Virtual Terrorism and the Internet E-learning Options

DAVID R. COLE

University of Tasmania, Australia

ABSTRACT E-learning on the Internet is constituted by the options that this global technology gives the user. This article explores these options in terms of the lifestyle choices and decisions that the learner will make about the virtual worlds, textual meanings and cultural groupings that they will find as they learn online. This is a non-linear process that complicates dualistic approaches to e-learning, such as those which propose real/virtual distinctions. It also sets up the notion of virtual terrorism, which is explained in terms of the political forces that have come about due to e-learning. This article uses the philosophy of Gilles Deleuze as a best fit in order to understand the ways in which the e-learning of the Internet options is apparent in contemporary society. Deleuze made a division between unconscious learning and apprenticeship learning, that makes sense in terms of the virtual and cultural worlds that inform the lifestyle choices on the Net. This is because the navigation of virtual worlds involves imaginative processes that are at the same time an education of the senses of the type that the apprentice will receive. Furthermore, in his work with Félix Guattari, he developed the notion of the plane of immanence, which is used to pinpoint the presence of virtual terrorism in e-learning practices.

In a time of drastic change it is the learners who survive; the 'learned' find themselves fully equipped to live in a world that no longer exists. (Eric Hoffer, adapted from *Reflections on the Human Condition*, aphorism 32 [2006])

Introduction

This article takes us back to a critical moment in educational history that took place during the 1990s in democratic industrialised countries. The Internet had been rapidly developing over a number of years, and had come about due to a collaboration between the defence and university systems of the West (DeLanda, 1992), where technology had been used to provide communication links between participating parties. At that time it was a controlled process, linked to research and making fast communication possible where it had been previously impossible. Yet during the 1990s this technology made a leap from these confines into the Western mainstream, where it quickly became the solution to educational problems by providing access to knowledge, information and resources (Smith, 1988).

However, this was not the end of the story. At the same time that the Internet entered the mainstream in terms of being a universal educational provider, it also opened up further possibilities for the students. They could copy essays and distribute them on the Net. They could plagiarise more effectively. They could view pornography, or spend all day emailing their friends. In fact, the Internet has produced a whole range of activities that I have called the Internet elearning options. These options become significant when they coalesce and affect the lifestyle choices of the agents. This is happening to a greater or lesser extent as the Internet is used in the elearning curriculum process, even if the students are mentored and directed by a significant other (Robertson & Alexander, 2003). This greater or lesser extent also defines the reality of contemporary virtual terrorism. Virtual terrorism is a pivotal political issue, and an ironic outcome to the development of the Internet at the heart of Western and global e-learning.

1. Internet Culture and Virtual Terrorism

The Internet provides access to an ever-increasing number of lifestyle options, yet this access does not come with an immediate scaffold of normative social expectations, as would be the case if they were taught in a classroom, by the family or learnt about on the street (Lankshear & Knobel, 1998). Students learning on the Internet will personally view these options and take action as to whether or not they constitute a viable alternative to social structures outside of the electronic world. This process may be impregnated with insightful democratic values about the values of the texts on the Net, and this determines critical media literacy (Kellner, 1998; Schirato & Webb, 2004). Yet this critical training will always come about after the agent has used the Internet to learn about new ways to organise their lives; it is in fact an analogue approach to a digital process.

Carrington (2005) has used Freud's notion of the uncanny to characterise the type of emergent literacy that is present in contemporary society and through digital textual practices. On the Internet, this sense of the uncanny is especially significant, as digital texts are able to morph into any imaginable form and consequently bear any imaginable message (Kroker, 1996). The e-learning options that the Internet gives rise to serve as crossing points for the transformations in social life to take place as the viewers take note of different lifestyle choices. They also act as platforms for the augmentation of misunderstanding and illusion about what this process means. This is because the Internet is the major pedagogic space for the twenty-first century (Kellner, 2004). The new 'inhuman' pedagogic mechanisms of servers, gophers, ISDN lines and telecommunications networks are not bound by traditions of morality or normative social convention. The resultant unmannered 'release' of polemic communicative views about social groups that escape immediate normative control is characteristic of the type of learning that proceeds when subjects use the Net. This smokescreen of polemic response and illusion is not only enticing, it is also interactive, energising and in a time of relative values, something concrete to hold onto.

The Internet has been likened to the development of previous public spaces for discussion that have escaped the rules and traditions of authority. For example, the coffee-houses of seventeenth-century London were unruly places where discussion could breach any subject with a rhetorical zeal derived from the recent overthrow of the Crown and the Church. In these revolutionary spaces, identities were confused, and the lowest could commune with the highest in animated debate. Habermas (1989) has identified the coffee-house as an important development in the history of discursive space unregulated by established authority. Facts and the truth were subservient to gesticulation, and the rowdy enactment of opinion was unfettered by formal control. Connery (1997) has noted that discussion groups on the Internet often display a similar flavour by integrating a 'hybrid of oral and written culture' (p. 170) disseminating information without regulation or inquiry into its authenticity. The coffee-houses came to be dominated by colourful characters demonstrating rhetorical muscle, and the owners used them as advertising for their establishments. Other coffee-houses focused on particular aspects for discussion, for example, literary coteries, auctions, science, or information about stocks and investments. In so doing, the anarchic discursive space that defied authority became authoritarian, and certain types of information or the harbingers of that information came to dominate in authoritative cliques.

The same is happening on the Internet, but the muscularity of debate is not (literally) the force that is attempting to take over. The commercial and governmental interests that have a stake in the new technology are determining a new conformity, which threatens to dominate the Internet to the benefit of what has been referred to as 'the virtual class' (Tiffin & Rajasingham, 1995). Virtual terrorism therefore involves: (1) real terrorists who are using the Internet to further their views by spreading terrorism virtually; yet at the same time, mainstream Western society now functions with the Internet as its major e-learning pedagogic tool, so, (2) virtual terrorism is also related to the illusions that this causes through exaggerated and polemic information being spread by the worldwide web (see Figure 1). The last sense of virtual terrorism is (3) the work of the Internet hackers, which acts as a middle path between real terrorists and the conformity of mainstream Western society. Their virtual terrorism involves a technical expertise in coding systems, working out how to get into secure web environments and having the wit to make relevant political messages (Hannemyr, 1999).

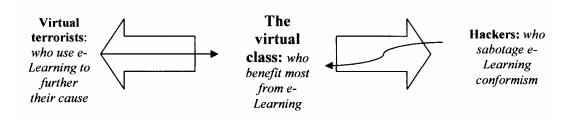


Figure 1. The dynamics of virtual terrorism.

2. Virtual Terrorism and Internet E-learning

The United States Commission on Critical Infrastructure reported in 1996 that one of the most potent threats to the status quo in the USA now rests in the computer networks that carry vital information of the economy, population, energy supplies, politics and law. It was estimated the defence systems of the US government were breached approximately 200,000 times (Marsh, 1996). The solution that the commission proposed was to tighten the electronic security systems surrounding the most sensitive information with the hope of making the work of the hackers and terrorists impossible. This defence-minded and partisan rhetoric is echoed to this day (United States Institute of Peace, 2005). Contemporary education, with computers taking a ubiquitous place in the home and at school, cannot ignore the connections to virtual terrorism that it provides through elearning. During the course of Internet inquiry processes, students will feel the conformity of the virtual class through spam, pop ups and polemic information sources. They will be driven by this conformity to check out anything that is other to the virtual class, such as any social group expressing novel lifestyle choices. They may even be tempted to hack into a website if they can work out how to do it!

The learning options of the Internet are therefore a complex mixture of the three aspects of virtual terrorism, and this determines the non-linearity of internet e-learning. Linearity in this context involves the repetition of established systems, values and ways of working. Digital technology accelerates linearity through the binding of signification to the circulation of signs, as Anthony Wilden (1972) theorised in his System and Structure. Yet at the same time, digital technology produces a profusion of systems, and the connectivity of many micro-linearities. In terms of the Internet e-learning options, you can read more information faster due to, for example, the uploading of written documents into hypertext format. This linearity is in contrast to the processes of non-linearity (Chen, 2002), and how subjects learn when they are responding emotionally to phenomena, such as the conformity of the virtual class. Subjects in cyberspace adapt to multimodal (Kress et al., 2005) Internet stimuli through the connection of micro-linearities such as image, text, video and icons; this process is intensive and leads to subjects not dwelling on information in the same way as they would when, for example, they read a textbook in a classroom. Students therefore learn on the Internet through surfing, and the following of lateral and tangential desires that may take them away from the original project or set objectives and into different e-learning landscapes.

The processes involved with engaging with objects on the Internet to enhance e-learning may be understood through the ways in which students navigate their ways through these tasks. Vital to this navigation are the dual forces of transgression and subversion, that takes the digitally enhanced drive of linearity – using the Internet to learn more – and meshes it with non-linear cultural mores – using this learning to make lifestyle choices. This point about the Internet e-learning options is by analogy a philosophical paradox, which has been debated since Plato (380 BC) proposed the workings of the memory in cognitive events. The paradox today is understandable if we imagine the Internet as determining an empirical map of the postmodern, global mind, that is at the same time full of disparate and conflicting elements, yet is also connected.

3. E-learning through the Unconscious and Apprenticeship

Deleuze (1994) has tackled this paradox in terms of the history of philosophy, and the image of thought. This fits with e-learning on the Internet through the 'specular' [1] and personal processes of learning that are involved with making lifestyle choices. Learning in this context is the appropriate name for the subjective acts carried out when one is confronted with the objectivity of a problem (Idea), whereas knowledge designates only the generality of concepts or the calm possession of a rule enabling solutions. By following Leibniz, Deleuze (1993) has suggested that to learn is to enter into the universal of the relations that constitute the Idea, and into their corresponding singularities. It is a threshold of consciousness at which real acts are adjusted to our perceptions of the real relations, thereby providing a solution to the problem. As a result, learning takes place in and through the unconscious, by establishing bonds of complicity between the mind and that which is outside of it. On the Internet, subjects become conscious of new lifestyle options through mediated, virtual notions that become real as they integrate these practices into their habits and everyday life.

Dennett (1991) turned to plasticity to explain the work of learning, which moves the unconscious learning of Deleuze onto a cultural level. Plasticity makes the learning possible of everything which is not fixed in the system of representation, for example, the field of Internet elearning options that is digitally mediated. Cultural evolution, and transmission of its products, is, according to Dennett (1991), the second new medium of evolution, and it depends on phenotypic plasticity in much the same way as phenotypic plasticity depends on genetic variation. In other words, we are able to 'install' the fruits of our cultural evolution as systems of habits in the partly unstructured brain and so to learn about them. In this manner, students act on their lifestyle choices through engagement with e-learning.

Parallel to the action of plasticity, the unconscious yields and buckles with the force of action, rather than being 'the other' of what we may conceive. The unconscious is the link between that which we may understand and that which is attracting the power of the mind – it is in fact the journey to the other. The Internet, in its position as the major pedagogic tool for Western society, is central to this field of becoming, and as such it is a real and imaginary plane of interaction, communication and conception. Thus, the unconscious e-learning options of the Internet engage with affective processes that power linear learning and create non-linear lifestyle choices.

Deleuze (1994, p. 164) has defined the other aspect of learning to be the work of the apprentice, who constitutes and occupies the practical or speculative problems as such. The apprentice raises each faculty of the senses to the level of its transcendent exercise, and in so doing, attempts to grasp that which can only be sensed. This is the education of the senses, where violence is communicated from one faculty to another, which nevertheless always understands the other through the perfection of each. Deleuze (1994) argues that we can never know in advance how someone will learn, for the limits of the faculties are encased one in the other in the broken shape of that which bears and transmits difference. Concomitantly, there is no one method for learning; the Internet e-learning options always open up different learning paths. A method is the means of that knowledge which regulates the collaboration of all the faculties; it is the manifestation of a common sense or the realisation of a Cognitatio natura, and this presupposes a good will as though this were a 'pre-meditated decision' of the thinker. Students learning on the Internet are apprentices of contemporary lifestyle choice that obviates this type of decision making; the options they will take are not connected to natural or human nodes on the other end of navigated paths, but they pass through the nexus of virtual terrorism, which has varying degrees of normative and conditioned human control attached to it. This reality is in contrast to common sense and work on learning that has attempted to reconnect e-learning with structured pedagogic approaches, such as transformative education (Kalantzis & Cope, 2004).

4. Pedagogy and Virtual Politics

Mainstream Western culture creates illusion and misunderstanding about developing e-learning forces such as the virtual terrorists and hackers through the placement of the Internet as its major pedagogic device. This movement of e-learning, which has installed cultural evolution since the 1990s and the placement of the Internet in education, also links a sensibility, a memory and a

thought with all the cruelties and violence necessary to provide a 'training for the mind' as was described by Nietzsche (1989a).[2] This has led Deleuze (1994) to say that there is something 'amorous but also fatal about all education' (p. 23). The amorous side involves a familiarity with signs; the fatal appears at the edge of the space for the signs, helped by the heterogeneity of the signs that engenders unconscious learning. We learn when the teacher produces heterogeneity of signs and asks the student to 'do with me' rather than 'do as I do'. By teaching in such a manner, the teacher opens up a field of signs which the student may develop, so that the student learns through the difference that is communicated through the limits of the senses, and not through the repetition of the same.

Virtual terrorism is embedded in the pedagogy that is produced as global culture develops on a virtual plane to enable the Internet e-learning options. With the Internet as teacher, a plethora of heterogeneous signs are apparent, yet there is no one to say, 'do with me'. This leads to clear pitfalls and dangers associated with such a project, and these define the politics that surround the Internet e-learning options. For example, it is important not to forget about Western state-sponsored terrorism (Brown & Merrill, 1993) and the violence that is inflicted in the name of the mainstream, which has also been defined as the fear of the other and of difference (Rose, 1998). Eco (1986) has intelligently framed the problem related to postmodern terrorism, in that terrorism is not the enemy of the great systems, but it is their natural counterweight, both accepted and programmed. If the great systems function as headless systems, having no protagonists and not living on individual egoism, then they cannot be struck by killing the King: 'If there exists a completely automated factory, it will not be upset by the death of the owner, but rather by erroneous bits of information inserted here and there, making hard work for the computers that run the place' (Eco, 1986, p. 115). Eco suggests that in this situation, it is not enough for the terrorist to read Marx; they now also have to ponder Norbert Wiener.

Global capitalism now functions on the Internet due to cybernetic processing and the distribution of information about markets. If the virtual terrorists are to insert erroneous pieces of information, they need to know how this system works, and what information will act in the desired fashion. This is not an easy task, given that the class struggle which has defined Western society is in a process of 'elastification' across electronic networks that are strategically placed at work and in schools. In this theatre of postmodern proclivities, capital is running riot almost primitively, and as Baudrillard (1994) has neatly put it, the great cynical figure of capital cannibalises all negativity, 'parodistically going beyond its own contradictions' (p. 52). This means that many educational values are up for sale, or at least under pressure from capital investment and the needs of the market to create new consumers.

5. Exams and the End of Structure

This is an extremely serious point for education and the virtual terrorism of the Internet e-learning options. For example, Punter (1986) has described the continuing and widespread use of examinations in the education system. This tradition is cannibalised by capital, in that the candidates are simultaneously commodified, ordered, selected and produced when they take an examination. This action depends upon momentary expressions of subjective angst:

The substance reflects the form: this is not the arena for risk. Thus the examination produces the familiar double-bind: lurking in the shadows is the image of the brilliant script, which is offered in terms not of a formal perfection but a master-stroke, the single God-given answer which will convince that here is a potential hero of a generation. But this is, of course, not really possible, however much candidates may brag afterwards: and thus the image of the perfect answer to the all-consuming questions of the State is continually withheld, proffered but out of reach, confirming in advance the authority of the Board, convincing the candidates that it is better to be safe than to take the risk the effects of which, after all, nobody will ever see. (Punter, 1986, p. 269)

Most of us working in education will be able to add our personal histories at this point. I realised the absurdity of the situation when studying philosophy at university. At the end of the first year (1987), after seriously examining questions and texts concerning the meaning of life, I was sat in a tiled Victorian examination hall, and required to write several essay style answers in the space of

two and a half hours. The first question asked whether God existed, the others requested that I delve into the nature of the universe and the construction of the self. Now I am able to understand the roots of this examination system in Teutonic classification systems, and the connection between the administration apparatuses and examinations, which guarantees the legitimacy of existing bureaucracies. The Kantian professors of philosophy enacted an apparently metaphysical debate, which was at root political, and acted as an ideological justification for the separation of ideality and actuality. Through this process, any existing political system, however corrupt, could be seen as a manifestation of a supra-phenomenal eternal order; it could be demonstrated as being a bourgeois extension of the divine right of Kings. Doing well in these examinations not only proves to be a personal achievement, but it carries with it an initiation into responsibilities, proving not only the absorption of an intellectual subject, but an operational fitness in the procedures necessary for handling the further dissemination of that subject. The examination is the guarantor of humanist education and a bureaucratic version of political power (Cole, 2005a).

The e-learning options on the Internet are a clear break from the battleground of the examination hall and the clandestine power operations of the examiners and the administrative classes. The existential affirmation of authority through examinations is replaced by the navigation of virtual cybernetic worlds and encounters with entities such as avatars. Testing becomes pragmatic, in that the subject exploring the Internet e-learning options will find strategies that work. Taking away the necessity for examinations also removes the myth of teleology that sits as a sedentary marker at the end of the institutional learning process. The experience of learning, which is reduced by examinations to revision and memorisation (Reimer, 1971), is reanimated on the Internet as the agent structures his or her e-learning projects. Through this process of 'restructuralisation', students direct their learning and may discover verve for education through direct contact with cultural artefacts, in, for example, the construction of *MySpace* sites. Illich made a similar break with institutional learning in his *Deschooling Society* (1971), in which he distinguished between schooling and learning. Schooling in his terms propounds the institutional mythology of hidden curricula, e.g. capitalism, bureaucracy, whilst learning was the actual experience of thought, both abstract and practical.

Illich (1971) proposed the workings of 'learning webs' (p. 76), which use technology to provide free speech, free assemblies, a free press and a universal education that everyone can choose to participate in. The educational experiments that Illich (1971) put forward in the name of deschooling are interesting exercises in the blurring of boundaries between age groups, gender and social divisions that are still relevant today. The sharing of resources through the use of technology to enable participating agents to find other individuals or groups with similar interests does sound prescient of aspects of the current situation on the Internet, and points to the clear educational purpose of possessing a technology which links students of differing backgrounds and locations. The Internet fills out the qualitative experience of learning as unconscious acts, and through the apprenticeship of the senses, in that access to global communication networks allows the student to participate in a stimulating field of signs in order to examine contemporary culture and to transform themselves. Yet the point about the personal qualities of the Internet e-learning options does not address the complex issue of what the student shall learn (Barrow, 1978). Simply transposing the current curriculum onto the Net and using it as a knowledge or communicational resource does not use the virtual difference that the e-learning options produce. It also neglects the historical point that social hierarchies often respond to technological development by the strengthening of division, 'the have and have nots' in the digital environment (Shields, 2003), rather than by acting in an egalitarian manner as Illich would have hoped.

6. The Time of Internet E-learning

The freedom to remove repressive structure from learning to the benefit of the learner is also a point about time. The unconscious and apprentice experiences of e-learning on the Internet do not fit into the direct fulfilment of objectives. In contrast to the provisions of a set lesson, where the teacher designs specific learning objectives for a given period of time, the time scale of the Internet environment, which involves the navigation of virtual environments, must take account of hyperconnectivity when the micro-linearities begin to join together. This is one of the most intense

aspects of the dispersed field of information resources that make up the Net. For example, the large numbers of cross-references and links to other sites makes for an irresistible tendency towards surfing. The definitions of this activity in terms of interactivity, iterability, repetition and transportation have shown that the e-learning options of the Internet are a mutable occupation of the learner and a bottom-up process (Jones, 1995). We see a return to non-competitive play, where the agent may revel in alien landscapes; they explore latent desires through a potential field of connection to subjective wishes. This is the carnivalesque and ecstatic (Bakhtin, 1984; Baudrillard, 1993) aspect of the Internet and the virtual universes that are constructed due to the e-learning options and virtual terrorism. The agent is released from human to human pedagogic control when he or she learns on the Net, and this leads to the exploration of virtual and mediated worlds not running on objective time but responding to subjective time, that is, more akin to daydreaming. Research can get done on the Net, yet the time of the Internet (Cole, 2005b) is a different time to the regulated and enforced institutional time of set lessons and structured curriculum. This difference has consequences for culture, as students now learn about lifestyle choices through this time on the Internet, and they will consequently build societies using their e-learning options, guided by the underlying pivot of virtual terrorism.

7. The Internet Plane of E-learning

The processes of Internet time are immanent in contemporary society (see Figure 2). This means that they define a 'within-ness' of experience, communality or plane of becoming (Deleuze & Guattari, 1988) that every student who uses the Internet to learn will understand. This within-ness also produces contradiction, paradox and polemic views, as the social dualisms that have been set up though education and social hierarchy in the past: for example, the mind/body, the literate/illiterate, the educated/uneducated unravel, not due to educational activism (Giroux, 1983; Freire, 1985), but because of the force of multiplicity prevalent in Internet e-learning and virtual terrorism. For example, Olson (1987) has characterised the educational status of computers as being schizophrenic. This is due to the fact that within the discourse on the use of computers in schools is the struggle concerning the practice of literacy (Donald, 1996). The dream of a fully literate society comes from the Enlightenment vision of education providing a clear description of a rational mind. The ability to process symbols, and to recognise their significance, was also meant to encourage a moral order, and a sensibility that would create and appreciate the edifying ornaments of culture. Nietzsche (1989b) was the great debunker of the Enlightenment by showing that the highly prized Hellenistic values of the neo-classicists of tomorrow were the product of Dionysian intoxication and interpersonal violence. He argued that the two principal institutions of classic Greek society were competitive games and the love of rhetoric in political discourse, which both depended for their cultural centrality upon hidden violence. In these terms, civilisation, as Germany of the nineteenth century understood it, was a rational front hiding the deeper and altogether more important reality of sex and violence (Burrell, 1997).

The Internet e-learning options may be focused through the expression *virtual terrorism*, and this phrase includes the tendency to explore the sex and violence on the Internet. Nguyen & Alexander (1996) have tapped into the pervasive discussion of bodies on the Net by stating that the erotic drive that forces us to transcend our flesh may have found its most dangerous accomplice in computer technology. Pedagogy must now explore the existence of bodies, pleasure (McWilliams, 1999), physicality and violence, as they are an immanent aspect of its functioning, present on the plane of Internet e-learning. They are also lodged in the minds of the students as they explore the Internet e-learning options and tend towards becoming virtual terrorists and subvert and transgress the tenets of the virtual class. Furthermore, the reality of the sex and violence that underpins mainstream Western society is being ever more clearly revealed through the need of the media to be noticed in the market and pornographic websites.

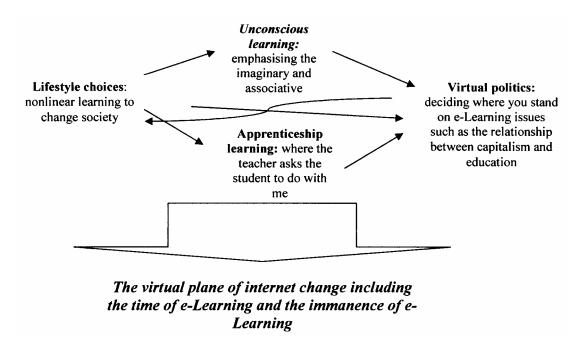


Figure 2. The Internet e-learning options.

8. Virtual Terrorism in Oral and Written Cultures

The Internet e-learning options may also be used to produce critical awareness in terms of advocating of sexual activism in the public arena [3]. For example, Leck (1994) has described an occasion of queer activism in a Cracker Barrel restaurant in the USA. She uses the notion of 'teacher as demonstrator' to draw attention to discrimination by sexual orientation. Leck describes the Cracker Barrel restaurants, where gay employees have been sacked or not hired. The activists sit in the restaurant dressed to attract inquiry as to their presence, whereupon they explain the discrimination against gay workers. This strategy adds to discussing the situation on the Net because diners in the restaurants become aware that they are engaged in the process of discrimination through eating. If successful, it has the possibility of becoming a media event, and spreading the message of discrimination further and highlighting the policies of the company. In this example, virtual terrorism involves subverting the conformity of anti-homosexual work ethics.

The dichotomy of public and private spheres in terms of message dispersal and e-learning is complexified through the pedagogic use of the Net. It acts in a manner that is similar to the transmission of oral culture and distinct from written culture. The immediacy of learning through orality gives private insight into public matters. The Net also gives public insight into private matters. The difference that is defined by the Internet e-learning options and virtual terrorism is characterised by the reversibility of signs, because computer-mediated interaction introduces a rupture in the despotism of the sign under the authority of the written word. Digital mediation accelerates the transmission of information or linearity, and encourages new ways of understanding the circulation of signs, signification and meaning through non-linear unconscious acts and apprenticeship learning about lifestyle choices. For example, the queer activists are able to gather support through use of the Internet, and subsequently redefine identities via the acknowledgement and publicity of discrimination against gays in companies. The Internet e-learning options do not negate oral communication, but transform the ways in which we speak through complexified information-gathering practices on the immanent plane of the Net.

Virtual terrorism does not involve written modes of communication as it is mediated through the Internet e-learning options. Ong (1982) has noted that writing is a 'particularly pre-emptive and imperialist activity that tends to assimilate other things to itself even without the aid of etymologies' (p. 12). This describes the way in which writing 'locks' words into a visual field, so

that the linearity of narrative becomes sacrosanct, e.g. grammar, spelling, textual reference in academic research, the logical efficiency and connectivity of propositions (Austin, 1963). In contrast, orality is a more fluid and less directed type of communication and learning; it has a *bricolage* quality of transferable replacement and expression without the direct effects of *bildung* (cultural construction).

The Internet speeds up and transforms the processes of linearity, for example, publishing writing online or in e-zines (Pixy Ferris, 2002), yet the understanding and thinking about this writing is streamed through the Internet e-learning options and virtual terrorism. The narrative field of writing is broken up through the use of image, video, hyperlinks and iconography on the Net. Plato's (1973) objection to writing was that it is an inhuman activity, pretending to establish outside of the mind what can only be outside. It is a manufactured product that destroys memory; those who deploy writing for their thought will become forgetful, relying on an external source for what they lack in internal resources. Plato (1973) also argued that writing is unresponsive, because one does not get an immediate answer to questions, unlike the dynamism of real speech.

The Internet loops education back to orality and to the inscription of a pre-written space through e-learning. The dynamism of real speech is activated in the digitally mediated space, because memory is not tied to the remembrance of written words arranged in a narrative. The internet e-learning options are activated through a field of signs, inducing the action of the unconscious and the preparation of the apprentice. The objections that Plato (1973) made about writing do not apply to the Internet, as we are taken full circle, away from humanist education and the dream of the Enlightenment and consequent potential for schizophrenia. The Internet e-learning options are constituted by non-directed thought where objects and subjects are interchangeable, identities relative and language fluid. This cultural process may lead to the defensive establishment of back-to-basics literacy programmes that deal with the teaching and learning of grammar, spelling, textual reference and logical connectivity; yet the point of learning on the Net is that material desire and mental activity can be joined through its linear and non-linear e-learning processes. As such, the Internet is a powerful teacher, and leads to the integration of the Internet e-learning options in *becoming virtual terrorist literate*.

The virtual terrorist sits in the fluid space of e-learning on the Internet as a kind of strange attractor to the future of education, culture and Western society. The immense changes for the curriculum, pedagogy and educational structures that will follow as society boots up to the Net are hidden beneath the conditioning of past educational systems. To understand this point by analogy, Hassan I Sabbath instilled absolute fear in political rivals whilst living in a remote valley to the north of Iran (Alamut Valley), from whence he sent his assassins to do his biding. He selected his prospective assassins and drugged them when asleep with hashish. After they awoke they found themselves in a beautiful garden surrounded by scantily clad houris, who attended to every need and desire. After a couple of days apparently living in heaven, the hapless assassins were again drugged and returned to their familiar squalid surroundings. Afterwards, Ben Sabbath would send for the assassins, who were amazed at the accuracy of the account of their sojourn in paradise that Sabbath gave them. In awe of their new master, and believing him to hold the key to the next life, the assassins set out on their killing duties without question as their assignments resulted in certain death. William S. Burroughs (1984), however, asserts that this is the Marco Polo myth about Hassan I Sabbath, and that there were no women in the Alamut Valley, which was a vigorously structured male state within a state. The conditioning that has to be overcome to make room for the heterogeneity of the Internet e-learning options has been set in place with no less intent or thirst for power (O'Ballance, 1979). The three aspects of virtual terrorism act as forces within this conditioning, with the Internet focusing this global energy through its pedagogy transformative action in the e-learning processes. These are irreversible processes that feed into resultant lifestyle decisions.

Conclusion

We are at a turning point in educational history, as we ponder the possibilities of Internet elearning, yet baulk at the consequences in terms of transforming learning institutions to fit in with these pathways. The idealism of the 1990s has subsided, and the suggestion that the Internet e-

learning options are going to solve social problems related to a lack of education is no longer seriously considered. In its place is the reality of the technology that we have in our grasp and the fascinating relationships that have been created between these machines and their users (Stone, 1996). Virtual terrorism is embedded in these relationships, and it is a complex pathway enabled through the e-learning Internet options.

It is not enough to puncture the development of the virtual class with social and cultural values to 'humanise' its emergence. The forces of capitalism and bureaucracy embedded within this movement are too powerful to be sidelined by the requirements of humanity or critical thinking (Giroux, 2002). The suggestion in this article is that educators should follow the virtual class, in that the Internet e-learning options that have come about as populations learn and work on the Net simultaneously reveal alternate routes for learning, which are intimately and contiguously entwined in cyberspace. This following is also a celebration and an affective connection between learning and doing in a technological context.

Notes

- [1] I have written the word 'specular' here to emphasise the spectacular aspect of visual learning that takes place on the Internet. This comes from Guy Debord's notion of the 'society of the spectacle' that described the play of processes of consumption and production around images. This is central to the Internet e-learning options and virtual terrorism.
- [2] The use of Nietzsche is critical at this point in the argument as it shows how higher culture has been 'installed' in history through cruelty. The emergent cultures that are being created though the Internet e-learning options display similar traits.
- [3] The focus that this example gives the argument is that sexual activism, in contrast to other forms of activism such as environmental and economic, retains a relative and ironic air. Therefore the reduction to 'reactionism' of this form of activism by the virtual class is complexified. This is important as the Internet e-learning options are not value-driven, sedentary or political (outside of the electronic environment). See Castells (1997).

References

Austin, J.L. (1963) Performative-Constantive, in C.E. Caton (Ed.) *Philosophy and Ordinary Language*, 20-39. Urbana: University of Illinois Press.

Bakhtin, M.M. (1984) Rabelais and his World. Urbana: University of Illinois Press.

Barrow, R. (1978) Radical Education: a critique of freeschooling and deschooling. London: Martin Robertson.

Baudrillard, J. (1993) The Evil Demon of Images and the Precession of Simulacra, in T. Docherty (Ed.) *Postmodernism: a reader*, 185-214. New York: Columbia University Press.

Baudrillard, J. (1994) The Illusion of the End. Oxford: Polity Press.

Brown, D.J. & Merrill, R. (Eds) (1993) Violent Persuasions: the politics and imagery of terrorism. Seattle: Bay Press.

Burrell, G. (1997) Pandemonium: towards a retro-organization theory. London: Sage.

Burroughs, W.S. (1984) The Four Horsemen of the Apocalypse. Germany: E.M.E.

Carrington, V. (2005) The Uncanny, Digital Texts and Literacy, Language and Education, 19(6), 467-482.

Castells, M. (1997) The Power of Identity. The Information Age: economy, society and culture, Volume 2. Cambridge, MA: Blackwell.

Chen, S. (2002) A Cognitive Model for Non-linear Learning in Hypermedia Programmes, *British Journal of Educational Technology*, 33(4), 449-460. http://dx.doi.org/10.1111/1467-8535.00281

Cole, D.R. (2005a) An Examination of Hegelian and Spinozian Philosophy and their Relationships with the International Baccalaureate Subject of Theory of Knowledge, *Journal of Research in International Education*, 13(2), 69-88.

Cole, D.R. (2005b) Reading in the Future: literacy and the time of the Internet, *Reconstruction*, 5(2). http://reconstruction.eserver.org/052/cole.shtml

Connery, B.A. (1997) IMHO: authority and egalitarian rhetoric in the virtual coffee-house, in D. Porter (Ed.) *Internet Culture*, 161-179. London: Routledge.

DeLanda, M. (1992) War in the Age of Intelligent Machines. New York: Zone Books.

Deleuze, G. (1993) The Fold: Leibniz and the Baroque. Minneapolis: University of Minnesota Press.

Deleuze, G. (1994) Difference and Repetition. London: Athlone Press.

Deleuze, G., & Guattari, F. (1988) A Thousand Plateaus: capitalism and schizophrenia Part II. London: Athlone Press

Dennett, D.C. (1991) Consciousness Explained. Harmondsworth: Penguin.

Donald, J. (1996) How Illiteracy Became a Problem (and Literacy Stopped Being One), *Journal of Education*, 165(1), 35-52.

Eco, U. (1986) Striking at the Heart of the State, in U. Eco Travels in Hyper-reality, 110-131. London: Pan.

Freire, P. (1985) The Politics of Education: culture, power and liberation. South Hadley: Bergin & Garvey.

Giroux, H.A. (1983) Theory and Resistance in Education. South Hadley: Bergin & Garvey.

Giroux, H.A. (2002) The Politics of Emergency versus Public Time: terrorism and the culture of fear, *Culture Machine Interzone*. http://culturemachine.tees.ac.uk/InterZone/giroux.htm (accessed 15 August 2005).

Habermas, J. (1989) The Structural Transformation of the Public Sphere: an inquiry into a category of bourgeois society. Cambridge, MA: Massachusetts Institute of Technology Press.

Hannemyr, G. (1999) Technology and Pleasure: considering hacking constructive. *First Monday*, 4(2). http://www.firstmonday.org/issues/issue4_2/gisle (accessed 1 December 2006).

Hoffer, E. (2006) Reflections on the Human Condition. New York: Hopewell.

Illich, I.D. (1971) Deschooling Society. London: Calder & Boyars.

Jones, S.G. (1995) Cybersociety: computer-mediated communication and community. London: Sage.

Kalantzis, Mary & Cope, Bill (2004) Designs for Learning, *E-Learning*, 1(1), 38-93. http://dx.doi.org/10.2304/elea.2004.1.1.7

Kellner, D. (1998) Media Literacies and Critical Pedagogy in a Multicultural Society. Online Course Materials for 253A, Education, Technology and Society.

http://www.gseis.ucla.edu/courses/ed253a/newDK/medlit.htm (accessed 23 July 2004).

Kellner, D. (2004) Technological Transformation, Multiple Literacies, and the Re-visioning of Education, *Elearning*, 1(1), 9-37. http://dx.doi.org/10.2304/elea.2004.1.1.8

Kress, G., Jewitt, C., Bourne, J., et al. (2005) *Urban Classrooms, Subject English: multimodal perspectives on teaching and learning.* London: RoutledgeFalmer.

Kroker A. & Kroker, M. (1996) Hacking the Future. New York: St Martin's Press.

Lankshear, C. & Knobel, M. (1998) Critical Literacy and New Technologies. Paper presented at the American Education Research Association, San Diego. http://geocities.com/c.lankshear/critlitnewtechs.html (accessed 2 August 2004).

Leck, G.M. (1994) Queer Relations with Educational Research, in A. Gitlin (Ed.) *Power and Method: political activism and educational research*, 77-96. London: Routledge.

Marsh, R.T. (1996) Commission on Critical Infrastructure. Report on electronic US governmental networks. http://www.fas.org/irp/congress/1997_hr/marsh_11-6.htm (accessed 2 May 2005).

McWilliams, E. (1999) Pedagogical Pleasures. New York: Peter Lang.

Nguyen, D.T. & Alexander, J. (1996) The Coming of Cyber-Space-Time and the End of the Polity, in R. Shields (Ed.) *Cultures of Internet: virtual spaces, real histories, living bodies*, 103-128. London: Sage.

Nietzsche, F. (1989b) Beyond Good and Evil. New York: Vintage Books.

Nietzsche, F. (1989a) The Genealogy of Morals. New York: Vintage Books.

O'Ballance, E. (1979) Language of Violence: the blood politics of terrorism. San Rafael: Presido Press.

Olson, C.P. (1987) Who Computes? in D.W. Livingstone (Ed.) *Critical Pedagogy and Cultural Power*, 179-204. Basingstoke: Macmillan.

Ong, W.J. (1982) Orality and Literacy: the technologizing of the word. London: Routledge.

Pixy Ferris, S. (2002) The Effects of Computers on Traditional Writing, *Journal of Electronic Publishing*, 8(1). http://www.press.umich.edu/jep/08-01/ferris.html (accessed 3 December 2006).

Plato (380BC) Meno, trans. Benjamin Jowett, The Internet Classics.

http://etext.library.adelaide.edu.au/mirror/classics.mit.edu/Plato/meno.html (accessed 8 December 2006).

Plato (1973) Phaedrus and Letters VII and VIII. Harmondsworth: Penguin.

Punter, D. (1986) Examinations, in D. Punter (Ed.) *Introduction to Contemporary Cultural Studies*, 267-270. London: Longman.

- Reimer, E. (1971) School is Dead. Harmondsworth: Penguin.
- Robertson, B. & Alexander, R. (2003) Critical Thinking Curriculum Model. *TechKnowLogia*, January-March. http://www.TechKnowLogia.org (accessed 7 December 2006).
- Rose, N. (1998) Inventing Our Selves: psychology, power and personhood. Cambridge: Cambridge University

 Press
- Schirato, T. & Webb, J. (2004) Cultural Literacy and the Field of the Media. *Reconstruction* website. http://www.reconstruction.ws/042/schirato.htm (accessed 21 December 2004).
- Shields, R. (2003) The Virtual. London and New York: Routledge.
- Smith, D. (Ed.) (1988) *New Technologies and Professional Communications in Education*. London: National Council for Educational Technology.
- Stone, R.A. (1996) The War of Desire and Technology at the Close of the Mechanical Age. Cambridge, MA: MIT Press.
- Tiffin, J., & Rajasingham, L. (1995) In Search of the Virtual Class: education in an information society. London: Routledge.
- United States Institute of Peace (2005) Arab Media: tools of the governments; tools for the people? http://www.usip.org/virtualdiplomacy/publications/reports/18.html (accessed 29 November 2006).
- Wilden, A. (1972) Systems and Structure: essays in communication and exchange. London: Tavistock.

DAVID R. COLE is currently working at the University of Tasmania, Australia as a lecturer in Literacy, English Education and Professional Studies. He writes and researches in the fields of literacy, technology and educational theory. He has published a novel called A *Mushroom of Glass* (Sid Harta, 2006). *Correspondence:* Dr David R. Cole, Locked Bag 1307, Faculty of Education, University of Tasmania, Launceston, Tasmania 7250, Australia (david.cole@utas.edu.au).