

A REAL REVOLUTION IN MILITARY AFFAIRS: ONLINE CONTINUOUS LEARNING FOR THE OPERATIONAL WAR-FIGHTER

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Mahomet cald the Hill to come to him. And when the Hill stood still, he was neuer a whit abashed, but said; If the Hill will not come to Mahomet, Mahomet wil go to the hil.

Francis Bacon, Essay 12 'Of Boldness' (1625)

This paper begins from the premise that continuous change is the new norm of the strategic and operational environment in which military activities take place. That being the case the most vital war-winning qualities to develop in our military forces are adaptability and flexibility. These are a function of mindsets and skill sets not weapons suites and materiel. Therefore, the first step to addressing the maladaptation of our armed forces, whose institutional DNA is rooted in the wars of the Industrial Age, to the needs of the wars of the Information Age is the creation of an appropriate training and educational regime. But this task is complicated by the hard facts that, first, training and education must be continuous throughout the career at a time when, second, operational tempo is such that sending officers and men to school for extended periods, which was *never* easy to manage, is even more difficult. Solution: if the soldier cannot go to the school then the school must go to the soldier.

If providers of training and education to the military were able to achieve such a transformation of the way in which they operate that would indeed be revolutionary. As this paper will show, not only is it possible, it is in fact already a reality on a small scale for 58 serving officers (of 112 current students), 47 of whom are British army, 3 RAF, 3 US, 3 Danes, 1 Swede, 1 Canadian, and 1 Australian navy commander, all students on the on-line *MA War in the Modern World* programme offered by the renowned Department of War Studies at King's College London. This programme provides the empirical basis for much of this paper which consists of four parts:

Part I The Landscape of 21st Century Conflict: Why is change in the military training and education system necessary in the first place?

Part II 'Beyond the Cloister', Civilian Education for Military Personnel: what exactly are the problems to be solved?

Part III Redefining the Cloister, Department of War Studies, King's College London's MA War in the Modern World Programme: How has this programme

attempted the entirely on-line delivery of an internationally recognized MA in a manner which is flexible enough to accommodate high operational tempo without compromise of academic standards?

Part IV: The Future of the On-Line Cloister: What, if any, are the natural limits of on-line education?

Finally, the paper will conclude with a reflection on how the military educational and training establishment might better leverage the intellectual resources of the civilian educational sector for the purposes of creating soldiers equipped with the mindsets and skill sets they need to prevail in the 'Long War'. The paper seeks to contribute equally to the debate among educators about on-line pedagogy and to the debate in the defence analytical community concerning the appropriate responses to the challenge of future wars.

The Landscape of 21st Century Conflict

Over the last decade and a half, without doubt the most popular discussion amongst defence analysts, practitioners, and defence policy-makers has been the idea of a Revolution in Military Affairs (RMA). The basic idea of the RMA is well-known and easily summarized. In a nutshell:

Knowledge is power.

The RMA, however, has in more recent times lost much of its lustre for obvious reasons. The superbly trained and equipped army which so adroitly ended the regime of the Taliban in Afghanistan and Saddam Hussein in Iraq found itself with feet of clay in the aftermath of 'major combat operations', struggling to defeat a determined, globally-linked, complex insurgency while nation-building at the same time (some might say that the two tasks actually amount to the same thing). The trouble is that few of the challenges in these theatres of operation proved amenable to solution by technology—the thing which underpinned RMA thinking; indeed our tendency to want to believe that there must be technological solutions to our problems has proven to be the costliest and most self-defeating mental habit of Western armed forces since the cult of the offensive in the First World War led to the decimation of division after division in fruitless, blundering charges across the bare patch of wire-crossed, fire-swept no-man's land between the trenches of the belligerents. The dominant concept of the RMA was essentially two-fold:

- 'Never put a man where you can put a bullet.' Translation: firepower replaces manpower.
- Technology, specifically computing and microelectronics, can 'lift the fog of war' and eliminate (or at least drastically reduce) the drag of friction on one's own forces. Translation: The unpredictable and chancy *art* of command can be replaced, at least on your side, by the predictable scientific surety of administrative planning.

The upshot of it was that forces which were participating more fully in the RMA were supposed to find it increasingly easier and cheaper to defeat forces that were not. Simply put, the wars of the future would be fought on our terms, which is to say in a way similar to playing chess against blind opponents. Clearly, this has not proved to be the case; otherwise we would not now, six years after September 11, be talking about a 'Long War' (and, it must be added, be so apprehensive about how we are doing thus far). It turns out that we are stuck fighting the other guy's kind of war. Call it what you will: 'Complex Insurgency', 'Global Insurgency', 'Complex, Irregular Warfare', 'Hybrid Warfare', 'Three (or Four) Block Warfare, or 'War Amongst the People'.¹ However things turn out in Iraq over the coming months and years, we are faced with a stark choice:

- raise the level of our game in irregular warfare; or,
- avoid it like the plague.

This author takes the view that avoidance of these conflicts is not a workable strategy and therefore they should be embraced;² other scholars disagree;³ while still others such as Steve Metz and Frank Hoffman, have argues a middle position, 'the United States needs the military capability to remove hostile regimes but not necessarily the capability to occupy and reengineer them.'⁴

Still, it is hard to rid the mind of the seductive concept of the RMA for it is essentially true that knowledge is power—just not in the way RMA enthusiasts envisaged it. It turns out that we latched on to a vision of the future that played to our strengths and which has proven erroneous. The enemy is not, in fact, an inert 'target' waiting to be 'negated' as the 'logical model of network-centric warfare' portrayed it;⁵ on the contrary, he is a living, thinking opponent with a trick or two of his own up his sleeve.

But something revolutionary has happened to warfare, I would submit. Basically, the future happened in the form of the emergence of Hybrid Warfare while we were looking in the other direction and now we are playing catch up. As one airman put it in

¹ The terms are approximately equivalent. See, respectively: John Mackinlay, *Defeating Complex Insurgency: Beyond Iraq and Afghanistan*, London: RUSI, Whitehall Paper No. 64, (2005); David J. Kilcullen, "Countering Global Insurgency," *Journal of Strategic Studies*, Vol. 28, No. 4 (August 2005), pp. 597-617; Frank Hoffman, 'Complex Irregular Warfare: The Next Revolution in Military Affairs', *Orbis*, No. 50 (Summer 2006), pp. 395-411; on 3-Block War, Gen. Charles C. Krulak, 'The Strategic Corporal: Leadership in the Three Block War', *Marines Magazine* (January 1999), http://www.au.af.mil/au/awc/awcgate/usmc/strategic_corporal.htm; and on 4-Block War, James N. Mattis and Frank Hoffman, 'Future Warfare: The Rise in Hybrid Wars,' *Proceedings* (November 2005), pp. 18-19; and Rupert Smith, *The Utility of Force*, (London: Allen Lane, 2005).

² See David Betz, 'Redesigning Land Forces for Wars Amongst the People', *Journal of Contemporary Security Policy*, Vol. 28, Iss. 1 (August 2007), pp. 221-243.

³ For instance, Jeffrey Record, 'The American Way of War: Cultural Barriers to Successful Counterinsurgency', *Cato Institute Policy Analysis*, No 577, 1 Sep. 2006, .

⁴ Steve Metz and Frank Hoffman, *Restructuring America's Ground Forces: Better, Not Bigger*, The Stanley Foundation, Policy Analysis Brief, 1 September 2007, p. 6.

⁵ See the graphic entitled 'Logical Model of Network-Centric Warfare' in Arthur K. Cebrowski and John J. Garstka, 'Network-Centric Warfare: Its Origin and Future', *Proceedings* (January 1998).

the Marine Corps Gazette ‘Not to put too fine a point on it but... the Flintstones are adapting faster than the Jetsons.’⁶

The point of this paper is not, however, to debate or discuss the various conceptions of future warfare. For what it is worth, the author considers that the views of those who hold a view of the future of warfare as being increasingly irregular are essentially correct. Rather the main point on which all should agree is that the landscape of 21st century conflict is shaping up to be an order of magnitude more complex than the past. Waves of change are crashing one upon the other, making constant change the new norm, and therefore a capacity for constant adaptation the *sine qua non* of military effectiveness, which makes all the more alarming the wry observation of the perspicacious airman quoted above: for all the talk of ‘learning organizations’ and ‘flattened hierarchies’ Western armies are still too much characterized by strong hierarchies (formal and informal) and top-down thinking, which once rendered them strong but now makes them unsupple and brittle.

The other side is less burdened by inertia with regards to its structure and organization. One might disagree with Bruce Berkowitz’s argument that Osama bin Laden will be regarded as one of history’s ‘great commanders’,⁷ while still recognizing that in form and structure of Al Qaeda is more clearly a product of its time than our state-centred armed forces which are a product of an Industrial Age which has in some senses passed. To make matters worse, not only is the degree of change required to adapt our forces to the new strategic and operational environment very large, it must also be accomplished at a time when the mismatch of operational demands and available resources has never been greater. To use Frank Hoffman’s arresting metaphor, the task before us is akin to changing the tires on a moving car—while being shot at.⁸

‘Beyond the Cloister’, Civilian Education for Military Personnel

There is an emerging consensus among influential military leaders on both sides of the Atlantic that success in the ‘Long War’ requires mainstreaming in the regular armed forces mindsets and skill sets which have traditionally been seen as tertiary or irrelevant to the war-fighter. These include:

- Civil-military and stability operations;
- Information operations;
- Unconventional warfare and counterinsurgency;
- Joint, inter-agency and coalition operations;
- Cultural and language skills and regional expertise.

⁶ Capt John Pena, ‘Under the Umbrella’, *Marine Corps Gazette* (May 2007), p. 22.

⁷ See Bruce Berkowitz, *The New Face of War: How War will be Fought in the 21st Century* (NY: The Free Press 2003), p. 17. I take the view that bin Laden’s mistakes have been too numerous and great to merit such description. Moreover, his innovations were more stumbled upon than preconceived. In any case, the verdict of history will be reckoned only decades hence which, in the meanwhile, renders the debate into a coffee-table chat amongst enthusiasts.

⁸ Frank Hoffman, *Changing Tires on the Fly: The Marines and Post-Conflict Stability Ops*, Foreign Policy Research Institute (September 2006).

Army general David Petraeus stands out as a particularly prominent proponent of this line of reasoning as evidenced by a series of recent articles, most notably in the *American Interest* magazine article 'Beyond the Cloister' in which he made a strong case for officers attending civilian graduate schools.⁹ The article might better have been titled 'From one cloister to another' for of course the term cloister is as apt a term for the academic milieu of quiet contemplation as it is for an enclosed order of monks, nuns, or soldiers. The rejoinder by the ever perceptive and reliably caustic Ralph Peters differed essentially on the details. Said Peters:

The basic question regarding university and postgraduate education for military officers is, 'How much is enough?' Certainly, every officer should have a 4-year degree, without which he or she would not be sufficiently attuned to the broader frequencies of American society. For many officers a Masters degree or equivalent, makes sense, as well. But a PhD is deadly...¹⁰

In short, both strong advocates and strong critics agree that a Masters degree is a desirable and useful qualification for a military officer. Moreover, it is practically unthinkable that Peters would disagree with Petraeus's essential proposition that 'The most powerful tool any soldier carries is not his weapon but his mind.'¹¹ His own career as a soldier, novelist, essayist and pundit epitomizes the thinking soldier; rather, he argues that while education is a good thing for an officer, a university is not required for that purpose; indeed, on the logic of the old dictum 'those who can do, those who can't teach', universities are as likely to fill the heads of officers with failed and useless theories as anything else. This is a charge worth considering.

There is obvious merit to inculcating in officers an ethos of 'deeds and not words' for the former is always vital in military endeavours while the latter may be important or not. But Peters is wrong because he falls into the classic logical fallacy of *ab abusu ad usum non valet consequentia* (Consequences of abuse do not apply to general use): there are people out there who have not struck the right balance between theory and practice; it does not follow, however, that no one should theorize.¹²

In our experience most military students strike the balance between theory and practice appropriately. They see great value in what they do academically but none draws anything like a straight line between the study of diverse aspects of contemporary war and the international system and the achievement of victory in whatever battles they are fighting. There is a connection, but it is somewhat ineffable, as our students have described:

Student A: [The course helps make me]... a more effective thinker, more rounded, able to add historical context, but not sure about a better soldier. It has been interesting coming over to work in Baghdad at a strategic assessments level having just done [an academic course on the evolution of

⁹ David Petraeus, 'Beyond the Cloister', *The American Interest* (July/August 2007), pp. 16-20.

¹⁰ Ralph Peters, 'Learning to Lose', *The American Interest* (July/August 2007), pp. 24-25.

¹¹ Petraeus, p. 16.

¹² Thanks to Christopher Ankersen for this observation.

strategic thinking]. [It is] All very relevant and just gives you a good feel for historical trends and an extra awareness of the implications of what we are up to. I'd say that this was more academic than necessarily practically useful to be a better soldier. Perhaps *how to think not what to think* is a good summary?

Student B: [The course] Most definitely [makes me a better soldier] although on the *soldier* and not the *warrior* level. A greater knowledge of why wars take place and why certain groups are enemies at certain times makes for a better soldier by making him more rounded and giving a greater understanding as to why his role exists. It also demonstrates why some wars end and some don't—very important!

Student C: I have spent too many years knowing too little about recent world history. [The course] although concentrating on war, covers every period from WW2 and therefore touches on the political and social aspects of major events to give a very rounded setting of the post war decades. It is invaluable in this regard.

To return to the desirable skill sets bulleted above, what these have in common from a pedagogical perspective is that they are, first, not strictly military (or indeed principally military in most instances), which would suggest that they are best learned outside of a uniform military institution and/or in mixed military/civilian cohorts. Second, they are complex skills which rely on the synthesis of knowledge across fields, which would suggest that they are not learned best in ad hoc short courses; rather, deep knowledge comes from an integrated programme of study including aspects of political and military history, strategy, international relations, area studies and other disciplines, with clear internal skill progression and structure.

All of this would be fine in a perfect world where the nation could afford to spare large numbers of its soldiers for a year or two from straight soldiering in what would effectively be a programme of academic study at an advanced level. Of course this is not the case. In the real world for the foreseeable future military life is likely to be locked into a pattern of preparing to deploy, deployed, or recovering from deployment with few opportunities for extended breaks. In effect, while civilian graduate education is a broadly desirable quality for soldiers to have, practical limitations on access to it make it the preserve of a lucky few. This is the overarching problem.

If it is accepted that the solution to the overarching problem is, as this paper suggests, to bring the school to the student, there follows from that a series of interlinked pedagogical and practical conundrums to be worked through. These can be usefully aggregated into problem areas as follows:

Problem area	Constituent elements
Experience of Study/Feeling of 'Student-ness'	Contact with academic staff
	Interaction with other students
	Sense of immersion in academia
Richness of teaching materials	Tendency to didacticism in distance learning
	Intellectual challenge

Redefining the Cloister, Department of War Studies, King's College London's MA War in the Modern World Programme

By the early 2000s the Department of War Studies, King's College London had long recognized that its graduate degree offerings, particularly its flagship *MA in War Studies*, while highly attractive internationally to mid-career professionals in cognate fields (military, government, media, NGOs) were actually taken-up by such students at a relatively low rate. The reason for this is that the opportunity costs, both in time and money, and personal as well as professional, for high-achieving mid-career professionals of leaving their work for a year to live in central London are simply too great for most individuals and/or their employers to contemplate.

The entirely on-line *MA War in the Modern World* programme was conceived as a way to reach this market. It is now in its third year of delivering an internationally reputed advanced degree to 120+ students, about half of whom are serving military officers (mostly British Army), all over the world.

When my colleagues and I were tasked with building this programme we had no specific training, or major interest it should be admitted, in pedagogy of any kind, let alone the pedagogy on on-line learning or educational technology. We are subject specialists on diverse aspects of the study of contemporary warfare. What lay before us was *terra incognita*. In hindsight, paradoxically, this was a good place to start for knowing nothing we had fewer debilitating preconceptions. This is not meant as a slight on pedagogues or technologists; subsequently we learned much from the pedagogical literature and we have leaned heavily on the advice of some superb educational technologists. But it was, and still is, a revolutionary time, which is exactly when amateurs and neophytes can make a real mark on practice.

We started in good military fashion by defining our objective in concrete terms and then began connecting desired ends with means as seemed logical. In this case our idealized objective was 'Manco', a high-achieving, English-speaking Peruvian llama herder on an Andean mountain-top with an internet-connected laptop—in other words a student for whom the pedagogical challenges of teaching were entirely practical. He could not leave his flock and so it was our job to figure out from first principles, such as we understood them, how to deliver an MA to him without getting fired for compromising the hard-won academic reputation of the Department of War Studies.

Knowing nothing at the beginning of how others had tried something similar proved advantageous. The other on-line programmes which we looked to for inspiration seemed to us to fall into two types: traditional distance-learning programmes which had migrated to the Web for the obvious reason that it had become the communications tool nonpareil; or bespoke business and MBA programmes that blended on-line and residential elements. The latter was not a route open to us, as a key parameter of delivery was that it be entirely on-line. The former seemed to have weaknesses which seemed to us unnecessary.

It is a common misapprehension that on-line education is a branch of distance education. True, distance education has moved on-line in a major way, but as a result

traditional distance learning, with all its disadvantages, ended up written into the DNA of the some on-line programmes for no good reason. For all intents and purposes, the distance learning roots of on-line education is junk DNA—non-functional at best and a source of lethal deformities at worst. That is because on-line education is not a branch of distance education at all, it is a qualitatively different tree with tremendous strengths (and weaknesses) of its own. To sum up this discussion of starting conditions before moving on to specifics three general points should be made:

First, on-line makes distance *irrelevant*. It is a mode of teaching which is appropriate for students whether they are far away or campus-based.¹³ The mode of instruction, the medium of communication, is different but not less effective than face-to-face (in some ways it is already more effective). That is why more and more university departments and other education and training institutions see ‘blending’ on-line and face-to-face teaching as the cutting edge of best practice.¹⁴

Second, the widely-perceived advantage of face-to-face over on-line is impermanent: reality is still the ultimate bandwidth, but only for the time being.¹⁵ Some of the things we are doing now on-line seemed ambitious to the point of unfeasibility five years ago; five years from now where will we be? By contrast, on-line teaching will always have the advantages asynchronicity, flexibility and portability because face-to-face teaching is by definition real-time, one time and impermanent. To quote one of our students:

You can take it [the course] with you. I am tapping this questionnaire out in Baghdad having started the course in London and I hope to finish this when I’ll be in Company Command (wherever). Flexibility.

Third, the advantages of on-line programmes are less likely to realized when they are crudely adapted from existing face-to-face programmes. Somehow what is filtered out in the translation process is the best of both modes leaving behind the worst with the result a didactic, anomic and rigid student morale destroyer. Always start from scratch!

Fourth, remember the Internet does not create time out of nowhere. The flexibility of on-line learning lies in the fact that it can be accessed from anywhere at any time. But students must still invest a great deal of time and effort into it. Military commanders with subordinates in on-line academic programmes must particularly take note of this. Our experience thus far has been very much that the difference between a contented, well-performing student and a discontented, under-performing student comes down to whether or not the student’s boss recognizes the additional demands on their time. For example, said another student:

¹³ Several of our students live and work in or near central London where the university is based. One successful lawyer in the financial district is simply too busy to attend daytime lectures and so satisfying his intellectual interest in contemporary warfare and international relations on-line in his own time is preferable.

¹⁴ Caroline Gray, ‘Blended Learning, Why Everything Old is New Again, but Better’, *Learning Circuits* (March 2006).

¹⁵ For a view of the future, see Predictions for 2006: E-Learning Experts Map the Road Ahead, *eLearn Magazine*, <http://elearnmag.org/subpage.cfm?section=articles&article=31-1>

Face-to-face learning, especially when sponsored by the military means that you are away from your day-to-day work. This means you can better concentrate on your studies. In the modern ever busy armed forces you do not have the time to dedicate to your job and concentrate on a modular masters which requires a significant amount of base reading even before you try to dig in and add value.

The above is not a typical response; but it is not a surprising one. As a matter of policy any army which encourages or requires officers (explicitly or implicitly through the dictates of the promotion system) to obtain graduate qualifications must provide them the appropriate time; to do otherwise causes demoralization and added stress, as though there were not enough already. The negative view of the student above is balanced by others. For example:

The course has been excellent to date and I have absolutely no regrets about my choice to do it...It has been hard work with tight deadlines for formal submissions etc and my SO1 has not been especially supportive (not Army). Nevertheless, I am entirely happy about having done it and would recommend it to anybody... At the end of the day, in a matter of months I will have a Masters (my first academic qualification ever), whereas those who either did not apply or bailed out will not. This suits me because the purpose of academic qualification is that it serves as an indicator of performance-potential relative to others. We are where we are and the situation is unlikely to change in the short term; those who want a Masters qualification may want to stop whining and get on with it. This is personal/professional development; fight the system in your day job.¹⁶

That said, there is no room for complacency. Officers given the opportunity to study on the one hand but given the time to do so are wont to feel short-changed. With the exception of the time available to students, which is out of our control, in designing our programme we came up with solutions to the problems listed in the previous section—not perfect solutions, we are constantly adapting, but workable ones which have attracted enormously positive student feedback.¹⁷ Of course we are proud of this feedback but the

¹⁶ This response was not obtained from a formal questionnaire of our students; rather it is found in a discussion thread on the British Army Rumour Service ('ARSE', the site is an unofficial clearing-house for helpful advice and anonymous griping) concerning the educational opportunities of Army officers. See post by 'Dragstrip' on 26 January 2007,

<http://www.arse.co.uk/cpgn2/Forums/viewtopic/t=15896/postdays=0/postorder=asc/start=30.html>

¹⁷ A representative sample: '...feedback and summary during the discussions was particularly insightful and opened other avenues to review and research.'; '...willing to allow the discussion to develop rather than leading it which enabled us to initially explore and discuss before being either bought back on track or opening up other avenues to explore.'; '... an excellent teacher who not only knows his subject he also knows a great deal about how to engage people... despite having never met him personally, the effect that my teacher has had on me as a student is far greater than any that I have previously encountered.'; 'I'm already looking forward to next term and it can't come quick enough!'; '... educational, challenging and thoroughly enjoyable course.'; '... interesting, challenging and (therefore) very satisfying.'; '... challenging but hugely enjoyable course'; 'The syllabus is stimulating, the associated reading interesting and the debates thought provoking...'

reason for restating it is not vainglory; rather it is to reinforce the point that on-line learning can be as challenging, rewarding and effective as face-to-face learning.

Much of what creates the *feeling* of being a student has nothing to do with actual studying. It's the going to lectures, mingling with other students and staff in hallways, dealing with administration, chatting or arguing over coffee; it is as much the process of getting a library card sorted as actually using it that makes for the student experience. Full-time face-to-face students are immersed in student life. On-line students are immersed in something different, perhaps entirely different. For them 'student life' is something which happens whenever they can fit it in their schedule and is mediated by a 'window', a computer screen, through which they perhaps glimpse an easier, more attractive, at least simpler academic life. This can easily result in a sense of isolation and dissatisfaction with the course of study which has nothing to do with the rate of intellectual progress achieved.¹⁸ There is a limit to what can be achieved on-line in terms of immersion because some of the parameters are simply non-movable. As one student put it,

Yes – there is no substitute for face-to-face...but unless you are doing it residential and full time this is the next best thing. And you get some useful cross germination of ideas from other students (US and Korea so far in addition to the British Army!).

But what can be achieved on-line is improving all the time. Moreover, the perception that face-to-face is better is not so much a reflection of relative learning efficiency as it is a wistful expression of the reality that an oft-mortared barrack in Basra is a less congenial place to study than an oak-panelled library somewhere peaceful with soft lights and comfy seats. But, as this student recognizes, the best is the enemy of the good: military men studying on-line are more likely than not to be doing it from the place in which they do their 'day job'—in theatre. The wonder is not that it should be the case that they should prefer to be doing it elsewhere it is that it can be done at all. In the words of another military student:

My instinct suggests that there is inevitably some loss [in on-line learning as opposed to face-to-face] but I am not sure I could quantify it and I think it is less than I thought especially once the mechanics and "etiquette" of online study are established.

The issue can be reduced to the quality and quantity of contact and interaction with both academic staff and other students. Of the four main venues in which contact and interaction takes place, lectures, seminars, office hours, and hallway or water-cooler chit-chat, there are virtual equivalents that are respectively much better, better, as good, and not much worse. There is no equivalent to the pub. Alas...

¹⁸ For more on the frustrations faced by on-line students, what keeps them motivated, and the surprising extent to which they form strong, lasting relationships with other students and staff they have ever met, see 'Online Students Tough, Focussed', Converge, (October 2003), <http://www.centerdigitaled.com/converge/?pg=magstory&id=70489>

The lecture is famously ineffective as a mode of teaching. With exceptions, they are dull, didactic, passive learning experiences which stretch the capacity of all involved to remain focussed. On-line programmes should not aim to reproduce them because the lecture is an artefact of 19th century bandwidth limitations which meant that the most efficient way for one person to communicate a large body of information to a large group of people in the relative absence of books and articles was to stand in front of them and talk. Everybody went at the same speed regardless of their ability. All went through the material in the same order regardless of their interest or need. And the lecturer must not go off topic for fear of leaving students, whose reading all had to be done beforehand, behind in confusion.

The routine lecture should be dead and un lamented on-line where there are much better, richer, more effective means of presenting study materials that blends the thoughts of the course creator with a variety of illustrative media, maps, photos, journal articles, book chapters and exercises. Students may stop to stop, to read, or watch or do something to deepen the knowledge they have obtained or synthesize it with other knowledge. They can access material in an order which suits their needs and interests. What we strove for in our analogue to the face-to-face lecture was the feel of a sort of book, which gave the sense of being guided through a subject by a single expert individual who had defined the narrative of a course and its specific themes, which would in a sense ‘talk’ to students while at the same time allowing them to modulate the depth and pace of learning to their requirements and interest.

For example, a section of a course on the Cold War dealing with the manner and course of its end at a meta-level consists of a simple narrative of events which includes reference to President Reagan’s famous speech in Berlin where he demanded ‘Mr Gorbachev, tear down this wall!’ At another level, students may listen to the actual speech by clicking a link. At another level still, students by clicking on another link may look at a digital copy of the President’s notes annotated in his own hand. And beyond that there are links to academic articles on the place and significance of this speech in the historiography of the Cold War. The point here is not that *more* information can be presented on-line—that in itself is not much of a statement. Rather it is that information can be presented in a manner that leaves it to the student to determine the needs of the level to which he or she must probe data presented in the narrative *at the time*. In other words, the student does not go through the topic of the ‘lecture’ at the average rate judged by the presenter as that which leaves the fewest behind without overly boring the rest, he or she goes through it at his or her own rate with frequent opportunity to drill down into topics of particular interest to them.

Indeed the overall thrust, and all-important rule in on-line teaching in my view, is that *students should be told less but do more* as that encourages deeper learning and faster skill growth, particularly of sampling a body of literature, identifying its key concepts, and critical evaluating its main texts. To take the case above, in a face-to-face setting the lecturer might have said simply ‘President Reagan is reckoned by historians to have been more critically thoughtful than contemporary accounts allowed.’ Which two thirds of the way though a 90 minute lecture might make no impression whatsoever, whereas the on-line student who had followed the links, listened to the speech in question, and looked at the speaker’s notes written in his own hand changing the words and direction of the

speech in historically significant ways would simply know this was the case, and why without having been told a thing.

On-line, as in face-to-face, the place where students learn actively is in small-group seminars. If the routine face-to-face lecture will, and should, be killed by better, more efficient, effective and rewarding on-line alternatives the seminar stands *ne plus ultra*. But on-line seminars *can* be at least as effective in terms of achieving learning objectives as their face-to-face equivalent. In addition, they have other advantages, including:

- On-line seminars are a permanent resource because they are text-based. Therefore, brilliant ideas are not lost to students who may more readily learn collaboratively;
- Interaction on-line is more structured and focussed because it is text-based and therefore generally more thought-out—says a student ‘[On-line, you get] time to think/research before answering challenges;
- Following from above, student contributions while perhaps less in quantity tend to be greater in quality (an important point: shy students may contribute more on-line therefore achieving qualitative and quantitative gains);
- More clearly links educational activities (discussions) with measurable outputs (assessed essays).

The reason why emphasis is put on the degree to which on-line seminars *can* deliver the benefits above (but will not necessarily) comes down to two things. First, none of the above can be obtained without embracing asynchronous seminars which evolve over an extended period of time. Students have to have the time to think not merely to type. In our view, it has simply not been worth the time to try to arrange real-time on-line seminars because the aggravation to learning objective satisfaction ratio never gets even close to 1:1. Second, the above imposes a substantial change on the manner in which the instructor works. In a face-to-face context a course seminar is an activity which inhabits a defined part of a schedule; for better or worse, whether objectives have been achieved or not, when the ‘bell rings’ it is done and you move on.

By contrast, the asynchronous on-line seminar is always ‘on’ which means the instructor is also always on-duty. The trick is setting boundaries and expectations and managing one’s work so that in aggregate the time-spent moderating discussions in asynchronous seminars does not exceed what would be spent preparing and leading face-to-face ones. In principle, teaching is teaching and leading an on-line seminar is no different from a face-to-face one; in practice, the danger is of getting sucked in to spending much more time teaching than would otherwise be the case. It is often said that the key attributes of on-line students are self-discipline and effective time-keeping. That is equally true of on-line teachers.

In fact, the hardest things to reproduce online have little to do with the achievement of this or that learning objective. In our programme there is little or no difference between the average grade outcomes of our on-line students as opposed to our face-to-face ones although all are marked on the same generic framework, do the same

sorts of assessment, and study for the same amount of notional hours per credit.¹⁹ Actually, as many on-line students are coming to the programme after many years out of university (in some cases having no university training at all)²⁰ one could argue that skill progression on-line is actually greater. What is really challenging from a practical pedagogical perspective is giving verisimilitude to the ineffable aspects of the experience of being a student when the student in question has no physical presence on the campus. Put differently: how do you create a virtual campus? The ability of any particular university department to create a virtual campus is obviously limited for the same reason that the egg does not lay the chicken.

Our experience is of creating a virtual programme as an adjunct to a world-renowned physical department housed within a nearly 200-year physical university. It is the opinion of this author that virtual universities are coming, and not matchbook degree-for-fee-dispensers, but teaching institutions to rival anything the 'real' world has to offer; but that is beyond the scope of this paper.²¹ For the purpose at hand, it is sufficient to note what can be done usefully by the 'egg'; which is, surprisingly, quite a lot if not a complete solution. Beyond the lecture hall and seminar room a student's education is shaped by contact with their instructors and their peers in situations where the discussion is subject-related but not course-related. In other words, in our War Studies department we talk often in the hallway, around the water-cooler, over the photocopier, in the café and at the pub, in a collegial way (even if heatedly) about war; these discussions are not prepared, they are natural and off-the-cuff; students participate in them and take as much, in some cases more, from them as they do from more structured activities. This is what it means to be in the 'cloister'. Let us not delude ourselves that if we can create a lecture hall and a seminar room on-line (in fact even if they are both objectively better than their face-to-face equivalents) that the job is done. Students want and need more contact.

Contact time can be usefully broken down into structured and unstructured variants which as an on-line instructor I tend to think of as being approximated by meeting with me in my office to talk about something (generally a specific something or problem whether intellectual or pastoral in nature) or meeting with me in the corridor or pub after class, individually or in a group. The unstructured variant is the trickiest. We have tried to create an atmosphere for unstructured interaction in several ways:

1. A caveat, a common approach is to add a 'café' area in a discussion forum for the purposes of socialization. It did not work for us. Indeed we have never seen a 'café' discussion work. Why should it? There's no coffee there, let alone stronger libations that would reduce social inhibitions and encourage discussion. That being the case, why go there? Who needs to spend their time typing confessional, opinionated, off-topic missives to no one in particular? Advice: don't bother.

¹⁹ In fact the data would suggest that our on-line students have slightly higher average grades. At present, however, as we have had thousands of face-to-face students and only just over a hundred on-line ones it is too early to draw significant statistical conclusions.

²⁰ In contrast with the United States in Britain having a university degree has only comparatively recently been seen as a desirable, let alone necessary, thing for an officer. As a result, the more senior the rank of our students the less likely they have degrees. Professional experience, in the subject area as well as in specific analytical and writing skills, has proven a more than adequate preparation in most cases.

²¹ For more see Dr. Alex Heiphetz, 'Do you want ketchup with your degree, or can you beat McEducation?', Delta L Printing, <http://www.deltalprinting.com/KetchupWithYourDegree.pdf>

2. Every guest lecture which takes in the physical department is recorded and made available to on-line students in the form of a downloadable podcast. To this point economies of scale have made it unfeasible to broadcast these simultaneously and therefore to involve on-line students directly in question and answer sessions. This, however, is far from an insurmountable barrier. (Indeed, from a strict cost point of view it is as easy to see the trend as heading in the direction of having speakers present on-line as a matter of preference.)
3. The Department of War Studies maintains a group blog; students as well are encouraged to maintain and use blogs of their own as places to voice their own ideas when they might otherwise be tangential to discussions in specific courses.

The second and last points merit further elaboration. The point of the second is that on-line students need to have some sense of involvement with the whole intellectual life of the department and school of which they are a part, which cannot be done if they have not access to it. The third could perhaps be taken as a vogueish adoption of a new fad; this would be very wrong. It takes nothing more than access to a library and a bookstore for a student to engage with the pure ideas of his or her professors. That is why fee-paying students want more. They want to challenge these ideas as their own ideas develop and to see how their professors' ideas evolve as events require from day-to-day, not in accordance with their comparatively glacial output of publication. That means interaction in class for the most part.

But there is more to it still because what students also need is to see the patterns of thought of their professors; how they think is as important as what they think. How else to learn that knowledge advances in fits and starts, that it is as much as nine parts inspiration as investigation, and that the study of the behaviour of human beings by other human beings, especially in the case of war, is inevitably a thing which engages the passions of the investigator which must be faced up to with intellectual honesty and mental discipline, except to see one's teacher react emotionally, get things wrong and adjust their evaluations after sober second thought? In a face-to-face programme students gather more or less osmotically such impressions. In an on-line programme instructors have to be more deliberate about providing a venue in which they can be seen thinking because the tendency in the absence is for students to see everything that comes from their tutors as the proverbial curate's egg—always perfectly formed—which is of course a misapprehension with mal-educative potential.

In other words, it is of pedagogic value for professors to be seen to be struggling to understand something and even to be foolish or wrong. An on-line programme which structures out such possibilities because it has no equivalent of a water-cooler is doing the best for its instructors, not its students. Anyone who has been in academia for a while ought to recognize that being a genius and being a crank are not mutually incompatible characteristics in a scholar; a *bit* of madness is a methodological positive. Our programme's water-cooler is our blog—Kings of War—on which students and faculty can post and comment, with some basic restrictions: essentially, be polite and be sensible.²² The upshot of this is that building a true 'learning community' as the pedagogical literature suggests should be our goal as educators consists of more than

²² See Kings of War: <http://kingsofwar.wordpress.com/>

creating straight educational space.²³ It means creating virtual social networks that students actually want to take part in because they are fun. Again, as with moderating on-line seminars, there is a significant practical dimension which needs to be borne in mind by on-line educators and their supervisors: blogging, also-known-as messing around on-line, is actually part of the job.

The Future of the On-Line Cloister

In this paper I have argued that the professional military educator has in on-line education a tool for addressing what is a strategic issue as much as a pedagogical one: how to continuously educate our soldiery at an advanced level more or less while they fight, prepare to fight, or are recovering from having been in a fight. The Department of War Studies, King's College London has come up with a cutting edge and, so far, unique programme of studies delivered in an innovative way that does not compromise any of the intellectual standards of our internationally-reputed face-to-face degrees. The programme works. It works very well. What is clear, however, is that the solutions we have come up with are far from final; the technology is evolving with extreme rapidity, presenting us with new and better ways of doing things; the pedagogy is evolving too but we are struggling to keep up with the realm of the possible.

What can be said of the future then? When we started to build our on-line programme we felt we had entered *terra incognita*. In this section, on the basis of what I have seen and learned of the landscape, I will attempt some guidance on what we as educators are in for; if not a map as such then at least a sheet of rough notes or guidance.

First, as Indiana newspaperman John Soule's 1851 advice (popularized by Horace Greeley), 'Go West, young man!', was apt for the 19th century, 'Go digital!' will be a mantra of the 21st. Institutions would do well to surf the wave rather than be flooded by it. Whether it is completely on-line or as part of a blended programme of studies, the Internet as a medium of education is headed for the mainstream. The benefits both practical and pedagogical are too great to be ignored. On-line education currently has some weaknesses relative to face-to-face which will not last much longer as bandwidth increases and as we learn how to make use of it. It does not take much imagination in an era when young people today, sometimes referred to now as 'digital natives',²⁴ already

²³ There is no single definition a learning community. Typically those seeking one start with 'Any one of a variety of curricular structures that link together several existing courses—or actually restructure the material entirely—so that students have opportunities for deeper understanding and integration of the material they are learning, and more interaction with one another and their teachers as fellow participants in the learning enterprise.' See F. Gabelnick et al (eds), *Learning Communities: Creating Connections Among Students, Faculty, and Disciplines* (San Francisco: Jossey Bass, 1990). Some of the basic characteristics of a learning community are helping students establish academic and social support networks, providing a setting for students to be socialized to the expectations of college; and bringing faculty and students together in more meaningful ways. See N.S. Shapiro and J.H. Levine, *Creating Learning Communities* (San Francisco: Jossey Bass, 1999). 'Though content may vary, nearly all of the learning communities have three things in common: shared knowledge around a theme, shared knowing (each other socially and intellectually), and shared responsibility (to each other).' (Vincent Tinto, Syracuse University), quoted on the website from which much of the above was drawn: <http://aaweb.lsu.edu/slc/whatIs.htm>

²⁴ See Marc Prensky, 'Digital Natives, Digital Immigrants', *On the Horizon*, NCB University Press, December 2001, <http://www.marcprensky.com/writing/Prensky%20->

spend half their waking hours or more playing on-line multiplayer games, interacting with each other on-line socially, and surfing the Web, to see that it will not be long before what students still see sometimes as a benefit of 'actually being there' becomes merely a pain of getting there. There is a virtuous circle here: flexibility for learners is mirrored by flexibility for teachers. To risk being entirely too predictable in my selection of illustrative quotes: 'Resistance is futile.'

Second, to build on the previous point: *carpe diem*, seize the day. It is not merely the technology changing which matters. This much we know from the RMA debate. It is the organization which best adapts and learns to the new environment technological change has created that will succeed. The learning curve is steep and it must be said the reluctance if not resistance to change within the organization needs time to be overcome. In a competitive environment advantages accrue to those who get on to the curve first, particularly as change accelerates—as it will: such is the logic of Moore's Law, things get faster at an accelerating rate.

Third, at the present time on-line degree programmes are as islands in a sea of degree programmes delivered in a traditional manner. But more programmes are being created all the time and extant ones are growing. Soon these islands will form archipelagos and ultimately continents. Drop the metaphors: we have now workable on-line classrooms which students enjoy learning in; it will not be long before we have virtual campuses. On this point, it is worth taking a lesson from the dot.com bubble which burst a decade past. The institutions which survived, and have thrived afterward, were those which effectively twinned strong 'bricks and mortar' organizations with strong products with the hierarchy-flattening, efficiency-maximizing potentialities of computer networks. This author thinks it unlikely in the near to mid-future that any pure 'dot.com.u' could challenge the best physical universities. I am sure, however, that the best universities today will have to do much more on-line or they will not much longer remain among the best.

Conclusion: Implications for Military Professional Education

MA War in the Modern World from the Department of War Studies, King's College London is a viable programme for the education of operational military personnel at an advanced level, building knowledge in mixed civilian-military groups in an integrated programme of study including aspects of political and military history, strategy, international relations, area studies and other disciplines, with clear internal skill progression and structure. Nonetheless, it is a drop in the bucket as far as the educational needs of the armed forces goes.

The military needs a much broader menu of courses and programmes because it needs anthropologists and economists, philosophers and historians, sociologists and political scientists, and more. This may be closer to reach than first meets the eye. Consider the last point in the preceding question concerning the unlikelihood of virtual universities. The exception to this may be the military because of its specific needs and

[%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf](#) 'Digital natives' according to this argument are the generation which grew up with digital technology, operating at 'twitch' speed and performing multiple activities simultaneously.

resources relative to established civilian universities and because of a peculiarity of on-line as opposed to face-to-face course development.

First the different needs: As has been discussed already, for the military with respect to the trade-off between face-to-face learning and on-line learning the best frequently is the enemy of the good. This is not nearly so much the case with civilian students whose circumstances differ from those of soldiers in wartime in obvious ways. Civilian students are more able to have their cake and eat it too. Top universities have an interest in blending on-line with face-to-face learning because that builds on existing comparative advantages such as leafy grounds, attractive buildings, and other infrastructure which they have created at great expense; armies have an interest in as much on-line as possible because the leafy grounds of the campus make no difference if the student is doing the course from a compound in Helmand.

Second, the different resources: Universities, even the rich ones, generally live from year-to-year financially. The trouble with developing on-line courses, despite the mid- and long-term efficiency gains, is that they are expensive to build up-front. The writing of them is complex and requires the full effort of a member of academic staff who will not be able to do anything else the while. It is true, that they are cheap to run once built but rarely is there sufficient slack in the system to take staff off existing duties. There are also many demands on the military budget but the investment relative to the whole would be infinitesimal; moreover, it is more purely a financial question which can be addressed by financial instruments.

Third, the peculiarities of course development: a main thing to realize is that on-line the authoring of a course and the teaching of it are distinct and discrete activities. In face-to-face this distinction is not so clear. An on-line course can be written once by the leading expert on the subject and simply updated thereafter but have its tutorial elements taught by others. This is what makes on-line courses scaleable and efficient in the eyes of university administrators, because it leverages the one-time effort of its key minds while in theory limits the maximum size of a course to the number of suitable tutors (whose skill requirements are lesser) that can be found. It is the difference between having a master craftsman create an object once in a way which is easily repeated and having him create a new object each time.

Taken together this would suggest a strategy for the professional military education of officers in the era of the 'Long War' in the broadest possible range of courses and programmes of the highest quality. Invest in the defrayment of the up-front cost to civilian universities of creating programmes or courses which can be delivered on-line. These courses would be made available to military students, either delivered by the university or by a military educational institution under a license arrangement. (The point being that the military has no desire to compete for students from Harvard University, it simply wants to have a Harvard-level course for its purposes; although it may wish to have its officers to take the course with civilian students). Require all such courses to be created to a nationally recognized standard template with respect to credit, time, assessment envelope and marking criteria.

In this way, over time would be created a network of individual courses or programmes which were capable of being delivered in a way which was accessible to military students, whether in all military cohorts or, better, in mixed cohorts. These courses would be created by the best minds in the respective subjects. And finally, if the

credit value and general pattern of individual courses were standardized they could be assembled in varying combinations in accordance with need and demand.

Armed forces in the United States, the United Kingdom and elsewhere are now recognizing that winning the wars of the future requires more intellectually from its war-fighters than perhaps it ever has before. There is a growing consensus that an officer corps with graduate education in the broadest range of academic disciplines is desirable because that is what is required for the sort of mindsets and skill sets which are vital in keeping ahead in the race adaptability and flexibility. We spare no expense to equip our troops with the weapons and equipment they need to prevail on the battlefield. Why should we spare the effort and expense of equipping them with the kind of education and training most agree are the key to winning wars?

It is possible now in *MA War in the Modern World* for soldiers anywhere in the world to obtain an advanced qualification from an internationally-reputed university. That being the case it should be within reach for a much broader range of courses and programmes written by the best experts the country has to offer to be made available through similar means. The challenge of today's toughest enemies stems in large part from their ability to derive advantage from the power of networks. We should be doing the same.