Virtual Machinations
New Literacies, Popular Media and Taking Risks in Education

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Introduction

The question of what, if anything, is significantly new about so-called "new media" and "new literacies" is challenging. In our current work on new literacies (Lankshear and Knobel 2006) we have drawn on concepts of "new technical stuff" and "new ethos stuff", in conjunction with the now familiar distinction between Web 1.0 and Web 2.0, and a further distinction between two contrasting mindsets to make our own sense of what is new, and of how this might be significant for education.

To concretize these ideas let us begin with some brief illustrations of a burgeoning popular cultural fan practice known as making machinima movies. The first shows machinima sequences being embedded within an episode of South Park, as posted on the "World of Warcraft" channel of Machinima.com's website (see http://www.machinima.com/article.php?article=459). (An abridged version can be downloaded at http://www.machinima.com/films.php?id=10820) . The second features a short sequence from one of the finalists of last year's Machinima Awards (the Mackies). "Illegal Danish Super Snacks" (http://www.machinima.com/films.php?id=1940) is based on the World of Warcraft game engine. This 20 minute video was a collaborative effort involving around 100 players and 10 voice actors.

Run the two machinima clips

1. "Make Love, Not Warcraft – Artard"
   http://www.machinima.com/films.php?id=10820

2. "Illegal Danish Super Snacks"
   http://www.machinima.com/films.php?id=1940

'Machinima' (machine cinema) is the term used to describe the process by which fans use video game animation 'engines' (i.e., the core software providing the various 'functionalities' needed in a game, like rendering graphics, scripting, animation, sound, collision detecting, networking, a scene graph, etc.) and computer-generated imagery (CGI) to render new animated texts on their desktop computers. (In the recent past this kind of text production demanded extremely expensive, high-end 3D graphics and animation engines and was found mostly within the realm of professional animators). Creating machinima involves using tools found within the game engine such as camera angle options, script editors, level editors, and the like, along with resources, such as backgrounds, themes, characters, settings etc. available in the game (en.wikipedia.org/wiki/Machinima ; en.wikipedia.org/wiki/Game_engine). Variants are now going beyond video games per se to use options like filming avatars acting out in Second Life.

Machinima.com, a popular how-to website and archive of machinima animations, claims you

> don't need any special equipment to make Machinima movies. In fact, if you've got a computer capable of playing Half-Life 2, Unreal Tournament 2004 or even Quake [all three are popular video games], you've already got virtually everything you need to set up your own movie studio inside your PC. You can produce films on your own, or you can hook up with a bunch of friends to act out your scripts live over a network. And once you're done, you can upload the films to this site and a potential audience of millions (2006: 1).

The term – machinima – is also used to describe the genre of animation generated by this process. These animations may be fanfics and extend a game narrative in some way, or the game may simply provide tools and resources for producing an entirely unrelated text. Machinima need not be amateurish in quality, either. Animations like *Hardly Workin'* and *Red vs Blue* have won film festival awards around the world (ibid.). It is now possible to download open source software kits designed expressly for designing and editing one's own machinima using content from any video games. Those new to the machinima creation process can also now access online tutorials and interviews with renowned machinima makers for insider tips on how to create one's own high-quality animations. The popularity of this kind of animation remixing has seen the launch of games that directly and openly encourage remixing, such as Lionhead Studios' 'The Movies' (themoviesgame.com).

Sites like machinima.com are what Gee (2004) calls an affinity space (for machinima fans). It has a community space for open discussion and matters of interest to participants at large, a wide range of forums dedicated to specific aspects of machinima, as well as articles and other material intended to support machinima production. One of the most popular resources on the site is an online tutorial provided by Hugh Hancock (http://www.machinima.com/article.php?article=438), which takes learners through a step by step process at the end of which they will have re-created a 30 second movie clip based on the battle scene near the end of *Lord of the Rings: The Fellowship of the Ring*, using the *Neverwinter Nights* role playing game engine. Given access to two copies of *Neverwinter Nights* and two networked PCs (and a friend to drive the second machine), the tutorial takes beginners to the point where they can decide whether the pursuit is for them. (Some knowledge of the game itself as well as some basic computing savvy is necessary for understanding elements of the production process and for making decisions about such things as what audio to add.)

The 'new"

We want to argue that for the purposes of talking about learning or education under contemporary and foreseeable conditions 'the new' can usefully be understood in terms of what we call 'new technical stuff' and 'new ethos stuff' (Lankshear and Knobel 2006). We see this as constituting the *ontology* of the current socio-technical conjuncture.

New "technical stuff"

Much of what is germane to "new technical stuff" is summarized in Mary Kalantizis' idea that "You click for 'A' and you click for 'red'" (Cope et al. 2005: 200). Basically, programmers write source code that is stored as binary code (combinations of 0s and 1s) which drives different kinds of applications (for text, sound, image, animation, communications functions, etc.) on digital-electronic apparatuses (computers, games hardware, CD and mp3 players, etc.). Someone with access to a fairly standard computer and internet connection, and who has fairly elementary knowledge of standard software applications can create a diverse range of meaningful artefacts using a strictly finite set of physical operations or techniques (keying, clicking, cropping, dragging), in a tiny space, with just one or two (albeit complex) "tools." They can, for example, create a multimodal text and send it to a person, a group, or an entire internet community in next to no time and at next to no cost.

Diverse practices of "remixing"—where a range of original materials are copied, cut, spliced, edited, reworked, and mixed into a new creation—have become highly popular in part because of the quality of product it is possible for "ordinary people" to achieve.

Machinima animations are a good example of what we mean here. Until recently such productions required expensive, high-end 3D graphics and animation engines that were usually the preserve of professional animators. Currently, a laptop computer, a $30.00 dollar game (e.g., The *Neverwinter Nights* Diamond Pack), video and audio editing software (often part of the software bundle that comes with a new computer), and some free video recording software (e.g., Fraps) provide ample resources for creating polished animated movies.

Music remix practices are another good example of hobbyists being able to produce high-quality artifacts, this time in the form of audio files. Software that comes bundled with most computers allows users to convert music files from a CD into an editable format (e.g., *.wav), edit and splice sections of different songs together and to convert the final music files back into a highly portable format (e.g., *.mp3) and upload them to the internet for others to access or, alternatively, use them as background soundtracks in larger do-it-yourself multimedia projects.

These are some typical examples of the kinds of technological trends and developments we think of as comprising new technical stuff. They represent a quantum shift beyond typographic means of text production as well as beyond analogue forms of sound and image production. They can be employed to do in new ways "the same kinds of things we have previously known." Equally, however, they can be integrated into literacy practices (and other kinds of social practices) that in some significant sense represent *new* phenomena. The extent to which they are integrated into literacy practices that can be seen as being "new" in a significant sense will reflect the extent to which these literacy practices involve different kinds of values, emphases, priorities, perspectives, orientations and sensibilities from those that typify conventional literacy practices that became established during the era of print and analogue forms of representation and, in some cases, even earlier.

New "ethos stuff"

The idea that many contemporary social practices involve new "*ethos* stuff" from that which often characterized earlier ways of doing things refers to the intensely "participatory,"

"collaborative," and "distributed" nature of many current and emerging practices within formal and non-formal spheres of everyday engagements. We understand this difference in "ethos" between conventional and new literacies in terms of a much larger historical and social phenomenon that involves the emergence of a new kind of mindset (Lankshear and Bigum 1999, 457).

The idea of the emergence and evolution of a new mindset is evident in the difference between people who approach the contemporary world through what we call a "physical-industrial" mindset, on the one hand, and those who approach it through a "cyberspatial-postindustrial" mindset, on the other. New "ethos stuff" broadly reflects the second mindset.

Mindset 1	**Mindset 2**
The world basically operates on physical/material and industrial principles and logics. The world is "centered" and hierarchical.	The world increasingly operates on non-material (e.g., cyberspatial) and post-industrial principles and logics. The world is "decentered" and "flat."
• Value is a function of scarcity	• Value is a function of dispersion
• Production is based on an "industrial" model o Products are material artefacts and commodities o Production is based on infrastructure and production units and centers (e.g., a firm or company) o Tools are mainly production tools	• A "post-industrial" view of production o Products as enabling services. o A focus on leverage and non finite participation o Tools are increasingly tools of mediation and relationship technologies
• The individual person is the unit of production, competence, intelligence	• The focus is increasingly on "collectives" as the unit of production, competence, intelligence
• Expertise and authority are "located" in individuals and institutions	• Expertise and authority are distributed and collective; hybrid experts
• Space is enclosed and purpose specific	• Space is open, continuous and fluid
• Social relations of "bookspace" prevail; a stable "textual order"	• Social relations of emerging "digital media space" are increasingly visible; texts in change

Table 1: Two mindsets
(Lankshear and Knobel 2006: 38)

Much of what might be regarded as new "ethos stuff" in contemporary practices is crystallized in current talk of "Web 1.0" and "Web 2.0" as different sets of design patterns and business models in software development, and in concrete examples of how the distinction plays out in real life cases and practices mediated by the internet.

Web 1.0	**Web 2.0**
Ofoto	Flickr
Britannica Online	Wikipedia
Personal websites	Blogging
Publishing	Participation
Content management systems	Wikis
Directories (taxonomy)	Tagging ("folksonomy")
Netscape	Google

Figure 1: Web 1.0 and Web 2.0 (adapted from O'Reilly 2005: no page)

The first generation of the Web has much in common with an "industrial" approach to material productive activity. Companies and developers worked to produce artefacts for consumption. There was a strong divide between producer and consumer. Products were developed by finite experts whose reputed credibility and expertise underpinned the take up of their products. Britannica Online stacked up the same authority and expertise—individuals reputed to be experts on their topic and recruited by the company on that basis—as the paper version of yore. Netscape browser development proceeded along similar lines to those of Microsoft, even though the browser constituted free software. Production drew on company infrastructure and labour, albeit highly dispersed rather than bound to a single physical site.

The picture is very different with Web 2.0. Part of the difference concerns *the kind of products* characteristic of Web 2.0. Unlike the "industrial" artefactual nature of Web 1.0 products, Web 2.0 is defined by a "post-industrial" worldview focused much more on "services" and "enabling" than on production and sale of material artefacts for private consumption. Production is based on "leverage," "collective participation," "collaboration" and distributed expertise and intelligence, much more than on manufacture of finished commodities by designated individuals and

workteams operating in official production zones and/or drawing on concentrated expertise and intelligence within a shared physical setting.

The free, collaboratively produced online encyclopedia, Wikipedia.org, provides a good example of collaborative writing that leverages collective intelligence for knowledge production in the public domain. Whereas an "official" encyclopedia is produced on the principle of recognized experts being contracted to write entries on designated topics, and the collected entries being formally published by a company, Wikipedia entries are written by anyone who wants to contribute their knowledge and understanding and are edited by anyone else who thinks they can improve on what is already there. Wikipedia provides a short policy statement and a minimal set of guidelines to guide participants in their writing and editing. It is, then, an encyclopedia created by *participation* rather than via publishing; it "embraces the power of the web to harness collective intelligence" (O'Reilly 2005: no page).

The ethos is to reach out to the entire Web for input, through limitless participation, rather than the more traditional belief that expertise is limited and scarce, and that the right to speak truths is conferred on only the "properly credentialed." The idea is *not* that anyone's opinion is as good as anybody else's but, rather, that anyone's opinion may stand until it is overwritten by someone who believes they have a better line, and that the right to exercise this belief is not constrained. This, then, is collaborative writing supported by the "technical stuff" of a "wiki" platform or some other kind of collaborative writing software like Writely.com (or similar). It builds on distributed expertise and decenters authorship. In terms of ethos it celebrates inclusion (everyone in), mass participation, distributed expertise, valid and reward-able roles for all who pitch in. It reaches out to all of the Web, regardless of distinction.

Many popular literacy practices—like fanfiction, fan manga and anime, and online gaming—reflect Wikipedia's commitment to inclusion, collaboration, and participation, while going somewhat further in explicating what counts as successful performance and providing guidelines for participants. Gee (2004) and others (e.g., Black 2005, 2006, 2007; Lankshear and Knobel 2006: Ch. 3) describe how participants in various online affinity spaces (Gee 2004) share their expertise, make as explicit as possible the norms and criteria for success in the enterprise, and actively provide online real time support for novices and, indeed, participants at all levels of proficiency. These range from statements about how to develop plausible characters and plots in fanfiction, to elaborate walkthroughs for games produced for the sheer love of the practice and shared with all online. The practice is marked by generosity and a sense that the more who participate the richer the experience will be. In terms of "ethos," the ontology of practices like blogging, writing fanfiction and collaborating in Wikipedia celebrate free support and advice, building the practice, collective benefit, co-operation before competition, everyone a winner rather than a zero-sum game, and transparent rules and procedures.

Significance of what is 'new' for academic and scholarly activity

The "new" has significance for three dimensions of academic and scholarly activity. First, it has significance for the teaching and learning aspects of our work. Second, it has significance for our research. Third, it has significance for what we might call wider institutional aspects of our work. We will look at some examples of significance for these three dimensions in turn.

Significance for teaching and learning aspects

- Teaching and learning as knowledge *production*

New literacies and cultural practices like machinima emphasize a *production* orientation, and one that has a view to emulating expertise (to being/doing the best one can. In this regard Gee talks 2007 about parallels between the "win states" of gamers and those of scientists as being qualitatively of a piece.) By contrast, classroom-based teaching and learning, at all levels from K – Coursework Post Grad degrees emphasizes consumption. To the extent that production occurs – in the form of essays or class projects – this tends to occur at what Chris Bigum calls "the fridge door" level. This is the idea of pseudo-production in contexts where there are no real end-users. By contrast, the "new" practices evolving at the interface of new technical and new ethos stuff has (voting, commenting, feed-backing) end users, such that there are major incentives to "get competent or else be disappointed". The net effect so far as learning and teaching is concerned is that practitioners are involved in production that is often collaborative and that pitches to authentic audiences committed to peer review and critique, and where expertise is close to hand in time and space.

- G/games: the game in the box vs Game as game in the box + social and learning system

Wider implications and understandings of this cultural production orientation are addressed by Jim Gee (2007). For example, he distinguishes between 'the game in the box' and the combination between 'the game in the box' and 'the social and learning system that is built around the game'. He calls the latter the Game (with a capital 'G'), and it is the Game that we need to focus on when thinking about learning. When thinking about 'effectiveness' in relation to games and learning, we need to home in on 'the effectiveness of the whole system' and not simply question the effectiveness for learning of 'the game in the box'. While Gee is talking about literal games, the distinction works equally well for "boxed" machinima resources (e.g., what is made available via the material resources of the ROM in the box) and the burgeoning fan spaces for machinimists.

When Gee refers to the social and learning system built around a game he is referring to the peer affinity spaces and resources developed and shared within affinity spaces online, in physical settings, and the various 'communities', and 'social relations' and 'discourses' (ways of being and talking and acting and valuing) and identifies, etc., that evolve around them. Within such spaces and discourses fans of games share information and strategies, practice modeling and mentoring in co-play, and generally communicate in ways that build the affinity in terms of scale and sophistication. While Gee's examples draw on gaming, many of his points and applications pertain equally to fan practices where fandom is expressed in production. The machinima tutorial referred to earlier is just one small example of a resource made available to aficionados and, as such, is a token of the elaborate systems of resources documented for fan practices ranging from games to fan fiction via Anime-Music-Video remixing and so on. Other resources for learning, like community online forums and feedback on creations abound in affinity spaces. In short, this is the intersection of 'new technical stuff' and 'new ethos stuff'.

The *social and learning system* built around the 'game in the box' is so important and relevant for becoming successful games players because "success" is integrally linked to thinking and operating like a game designer. To succeed in the game, to become more and more proficient in the game, involves players enacting the game design developed by the games designers, but enacting them to a large extent in their own ways, producing played versions of the games that pursue individual trajectories compatible with the larger design. For many it also means improving on the original game by extending it, "modding" it, producing variations and new levels.

While in principle this might be done by isolated individuals beavering away at the game, in practice it very often isn't. Like the lads in the South Park episode, players become, as it were, "XP" via literal and metaphorical extensions of "team speak". Aficionados share their knowledge – not merely of techniques, but also of aesthetics, cultural values associated with gaming, criteria for gaming-goodness, and the like – within affinity spaces. Expertise is shared, proficiencies are enhanced. Just as literal gaming requires games consumers to become *producers* on various levels (from producing moves in a game to producing enhanced modifications of the games, so becoming proficient within any fan practice involves production that benefits from on demand access to expertise and designer perspectives. Affinity spaces afford access to experts and leaders in the pursuit on a global scale, as well as to peers at all other levels of proficiency.

- The significance of specialist language and situated language

In relation to learning associated with gaming, Gee refers to the tight relationship sociocultural learning theorists recognize between effective learning and particular forms of talk and patterns of participation and interaction, identifying four key facets.

- Distinctive forms of content are connected (hopefully in lucidly functional ways) with distinctive forms of language, connections rendered public in talk
- Learners need to learn to interpret, analyze, debug, and explain their experiences (and the connections between goals and reasoning within experience) – all of which can be rendered public through talk
- Learners need to learn from the interpreted experiences of others, their peers and more expert people in the domain
- Communities of practice are, in part, formed through the sorts of talk that allows for public sharing and joint modeling, building and problem solving.

Here again it is worth recalling Stan's line in the South Park clip about him and his friends 'becoming XP using 'Team Speak' but, as Gee makes clear, there is more going on here than (just) communication in online affinity spaces. Referring to the example of *Yu-Gi-Oh*, a manga-based game popular among children as young as 5 or 6 years, Gee identifies the very specific form of talk – a 'specific register or social language' – required by participants. This language is grounded in the meanings, functions and purposes of *Yu-Gi-Oh* as a social activity. Unlike the situation so often observed in classrooms, where some participants have the 'right' social

language for school learning and others don't, young *Yu-Gi-Oh* players at large can 'discuss and debate with others in this language on common ground'. This is not simply because they have *talked*, however. To a large and important extent it is because 'they have played the game and that play has given them embodied, situated meanings for the language'.

Gee's observation points directly to the importance – obvious enough, but widely ignored in formal pedagogy – of learning in and through material forms of engagement that situate technical specialist language. We are overwhelmed at times by the extent to which this often does not happen effectively even in postgraduate research training, let alone in courses on "theoretical foundations" and the like.

- The limits of Blackboard are the limits of my world

In a recent paper Lambeir and Ramaekers (2006) critique the increasing uptake of learning management systems like Blackboard within universities like their own. They note the extent to which teaching are learning are increasingly being "remade" in terms of engagement with information packaged online around a course webspace. Under such conditions much of what the university "used to be" is displaced. Physical notice boards go online; face to face argument and discussion gives way to 'participation in online forums"; knowledge becomes downloadable, and "being initiated into a scientific domain has come to mean essentially [having access to this downloadable knowledge]. Knowledge loses its connection with research (the ways in which knowledge is acquired by scrutiny) and has become merely a link in the process of obtaining a credit" (2007: 546). Under such conditions as teacher and/or learner, Blackboard constitute the university as a world of learning, and the limits of Blackboard – as with language in the original Wittgenstein – become the limits of the academic's world.

We have much sympathy for Lambeir and Ramaekers' argument, although we think much of it can be applied to conventional classroom-based teaching and learning and seriously backdated. For us the point is less one of face-to-face and physical spatialising of learning than it is of whether learning is produced or consumed, directed to a world or received from packages. Literal blackboards are as much to the point here as are digital ones. This, indeed, is precisely Gee's point about the virtues of lucidly functional and situated language versus the mysterious, unhinged, decontextualised "learning language" of so much conventional educational experience. We ignore at our peril the fact that much conventional academic teaching and learning in the past was as much removed from knowledge production as material engagement with world-related purpose as online Blackboarding is. In many ways we think the juxtaposition is misdirected. It is precisely because teaching and learning has been "blackboarded" so much and for so long that the transition has been as "quick" as it has been.

Instead, the question is more one of how teaching and learning can be organized around material engagements, situations, purposes, and contexts that make possible and plausible the creation and mobilization of affinity spaces and the concrete situating of language such that it becomes lucidly functional. We confidently expect a great deal of un-expert opinion and "undifferentiated mush" to go around in discussion spaces on Blackboard. Plenty of that has gone on in classrooms and tutorial rooms in universities for generations, however, just as students have "done school" for generations. The significance of the "new" that we find at the intersection of new technical

stuff and new ethos stuff is that it provides us with powerful reference points from which to problematise formal learning and to conceptualise – as Gee along with many others engaging in the learning sciences have done – conditions of efficacious learning.

Significance for research aspects of our work

- Sourcing organic intellectuals of the new symbolic order

The emergence and evolution of diverse new cultural practices involving distinctive forms of signification raise many questions about how these practices are (to be) understood from the inside. This puts a premium on sourcing reliable good quality work published by insiders to these practices that endeavor to theorize, explain and describe theoretically how meanings are created and negotiated within these practices. The politics of academic publishing often impede the development of "to hand" literatures that speak, as it were, from the horse's mouth. It is important to recruit young researchers from the ranks of these practices and ensure they are well mentored to become expert researchers and theorists of new literacies. In doing this work it will be crucial not to impose "our" theories and research problematics on "their" sensibilities beyond the minimum necessary to foster the capacity for researching competently. This may mean "training" researchers of high school and undergraduate age – a worthy challenge. Indeed, putting young people to work researching their own practices of meaning making and negotiation – youth as discourse analysts and theorists – might provide one kind of setting within which the kind of efficacious learning described and analyzed by Gee could be realized.

- Grounding our own theory

In what we see as an important intervention, Andrew Burn (2007, in production) distinguishes between proposals for developing new theories of signification appropriate for contemporary conditions of media production and their realization. With reference to Kress and van Leeuwen's (1992) proposal for a merger between cultural studies and a new semiotics that would connect a semiotic analysis of media texts with research into the cultures of those who produced them and those who received them, Burn claims that to the best of his knowledge no such project has yet been realized. Certainly we know of none. Most of what constitutes multimodal analysis to date imposes a social semiotics and concepts of design grounded in static texts modeled on written language as the text paradigm onto artifacts of new media productions. We see two problems with this. First, it stays too close to *text* alone as the basis for analysis and theory. Second, it stays too close to familiar forms of text, whose points of connection with emerging forms of digital media production are, we think, increasingly tenuous.

Like Burn, we see the need to bring insider cultural experiences and subjectivities to bear on analysis and theory, since more and more of the meanings that are produced and exchanged seem to lie outside what is present in the text. Immanence often seems to trump presence, in other words. Theory development henceforth would seem (at least to us) to have to be much more deeply and closely informed by the *cultures* of those who produce and receive them than it has been to date. This means pushing considerably beyond artifacts/texts and into "existential" expressions of data/expressions of "existential" data in order to get at the larger and increasingly intuitive and evocative relations that seem to exist between artifacts and signification. Discourse

analysts and theorists must simultaneously be ethnographers living as fully and richly as they can inside the practices and productions they seek to understand and explain.

- Riding an unfolding dialectic

Obviously, what is "new" does not simply displace what has previously been there. New literacies will not simply displace old ones and more than new technologies simply displace old technologies. The same holds for theory and research methods. The two positions that seem to us to be untenable are those that fail to attend to what is "new" and, conversely, that fail to attend to what is conventional or familiar. Our research and theorizing must build from extant traditions in ways that respond responsibly to changing conditions, to negations of the familiar. This is a matter of trying to track the dynamism of change and resettling in grounded ways: letting data speak, and trying out different approaches to gathering the data we need and making sense of this data. It calls for openness to multiple perspectives and approaches in order to achieve principled coherences – and not merely convenient cobblings (Coiro et al, in press: Introduction). It also calls for being open to methodological and theoretical innovation and experimentation, and to being flexible and responsive at the level of design and method when conditions suggest better approaches to addressing research questions and problems than those initially envisaged.

For example, Kevin Leander (in press) refers to work being undertaken in the "adaptation paradigm" to problematize "the transfer of familiar methods to the Internet" and work toward developing new methods, such as work being developed around problems concerning participant observation. He raises the question about how to develop a connective ethnography around the need to conceptualize our way past binary constructions like online/offline that negate the ways human practices travel seamlessly across 'spaces'. This is a question about how to configure data collection methods and procedures sufficient for ethnographic purposes under changed conditions occasioned by new technical and new ethos stuff. Similarly, Livingstone et al (in press) note that emerging challenges in the field of media and communication research "may require some new approaches to method". They cite use of link analysis (Drezner & Farrell, 2004) to map the blogosphere, the use of experimental observation of the public's searching skills (Hargiatti, 2004), and note a study by Machill, et. al. (2004) that combines random telephone surveying, observation, and experiments to explore public understanding of phenomena pertaining to search engines.

Elsewhere (Lankshear and Knobel 2006) we have conjectured that in the decades ahead a dialectical "struggle" will play out between conventional and "new" literacies, with forms of practice emerging that transcend "pure" instantiations of both. More than easy hybridizations, we think that what will emerge are complex "workings out" of forces in tension. Whether, and to what extent and in what ways, any such dynamic struggle might play out and call for news forms of theorizing and categorization, seems to us to present a worthy object of research attention. During the past few weeks, for example, we have followed the tussle around credentials with respect to Wikipedia editing. The exposure of bogus credentials created some heat in the media and within the Wikipedia community. Jimmy Wales himself was relatively unfazed, holding to his fundamental belief that the substance of a position is independent of credentials. Yet citing credentials still has material impact/significance, it seems, at the level of editorial privileges – which, in the case in question, had been abused. These minor struggles, it seems to us, reflect

material historical forces in tension. They are aspects of jostling epistemes – modern and postmodern; hierarchical and radical democratic; analogue (correspondence) and digital (random intelligibility; 'truth' and 'market'; 'proof/evidence/structure' vs 'voting' and 'rating'). To the extent that 'new' literacies are postmodern literacies, and not simply "anti-modern" literacies, how do we get to "post", and where are we now?

Alternatively, how does the postmodern "win" ground from the modern within media studies and analysis? Where do we see this winning occurring? How can it be documented, described and explained? For example, what happens to concepts like "critical" (as in critical theory, critical literacy, critical media literacy/studies) under the sign of the "new"? In late modernity "critical" often became associated with concerns for issues like "social justice", "eq(al)ity", "distributions of power", and the like – often understood in terms of material benefits. Hence, critical analysis or critical literacy entailed "unveiling" the way media worked ideologically to create or maintain power configurations that allocate goods and benefits differentially along regular lines, in structured patterned ways. Does this change under postmodern conditions of knowledge, politics, and media – where loss of belief in modernist narratives intersects with minimalist civic practices of democracy and new media norms of simulation, hyper-reality, and mass participation in pop cultural identity play?

Significance for institutional aspects of our work

- Gert Biesta on "education and risk"

In *Beyond Learning: Democratic Education for a Human Future*, Gert Biesta (2006) notes the extent to which talk of education has been displaced over the past 15-20 years by a new language of learning. This new language of learning has opened up a particular line of thinking that is antithetical to ways of thinking about education that Biesta believes it is important to keep alive and to 'grow'. While recognizing that the new language of learning has forced attention to a number of issues that needed attending to and that were previously marginalized by (particularly liberal) discourses of education, Biesta argues that the language of learning has generated deep problems of its own.

He focuses on two related problems. One is that the new language of learning underwrites an *economic* conception of education such that learners are supposed/presumed to know what they want and providers are there to give them that and only that. Second, and consequentially, the new language of learning makes it difficult to ask questions about the purpose and content of education outside the terms of 'what the consumer wants' and/or 'what the market wants' (Biesta 2006: 24).

This is in tension with what Biesta sees as a conceptual or necessary link between education and risk. Going hand in glove with the expectation that providers deliver outcomes known in advance and tailor content and 'learning opportunities' to only what learners want is a perceived virtue of minimizing or safeguarding against risk. Yet, argues Biesta, risk is integral to education. Education, he says, only begins when a learner is prepared to take risks. In fact, even the 'safest' learning might have an unexpected consequence. In fact, there can be no such thing as risk free learning. Nonetheless, the new language of learning encourages us to believe that learning

should not involve risks, and insists that risk should be managed to the nth degree by teachers, curriculum and materials developers, internet systems administrators, and so on. Biesta attacks this head on:

> To negate or deny the risk involved in engaging in education is to miss a crucial dimension of education. To suggest that education can be and should be risk free, that learners don't run any risk by engaging in education, or that learning outcomes can be known and specified in advance, is a mis-representation of what education is about (Biesta 2006: 26).

Biesta goes on to talk about education as a practice that necessarily interferes with the sovereignty of the human subject by asking tricky or uncomfortable questions and presenting students with difficult encounters. This is a logical requirement of education as a process of 'allowing students to come into the world' by requiring them to respond to the world in ways that show (and constitute) who they are and where they stand (Biesta 2006: 29-30)

What we have called 'new technical stuff' and 'new ethos stuff' have many connections to and implications for this ideal of education. They greatly amplify the nature and ranges of response that can be made to the world, and the social networks that can evoke and nurture responses. They certainly entail risk. Indeed, 'peddlers of panic' working as education policymakers, education administrators, and hack journalists in search of easy stories target 'the new' for all they are worth in calling for and developing risk aversion strategies. This is not to say that accepting risk entails being rash; far from it. Risk needs to be averted when it is undue. But to stifle risk at the kinds of levels that stupidify the internet, hamper young people's opportunities to practice being safe, and generally insult digital insider sensitivities in the kinds of ways that are routine within so many institutions of formal learning is, in a word, anti-educational. There is a vast chasm between familiar levels of clampdown and anything approximating to undue risk, and in these days anyone who doesn't know the difference here should seriously question their use-by date so far as being 'an education professional' is concerned.

For present purposes it must suffice to say that engagement with worlds of machinima constitute authentic contexts of opportunity to negotiate educationally fruitful risk: to be opened up to the unexpected, to respond to untold dimensions and facets of the world, to enact projects with implications for identity development, and to explore and move between diverse subjectivities. This is not, of course, to say that machinima (or any other fan practice or popular cultural engagement like fanfiction, A-M-V remixing, digital and analogue gaming, etc.) simply gets incorporated into curriculum. This is not the point. The point is to understand, at the levels of principles, concepts and theory, the kinds of qualities and strengths for engaging human beings in effective and "deep" (Gee 2007) learning that such pursuits embody through the "systems" they constitute, recruit and enact, and to consider how these might be enlisted within formal learning. How do we bring the fruits of learning sciences, as realized in so much of the new popular culture (See Appendix) to formal learning: that is, how do we enlist principles and concepts like "affinity spaces", "specialist language", "situated language", "timely and informed feedback", "system thinking", "interpreted experience", etc., in formal learning activities and actively build them into formal learning? The educational point is not to teach and learn machinima but, rather, to learn *from* how machinima engages so much human energy and

interest, and does its "teaching and learning stuff" so effectively. Beyond that, of course, there are indeed numerous points within an academic curriculum where skills, understanding, values, standards, criteria, interpretation, discursive appreciations, identity work, system thinking, etc., that are integral to machinima have quite direct and specific application within expansive conceptions of computing studies, art and film studies, literary appreciation, and so on.

- Some rights reserved: Building creative commons and resisting institutional ownership

Lessig's point that on the internet, without exception, 'every use of a copyrighted work produces a copy' (Lessig 2004: 143). This 'single arbitrary feature of a digital network' carries massive implications, including the fact that it ups the ante exponentially for copyrighting and for the ways educational institutions think about intellectual property and encourage their employees to think about intellectual property. This extends to locking up content on password protected sites and otherwise limiting the exchange and dissemination of ideas. If all of the internet behaved the way universities do there would be no viable affinity spaces, no massive online collaboration, participation, community building; no free exchange, no celebration of generosity. The fear – born, we suggest of losing the capacity to "get over ourselves" because we are being encouraged to take ourselves altogether too seriously – that "someone might steal our ideas" would be ubiquitous; a fatuous norm.

While our employers can and do have the power and contractual "right" to require us to lock our courses up, we likewise have the right to publish and disseminate our ideas in our own spaces, in our own ways and on our own time. We think it is important to do this, to establish the kinds of web presences that become opportunities to share ideas, have our thinking reviewed critically, and to generally help build spaces of non-commodified thought and information. This extends, in publishing, to pushing for open access, for creative commons licences, and the like. It may mean looking for publishers who will allow open access to works that are simultaneously published for profit. Running a blog, a website, participating in online forums, and generally ensuring that we liberate as much as we honorably can of what learning institutions and for profit media will otherwise lock up become important aspects of our work as intellectuals and educators. This is not always possible – as where we have signed contracts to keep certain information secure. But if we actively seek to minimize the number and extent of such contracts and to find creative, but honorable, ways to make the benefits of our own learning opportunities available to others who wish to avail themselves of these, we will be practicing healthy politics of knowledge and information; something the world of education sorely needs right now.

References

Biesta, G. (2006). *Beyond Learning: Democratic Education for a Human Future*. Boulder & London: Paradigm Publishers.

Black, R. W. (2005). Access and affiliation: The literacy and composition practices of English language learners in an online fanfiction community. *Journal of Adolescent & Adult Literacy*. 49 (2): 118-128.

Black, R.W. (2006). Language, Culture, and Identity in Online Fanfiction. *e-Learning*. 3(2): 170-

184.

Black, R. W. (2007). Digital Design: English Language Learners and Reader Reviews in Online Fiction. In M. Knobel and C. Lankshear (Eds), *A New Literacies Sampler*. New York: Peter Lang.

Burn, A. (in press). The case of Rebellion: Researching multimodal texts. In. J. Coiro, M. Knobel, D. Leu, and C. Lankshear (Eds), *Handbook of New Literacies Research*. New York: Taylor and Francis.

Cope, B., Kalantzis, M. and Lankshear, C. (2005). A contemporary project: An interview. *E-Learning* 2, 2: 192-207. wwwords.co.uk/elea/content/pdfs/2/issue2_2.asp#7 (accessed 3 April, 2006).

Gee, J. (2003). *What Video Games Have To Teach Us About Learning and Literacy*. New York: Palgrave.

Gee, J. (2004). *Situated Language and Learning: A Critique of Traditional Schooling.* London: Routledge.

Gee, J. (2007). *Good Video Games and Good Learning: Collected Essays on Video Games, Learning and Literacy*. New York: Peter Lang.

Hancock, H. (nd). "Neverwinter Nights Machinima Tutorial" at http://www.machinima.com/article.php?article=438

Lambeir, B. and Ramaekers, S. (2006). The limits of "Blackboard" are the limits of my world: On the changing concepts of the university and its students. *E-Learning* 3, 4: 544-551.

Lankshear, C. and Knobel, M. (2006). *New Literacies: Everyday Practices and Classroom Learning*. 2nd edn. Maidenhead & New York: Open University Press.

Leander, K. (in press). Toward a connective ethnography of online/offline literacy networks. In. J. Coiro, M. Knobel, D. Leu, and C. Lankshear (Eds), *Handbook of New Literacies Research*. New York: Taylor and Francis.

Lessig, L. (2004). *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York: Penguin.

Livingstone, S., van Couvering, E. and Thumim, N. (in press). Converging traditions of research on media and information literacies: Disciplinary, critical and methodological issues. In. J. Coiro, M. Knobel, D. Leu, and C. Lankshear (Eds), *Handbook of New Literacies Research*. New York: Taylor and Francis.

O'Reilly, T. (2005). What is web 2.0?: Design patterns and business models for the next generation of software. At: oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html (accessed 4 April, 2006).