's portrayal of learning cycles. In this formulation, we move from the dense everyday praxis of being in the world and into some form of place apart, where we reflect, share, compare and theorize. We then return to the "thick experience" of context, hopefully with enhanced self-awareness and improved ability to act on our part of the world. If successful, our completion of the experiential learning cycle will have given us an incremental increase in awareness and analytical ability. Used in the context of a curriculum, such experiential learning will have succeeded in disseminating knowledge and transforming the individual.

Let me give an example from my own work. When I was at the University of Cape Town, one of my responsibilities was institutional transformation. Inevitably, given South Africa's history, this involved perceptions about race. How could we set up a learning programme for staff that tackled white people's perceptions of black people, and black people's ideas about white people, given the searing and continuing legacies of apartheid? Dorrian Aiken, Nazeema Mohamed and I designed and implemented a programme called Khuluma – to speak out. We brought together groups of twenty people, half of them black and half white, for three full days. Participants brought their own histories, perceptions and prejudices into a

shared "space" in which they also encountered generalized perceptions of how stereotyping works psychologically, and the opportunity discuss the historical and political circumstances that had resulted in legislated racial discrimination. By the end of the Khuluma series, more than 600 staff had participated. Some of course were unmoved, others were alienated and a few did not stay the full three days. But a significant number regarded the learning experience as transformative, and continued to meet as a group well after the formal sessions, forming new informal, networks in the workplace. For me, this is a classic example of the experiential learning cycle at work, moving from the world of tacit knowledge, through a more formal and structured learning environment, with its own curriculum, and then back into the world of everyday learning.

How does the concept and practice of experiential learning help with approaches to teaching and learning in our digital world? Clearly, new technologies strengthen both parts of the experiential learning cycle. Evidently, digital platforms immensely extend the scope of formal delivery. The Open University has pioneered this. In all of our universities, leading-edge innovators have been experimenting with digital media for more than two decades, making use of customized web sites, digital video and platforms such as Moodle, Sakai and Blackboard.

So what can be new? Coupled with codified knowledge in the embracing concept of the experiential learning cycle, new technologies can transform tacit, informal learning as well. Social networking frees tacit knowledge-making from the constraints of face-to-face contact although, of course, new real-time video and location-specific applications on mobile devices are allowing a fully tacit, virtual experience. There can be little doubt that our students are already leading-edge innovators in this, using social networking to collaborate, organize and deliver what is required of them within the requirements of their formal and structured environment.

And it is in the connection of these two aspects of knowledge-making, within the pedagogic framework of experiential learning, that it seems to me that a key opportunity lies. All too often, we still see informal and formal learning as inherently opposed to one other. Despite the fact that we may have deployed sophisticated digital platforms to enhance our formal curricula, we see social networking as a distraction and a danger. Should students be allowed to spend time on social network sites in the Library? Should laptops be disallowed in class to prevent the diversion of Facebook, or worse? Perhaps, though, we should turn these questions around. If it is accepted that there is some form of virtuous circle that links tacit and formal knowledge-making, and that both forms of knowing are enhanced and enabled by digital technologies, then we should actively seek ways of connecting social networking and formal delivery.

☼

So this is the question: what are the transformative opportunities in the virtualization of the full spectrum of knowledge-making, in experiential learning situations where everyday, tacit knowledge is massively extended by social networking, and reflective, codified knowledge is revolutionized by digital resources and platforms? How can educational opportunities be extended when the barriers of physical location cease to constrain, and the places where learning takes place are not limited? What happens when we see formal learning and social networking as complementary and reinforcing, rather than in collision?

It would be particularly valuable, at this time of change, to have more case studies of good practice. Such cases would help us make critical choices when new opportunities are matched by diminishing resources. The potential in exemplars of good practice became clear to me recently when reviewing our PhD completion rates at the University of Salford. One programme in particular stood out, offered by our distinguished School of the Built Environment. Both in terms of student retention and time to completion of dissertation, the MERIT programme is exceptional. And while it requires the time-honoured doctoral dissertation, it turns out that it is offered entirely in a virtual environment. Students are scattered across several continents, and may never meet each other, or their Salford supervisor, face-to-face. Each is supported by a co-supervisor in their home country, and the class convenes in carefully structured, real-time meetings using multi-site video conferencing, IP audio, texting and file-sharing. In addition, students and supervisors interact informally and freely in social networking mode.

The reason, I think, that MERIT is so successful is that the challenge of doing something as audacious as offering a doctoral programme on-line has spurred the programme team to give far more thought and attention to connecting with their widely dispersed class, and to drawing the rich experience of each student into the shared learning space. This combination of structure and rich, informal contacts and exchanges has resulted in improved quality in relation to all our PhD programmes, whether these are offered in a seminar room in our part of Greater Manchester, or from a virtual platform.

Case studies such as the MERIT programme take us closer to the truly transformative opportunities in the collision of the worlds of the conventional university curriculum and the virtualization of knowledge. Manuel Castells' key point was that, by the early 1990s, digital technologies were permitting "global flows" of information to a level where the constraints of distance could be transcended. It has taken a further two decades to get to the point where bandwidth, transmission speeds, data storage and interoperability to permit, in a practical way, the virtual life that Neil Stephenson imagined back in 1992 – in his novel Snowcrash – where he had our avatars living in digital streets. But, now, we are indeed in a position to draw widely diverse experiences and perceptions into the formal structures that enable learning.

What is beyond the current technology – beyond the iPhone, the tussle between Apple and Kindle, beyond whether we love or hate Facebook, texting as a new dialect and the customs of Digital Natives? Unless one is a gifted science fiction writer, it's probably foolish to speculate. Perhaps, though, it is more a question of where to look. One place I would watch closely is Bamako.

This is what M. Niang has in mind. By investing in nanotechnologies, he is able to counter the Harmattan winds and generate solar power. This will enable him to increase papaya yields and work with local entrepreneurs, generate agricultural surplus and enhance Mali's food exports. By making use of his career expertise as a senior United Nations official, he intends to use his Foundation as a platform for demonstrating new economic models to reduce West Africa's economic dependency on commodities and imports. He will disseminate knowledge of advanced agricultural techniques, economic models and policy considerations through education and training, offered in partnership with educational institutions in neighbouring states. This combination of knowledge creation and dissemination will rest on a platform of interlinked web sites, and will be powered by

informal knowledge sharing enabled by digital devices – the ubiquitous technology in parts of the world where distances are vast and roads treacherous. In turn this West African digital network – surely as important an asset as the physical plant at Tambaroua Farms – will connect with the diaspora, the widely-dispersed network of West African experts currently living and working in the West and North. If M. Niang is successful in his plans, the work of his Foundation will be aligned with parallel, digitally enabled projects in other parts of the world. He has already built connections with Israel, where agricultural conditions and opportunities are broadly similar.

Now imagine the work of the Niang Abdoulaye Foundation as part of a consortium offering a Masters level qualification in sustainable agriculture. Offered on a current, web-based platform such as Elluminate (which, like many others, we use at Salford), such a course could bring together a class working in sustainable agriculture in Africa, Latin America, Israel and Asia. The formal curriculum would bring together materials from the increasing number of Open Access Repositories across the world, countering the dearth of locally-available library collections, and would provide quality assurance for the course qualification. Social networking tools – whether e-mail or a Facebook news feed – would contribute the richness of tacit knowledge across a wide range of local experience. Video clips from standard cell phones would be uploaded to the course platform, whether as part of an assignment, or to make a point in an argument. Dissertations by learners on the course would be placed in an Open Repository, building up a library of case studies of good practice and source materials for comparative research.

The newness in Abdoulaye Niang's trajectory is not, I think, in the way that he conceptualizes how knowledge is created and disseminated. This is the classic experiential learning of Dewey, Freire and Kolb; the well-tried and successful way of working with a class of Masters-level students, and the use of research dissertations as the building blocks of new research. What is new, I believe, is the reach and scope of the projected learning experience; the use of both structured and informal digital resources to overcome the limitations of physical space. By bringing together such diverse local knowledge in a virtual classroom, formal academic programmes such as these open new dimensions of understanding. The sea change that is the focus of this conference should not be seen as the old world of the university in collision with the new world of social networking. Rather than clouds circumnavigating staircases, a spiral of reinforcing currents is gaining in momentum.

Sources

Bean, Martin. 2010. "The Learning Journey: From Formal to Informal". JISC Conference, 13 April 2010. Available at http://www.jisc.ac.uk/events/2010/04/jisc10/keynotes.aspx

Bourdieu, P. 1996. *The State Nobility: Elite Schools in the Field of Power*. Cambridge, Polity Press.

Castells, M. 1996. *The Information Age: Economy, Society and Culture. Volume 1. The Rise of the Network Society*. Oxford, Blackwell.

Castells, M. 1997. *The Information Age: Economy, Society and Culture. Volume 2. The Power of Identity.* Oxford, Blackwell.

Castells, M. 1998. *The Information Age: Economy, Society and Culture. Volume 3. End of Millennium*. Oxford, Blackwell.

Foray, D. 2004. *Economics of Knowledge*. Cambridge, MIT Press.

Hall, Martin. 1998 Africa Connected. *First Monday* 3(11). Available at http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/rt/printerFriendly/627/548

Hall, Martin, Dorrian Aiken and Nazeema Mohamed. 2009. "Institutional Culture and Diversity: Engagement and Dialogue in a South African University". In *The Next Twenty Five Years? Affirmative Action and Higher Education in the United States and South Africa.* Edited by Martin Hall, Marvin Krislov and David L. Featherman. University of Michigan Press.

Kolb, D. 1984. *Experiential Learning. Experience as the Source of Learning and Development*. Englewood Cliffs, Prentice Hall.

Niang Abdoulaye Foundation web site: www.niangfoundaton.org

Sheltering Sky: http://www.imdb.com/title/tt0100594/

Stephenson, N. 1992. *Snow Crash*. New York, Bantam Books.

Timbuktu Educational Foundation web site: www.timbuktufoundation.org