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Shifting and Multiple Spaces in Classrooms: An Argument for Investigating Learners' Boundary-Making around Digital Networked Texts

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Abstract

This paper argues that a spatial perspective makes a valuable contribution to understanding the challenges and opportunities associated with integrating digital networked texts in educational contexts. It considers what we can learn by looking at how spaces are constructed within and around such texts in classrooms. In particular, it highlights how a focus on boundaries and boundary-making during classroom literacy events can help us to understand how online activity is connected to and embedded within activity mediated in other ways. This highlights how actions and interactions around texts bound different kinds of spaces and how shifts in spaces may be significant to interactions with texts. Commentaries on two classroom incidents are used to illustrate six propositions which help to describe the fluidity and complexity of spaces produced by learners' actions and interactions around online networked texts. This leads to an argument that, in conceptualising classroom space, we need to both recognise new literacies as 'placed resources' (Prinsloo, 2005) but also see space as continually and multiply rebounded by what happens. This I suggest is important in recognising new pedagogical possibilities and considering the implications of these for classroom practice.

Key words: digital literacy, new technology, classrooms, space, online, Internet, literacy

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Introduction

Notions of space and place inflect the way we think about literacy in schools in various ways. In the United Kingdom, for example, children in many primary (elementary) classrooms are regularly gathered together to sit on carpeted areas of the floor for whole class literacy teaching. Such episodes, frequently centred around the teaching of a specific skill or the analysis or composition of a shared text, are often referred to as 'carpet-time'. Areas of classrooms, therefore, can become associated with certain kinds of literacy practice and both reflect and help construct ways of seeing literacy and literacy users (Comber and Cormack, 1997). Rowe's analysis of a 'writing table' in an early years classroom illustrates this (Rowe, 2008). She notes how the location of the table encouraged children to associate writing with pencil and paper activities, separate from more playful and physical activities situated elsewhere. At the same time, classrooms can be complex sites for literacy. Dyson's seminal research, for example, demonstrates how children re-work classroom literacy tasks to suit their own purposes (Dyson, 2002; 2008) whilst Wohlwend's description of one early years setting explores how children 'reinscribed' classroom discourses creating new spaces for experimentation linked to their own literacy experience and preferences (Wohlwend, 2009). Such work highlights learners' agency in re-interpreting and re-configuring teacher-led activities and classroom resources.

In this paper, I argue that further work exploring the relationship between literacy provision and learners' use of classroom spaces is needed. This, I suggest, is particularly important to debates about how what I call 'networked texts' can be integrated in classroom contexts. By 'networked' I mean texts that are digitally connected. This includes a variety of online texts through which individuals may connect to one another or to other people, places or

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texts. These might include social networking sites, wikis, virtual worlds and other websites and also communication tools such as email or online chat. Over recent years, spatial analyses have made an important contribution to research and theorisation around such texts. Burbules for example has explored the kind of place-making that may occur online (Burbules, 2004) whilst others have considered the significance of the spatial to meaning-making within online and alternate reality environments (Howell,s 2009; Davies, 2006). Arguments related to space and place have been central to policy-makers' calls for greater integration of networked texts within literacy and other provision; they have highlighted the potential to access resources, people and texts from different times and places, and the promise of new spaces for experimentation, participation and creativity (USDE, 2010). Recent studies are helping us to understand the possibilities and challenges of working in such environments in educational contexts. Gillen (2009), for example, outlines diverse literacy practices in the virtual world, Schome Park, whilst Merchant (2009) charts tensions between children's activities within an educational virtual world and more established classroom literacy priorities and practices (Merchant, 2009).

In this paper, I add to this work by arguing that it is important to examine what happens as learners produce and access networked texts *in classrooms*. I suggest that a spatial perspective is helpful to understanding the pedagogical possibilities and barriers associated with using such texts in these contexts. I build on work by Leander and McKim (2003) who propose that online/offline should be seen as over-layered spaces investigated via a 'connective ethnography' (p.218). They argue that, rather than investigating online spaces as fixed and separate environments, it is more useful to look at 'siting' (p.213), or the process through which spaces are established across online/offline environments. In this paper, I suggest that this focus on

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process is an important one and that we need to consider the kinds of spaces that learners may be constructing through and around digital texts in classroom contexts. In developing these ideas, I begin by locating my argument in the context of theoretical perspectives which help to articulate the fluidity of space. Next I use two classroom incidents to make a series of propositions about how learners' interactions with and around networked texts may both construct and reflect space. This leads to an argument for conceptualising space that can help us identify the barriers and opportunities for integrating networked texts in educational contexts.

Perspectives on the fluidity of space

The work of geographers such as Lefebvre (1991) and Soja (1996) has been highly influential in helping us to see space not just as a fixed background to social action but as socially produced. People's interactions are both influenced by their surroundings and help construct the kinds of spaces that emerge. These spaces are also patterned by the ways that different individuals, groups and institutions understand these spaces and their intentions and ideas about how they might be used. This means that, space is highly complex. It may be framed by and reproduce dominant discourses but also be over-layered with other kinds of meaning. If we are to investigate how spaces are significant to people's lives, therefore, we need to recognise that social spaces are hybrid and fluid.

In exploring this fluidity, Massey sees space as a 'sphere of ...coexisting trajectories' (Massey, 2005: 9) recognising that we can trace different narratives and discourses through any single space. In classrooms, for example, we could see space as defined by a variety of trajectories which include:

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- the Victorian drive to separate schooling through bounded classrooms and school buildings (Piem, 2001);
- the 1960s commitment to collaborative learning apparent in open-plan areas and group work areas;
- the introduction of new technologies (itself patterned by diverse trajectories related to the design of educational applications, location of new technologies in school, visions of 21st century learners, and concerns about safeguarding);
- along with all the more personal and localised stories that play out around and so help to construct educational spaces.

Massey also emphasises how spaces as defined by inter-relationships with other spaces, for example through the technological and service infrastructure and through the experiences, memories and imaginations of those that interact with and within them. This problematises the boundedness of space in a different way. If classrooms are connected to other spaces, then it becomes difficult to decide where one space ends and another begins. Massey's notion of place as a 'meeting place'(Massey, 2005) is helpful here. She invites us to think of places not as 'areas with boundaries around' but, 'imagined articulated moments in networks of social relations and understandings' (Massey, 1993: 66). This enables us to see space as an ongoing construction, patterned by local and global priorities and practices and experienced in multiple ways by different individuals and groups. It raises questions about what Massey calls 'openness and closure' of spaces (2005:179) and prompts us to look at the *boundaries* that are erected and who is included and excluded.

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In this paper I argue that a focus on the process of boundary-making around digital texts can provide valuable insights into the nature and quality of interactions around networked texts in classrooms. I explore how this can draw our attention to the varied ways in which multiple purposes, originating in different times and places and reflecting the priorities of diverse individuals, groups and institutions, may be significant to the kinds of spaces that are produced. In what follows, therefore, I explore the significance of:

- how places are bounded and by whom;
- how this boundedness may shift;
- the part that literacy events may play in this.

Below I use two examples of classroom literacy events to explore why such a focus may be useful in understanding the barriers and opportunities associated with using networked texts, and make a series of propositions about boundary-making around networked texts in classroom contexts.

Investigating boundaries and boundary-making in classroom literacy events: some propositions

The following examples are drawn from a study designed to explore how learners and teachers negotiate networked environments in contemporary classrooms. The study involved observations in four English primary (elementary) school classrooms recorded through detailed field notes. All classes were taught by teachers who were enthusiastic and innovative in their use of new technologies and interested in the implications of this for changing views of literacy. They were committed to the role of participation and collaboration in learning and worked hard to overcome challenges in enabling large groups of children to engage with networked texts

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given limited resources. In summaries of the two literacy events, I note how children interacted with and around networked texts and consequently how different kinds of spaces seemed to be bounded and re-bounded. In the first example, a Year 4/5 class (or 8-10 year olds) were focusing on writing a shared text exploring arguments for and against the building of wind turbines.

Writing a shared text: wind turbines

The previous day, the class had discussed a range of arguments for building wind turbines. On this day, the children worked in groups, each of which had a laptop. The teacher had made a shared document available via the class blog. This contained a table with two headings: 'for' and 'against'. The teacher asked the children to use a selection of pre-selected Internet sites to research possible counter-arguments and note their arguments on the table, which they could access via networked laptops. Anyone could amend the content at any time. The table was also projected onto the interactive whiteboard at the front of the class.

There was a sense of urgency as the children set to work and they seemed keen to complete the task by the end of the lesson. As they did so, however, they faced a number of frustrations and challenges. Some of these related to negotiating composition around a shared laptop: given that only one person could type, children often obscured the screen for the rest of the group as they learned across to add to or change the text. Other challenges arose because they were composing a *shared* document: one group was surprised to see text appearing on the interactive whiteboard and then realised that this was because another group was typing; some contributions were typed in and then apparently deleted by another group; sometimes, as one group saved their contributions, the text disappeared from the other screens.

At one point, the phrase 'block the radar' appeared on the screen in front of a group I was observing. This caused a stir on the table – the children did not know what 'block the radar' meant. Realising that someone else in the class had typed this, one boy wandered round until he found the group responsible and asked them to explain. A boy from the second group stood up to do so: facing the other boy, he used his arms to represent the turbine and mimed how radar could be blocked by the moving blades. This occurred in the (usually unoccupied) space between the tables. Once happy with the explanation the boy returned to his original table. As he got there, a new suggestion appeared on screen: 'Easy to demolish'. Again he went on a hunt to find out who had written this. This time he seemed more interested in finding the identity of the author than the meaning of the comment.

In commenting on this episode, I want to draw attention to various ways in which boundaries were established, maintained, shifted and dissolved. Firstly, it is worth noting what did *not*

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happen. The children made no references to learning in other subjects, even though there was evidence of this in the texts displayed on classroom walls. They stayed focused on the task set and followed the teacher's instructions closely. In doing so, they seemed to accept that what they did in this lesson would build on what happened the previous day in the same subject. They also seemed to accept that this might be separate from other activities completed in lessons for other curricular areas, even though those lessons would be conducted in the same classroom. In this way, the children's activities and responses helped to maintain a 'classroom' that was organised in certain ways in space and time. This is important in indicating the significance of the material in helping to uphold established practices. Miller, draws on Bourdieu's work on the relationship between materiality and practice (Bourdieu, 1990) to explore how the physical environment is often aligned to dominant discourses: 'much of what makes us what we are exists, not through our consciousness or body, but as an exterior environment that habituates or prompts us' (Miller, 2010: 51). Notably, the children also self-regulated their virtual activity. Whilst the laptops were loaded with a range of programs and provided access to the Internet, the children only accessed sites listed via the blog and did not search beyond these. None, for example, took the chance to visit favourite sites or follow up areas of personal interest. The children challenged neither the material boundaries represented by the classroom walls nor the textual boundaries set by the carefully framed internet task. They drew on well-established routines and expectations about how they operated within the classroom and the kinds of literacy that were relevant there. This leads to my first proposition: *boundary-making associated with established classroom practices will be significant to learners' engagement with networked texts in classrooms.*

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Of course these spaces may be inflected by both official and unofficial discourses that intersect in various ways. In illustrating this, it is worth noting some boundary-making I observed in various schools that seemed associated with established literacy practices. Despite repeated attempts in the UK (as elsewhere) to promote the role of collaboration in supporting reading and writing, significant time and attention is devoted in primary schools to individual literacy outcomes. These are particularly important to teachers and schools given high stakes testing linked to school accountability. Maintaining individuality in authorship and readership is challenging in a small classroom containing a large number of people. Yet learners observed during the study still managed to maintain individual spaces. Often this was achieved partly by children physically demarcating personal spaces using the paraphernalia of print literacy – pencil cases, rulers, 'reading books' and so on. Such objects incidentally not only marked out their space but imported what we might see as *identity markers*: interests, favourite colours, heroes and so on, imprinted/emblazoned on stationery items. When children moved tables or chairs, they took this pile of stuff with them, re-establishing a personal space in a new location. Dyson's work provides compelling accounts of the varied ways in which children bring their worlds with them into the classroom (Dyson, 2002; 2008). In this case, the children seemed to take their worlds with them as they moved around the classroom, generating portable individualised places.

Notably, the use of laptops challenges this focus on individualised spaces and may prompt shifts in how learners engage in reading and writing. Lack of funding means that equipment is often shared, as in this classroom, and this may lead to more collaborative approaches. Moreover, classroom computers are institutional and collective, lacking the features

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that may personalise home computers to learners and/or their families- wallpapers, screensavers, bookmarked favourites and so forth. At school, learners may have personalised folders to save their work but these sit alongside the folders belonging to other children and their teacher. Also, the orientation of screen-based texts - displayed upright rather than flat on a table - means that learners can easily see and comment on one another's work. Notions of authorship and ownership are looser than when composing on paper. Of course those children that access computers at home –by no means all children - may also be sharing screen spaces with family members. My point here is that this is all significant to boundary-making, to the kinds of spaces created around digital texts. The extent to which learners make decisions about where and what they access and compose; how they go about this and who with, will all be relevant to the kind of space that is produced. All this leads to my second proposition: that *the process of reading and composing on screen may work to bound spaces in ways that challenge the conventions of some common school literacy routines.*

In this case, the children placed their laptops on the group tables – one per group of four children –and gathered round to see the small screen. This presented the text vertically, and the shape of the laptop created a fourth wall to the group's space. No-one sat behind the laptop and those on the edge of the group had to stretch and lean across, resting their arms on the table and each other rather than sitting separately in chairs as they normally would. There was little spoken negotiation here, either about where they sat or who used the keyboard and mouse. It seemed that 'working in a group round a computer' was an established classroom activity and the children quickly settled into that routine. Of course, more fine-grained, multimodal analysis (Taylor, 2006) may have yielded subtler insights into how interactions were managed and the power

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relationships that were enacted here. It did seem though that their use of space helped to bound the activity in different ways: individual authorship was replaced by group composition (even if certain individuals ultimately dominated this process). What I want to focus on particularly, however, is what happened when the shared document changed in front of their eyes. This happened as others in the class made amendments or as technical glitches meant that the technology itself was seen by participants as adopting a mischievous role (perhaps poltergeist-like), deleting text ad hoc and bringing a randomness and riskiness to the carefully ordered space planned by the teacher.

These amendments and deletions not only disrupted anew the children's notions of authorship but also seemed to disrupt other classroom relations. In this, as in many primary classrooms, literacy is primarily an activity associated with sitting not standing and children are expected to stay at allocated tables. However, in response to this incident, children formed and re-formed groupings as they negotiated the task. One boy's impromptu meeting with a member of another group created a new location for interacting around texts. As he wandered off to search for the author of the 'block the radar' comment, he seemed to expand the space within which he worked. The changes in textual space disrupted the ordered distribution of children in groups at tables and indeed new routines started to develop: after he had been successful once, the boy set off again. This illustrates a third proposition that *boundaries can shift from moment to moment.*

Moreover, the opportunity to discuss *between* tables opened up new possibilities for meaning-making. The second boy had more room than at the cramped table. He was able to stand and use gesture to recreate what he had read on screen, miming how the turbine could

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'block the radar', something that would have been difficult in the tight space around the laptop. Work exploring possibilities associated with screen-based texts often focuses on the possibilities for making meaning multimodally, using images, hyperlinks, sound and so forth. What this example illustrates is the significance of opportunities for multimodal meaning-making in physical space. Multimodal analyses of classroom interactions (Kress et al 2001; Taylor, 2006) have highlighted how classroom spaces and resources are significant to the kinds of meanings that are made. In this case, the process of working with a networked text in a classroom seemed to generate possibilities that were different from what might have happened had children been contributing to the text at a distance. For at least two children it led to embodied meaning-making as they met up away from screens. My fourth proposition then is: *disruptions to classroom spaces may be linked to new possibilities for meaning-making.*

My description of this incident is based on observations of what happened- on how individuals moved through and interacted with the objects and people that were present with them. This draws attention to two aspects of the boundary-making that may have been happening. Firstly it focuses on how spaces were bounded within the confines of the classroom. Secondly it privileges a chronological account of moment-to-moment changes. There may however have been all sorts of other ways in which this event was bounded. Massey's notions of inter-relatedness and multiple trajectories encourage us to see any event as multiply bounded at any moment. We can illustrate this by referring briefly to a second classroom literacy event.

Reading a shared text: Google Maps

A class of Year 5 children (aged 9-10 years) were sitting on chairs in rows in front of the electronic whiteboard. The class were investigating the 2011 New Zealand earthquake as part of a project on Natural Disasters.

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> The teacher began by asking them where New Zealand was and one child told her that it is next to Australia. The teacher took a plastic blow-up globe from the shelf behind her and pointed out the location of the United Kingdom and New Zealand. As she was doing this, a child entered from another class and asked if any child had a PE kit she could borrow. *['PE kit' is a term used commonly in England to refer to the clothes worn for physical education or sports lessons.]* One child volunteered hers, fetched it and passed it over.
>
> Meanwhile the teacher continued with the lesson. She projected Google Maps onto the screen in front of the children and zoomed in on New Zealand. Meanwhile, one child asked, 'Shall we turn the lights off?' The teacher agreed that this was a good idea and the child did so. As they looked at the map of New Zealand, the teacher invited the children to make comments and ask questions based on what they could see. These included:
>
> > 'In Year One we used to have this person called Keaton and he lives in New Zealand and he might be killed.'
> >
> > 'My next-door neighbour- he might be able to move out there.'
> >
> > 'My mum's got an i-pod – she can see the whole world and it spins round'
> >
> > 'And I went on Google Earth at home and you can play with it.'

In this incident, we see actions and interactions which suggest that this space was simultaneously bounded in different ways. In grand terms we could see the projection of the New Zealand map as extending the boundaries of the classroom - just as the policy-makers suggest – to include distant places (something developed later in the lesson when the children accessed CCTV footage and insider accounts from the earthquake zone). More mundanely, the enquiry about the PE kit established the classroom within the wider school community; the interruption to the lesson was not discouraged and it was accepted that children would share personal belongings. There were commonly held understandings about ownership and management of other objects too - such as the globe and the light switch – about who owned them, what was permitted and what was not. Access to the text- in this case, Google Maps - happened in this context. Like the children in the previous example, these children's interactions with the website were shaped by expectations about how texts are used in school spaces. They did not suggest 'playing' on

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Google Earth or searching other sites as they might do at home. Instead they waited for the teacher to direct them to a particular part of the site. All this seemed to help establish a particular kind of educational space that the children and teachers worked together to sustain. Interactions with the website were both shaped by and helped shape this space.

At the same time, boundaries may shift in other ways that may be significant in different ways for individual children. We see this in the comments children made as they connected what was happening to their own experience. The teacher's willingness for children to comment allowed in various references to experience beyond the classroom. For one, the image of New Zealand prompted anxieties about a friend whilst another linked it to a neighbour's plans to emigrate. Two more were reminded of other experiences of digital texts- of a parent's i-pod and of less formal interactions with Google Maps. In responding to the images made available through the website, the children did not just make connections with unfamiliar times and places (to New Zealand and the recent earthquake) but were prompted to make other kinds of connections linked to more immediate experiences in familiar, physical worlds. The significance of felt place/space to meaning-making is highlighted by Mackey's work which explores how space and place are deeply bound up with our experience of texts, exploring for example the various ways in which a local setting may inflect readings of childhood texts or provide a stage for playing out meanings and consequently become part of those meanings (Mackey, 2010). The projection of this map may have prompted all kinds of felt connections for these children with other experiences within and beyond school. The 'classroom' described could be seen as spreading in different ways for individual children. This helps to see educational spaces as not just shifting from *moment-to-moment* but shifting from *individual-to-individual* or *group-to-*

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group. This leads to a fifth proposition: *classroom spaces may be bounded differently for different individuals and groups.*

Boundary-making practices & literacy practices

A focus on boundary-making is important to our understanding about the barriers and opportunities associated with networked texts in educational contexts because it helps us to focus on what happens as digital texts are introduced to classrooms. Networked texts do not just generate new virtual spaces but are experienced within more immediate physical environments. We see this in the first two propositions:

- *Boundary-making associated with established classroom practices will be significant to learners' engagement with networked texts in classrooms.*
- *The process of reading and composing on screen may work to bound spaces in ways that challenge the conventions of some common school literacy routines.*

We need to recognise the significance of experience within these physical places- and of other physical places evoked by networked texts- when we look at the use of networked texts in classrooms. This emphasis on looking at what people do around networked texts reflects Prinsloo's idea that 'the new literacies are best studied as resources situated by social practices that have local effect' (2005: 87). He argues that we need to see new literacies as 'placed resources' and 'make an effort to understand local cultural processes, meanings and symbolic processes, in a way that is sensitive to local variation' (Prinsloo, 2005:94). By looking at boundary-making, we can focus on the interactions associated with networked texts within specific local contexts. We can see how the routines and expectations of classroom behaviour, and schooled literacy practices in particular, are challenged or reinforced when new texts are used.

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At the same time, this perspective prompts us to be wary of defining local contexts too rigidly. The next three propositions suggest that learners' actions, reactions and interactions bound spaces in different ways at different times and in doing so help construct them.

- *Boundaries can shift from moment to moment.*
- *Classroom spaces may be bounded differently for different individuals and groups.*
- *Disruptions to classroom spaces may be linked to new possibilities for meaning-making.*

From this perspective, there is no single local context in a classroom. Sometimes children's actions may uphold the kinds of spaces designed by teachers whilst at others may seem to shift slightly, or be bounded differently. Deleuze's notion of the 'baroque' helps to conceptualise this (Callon and Law, 2002; Deleuze, 1993; Kwa, 2002). Baroque ideas see the world as endlessly complex, problematising common understandings about people's relationships with space. This suggests that,

> there is no distinction between the individual and his or her environment; that many, perhaps most, relations remain implicit; that entities are made out of a myriad of heterogeneous entities; that these in turn are made out of an infinity of other entities, and so on. (Callon and Law, 2004 :4)

From this perspective, 'size and inclusion' are 'effects' rather than givens (Callon and Law, 2004:5). We do not operate within contexts but our actions create the spaces within which we move. By looking at moment-to-moment, individual-to-individual and group-to-group shifts, we can examine how spaces are actively bounded and re-bounded. This highlights a reflexive

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relationship between spatial practices and literacy practices and brings us to a sixth and final proposition:

> *Boundaries are significant to how individuals engage with networked texts but, in turn, what people do with and through texts helps to bound space in particular ways.*

Concluding comments: the importance of boundary-making

This focus on boundary-making risks over-emphasising distinctions between established and new practices and spaces. It could be argued for example that both the moment-to-moment and individual-to-individual shifts in the two incidents described above are minor and that all ultimately work to uphold existing classroom spaces. However, a focus on boundary-making can help to highlight when disruptions do occur and the kinds of possibilities these generate. Whilst here I make no judgments about the kinds of spaces that could or should be encouraged, I suggest that insights into these processes matter to understanding meaning-making and the integration of networked texts in classrooms.

A spatial lens offers an important contribution in helping policy-makers and practitioners understand the opportunities and challenges associated with the use of networked texts. It offers firstly to explain why networked technologies have been used in limited ways in many schools. It draws attention to the kinds of boundaries established by literacy policy and contemporary classroom practices, for example the impact of the rules and conventions that govern how, when and by whom networked texts are accessed. It also draws attention to how learners' responses and activities may help to bound space and this provides insights into the kinds of spaces for learning that may be possible and the kinds of shifts that may be important in generating new pedagogical possibilities.

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At a time when educationalists are seeking ways of using networked texts to facilitate more participatory and collaborative learning opportunities (Jenkins et al, 2006), perspectives which help us investigate patterns of interaction and ownership around and through texts are important. All this will become more important as technologies such as mobile technologies, cloud computing and virtual worlds are used increasingly in schools, further challenging the idea that texts - and the literacy events associated with them- are located in single sites. This means that we need to complement work which considers *how* we might integrate digital texts with work which explores *what happens* as we do so. There is a need for further phenomenological and ethnographic research to explore the shifting and fluid spaces that may be emerging around networked texts in classrooms. We need to know more about: the kinds of spaces that are enabled and how they are bounded in different ways for different teachers and learners; and about how ownership of spaces shifts and who and what is excluded and included as this happens. In particular, and with specific implications for literacy provision, there is a need to know more about the role texts play in all this and what this means for how meanings are constructed.

References

Burnett, C. (2011). The (im)materiality of educational space: interactions between material, connected and textual dimensions of networked technology use in schools. *E-Learning and Digital Media*,. 8,, pp-pp. 214-227.

Bourdieu, P. (1990). *The Logic of Practice*. Oxford: Blackwell.

Burbules, N. (2004). Rethinking the Virtual. *E-learning* 1, 2, pp-pp. 162-183.

Callon, M. & Law, J (2004). Guest Editorial. *Society and Space*, 22, pp-pp. 3-11.

Comber, B. & Cormack, P. (1997). Looking Beyond 'Skills' and 'Processes': Literacy as Social and Cultural Practices in Classrooms. *Literacy*, 31, 3, pp-pp. 22-29.

Cresswell, T. (2004). *Place: A short introduction*. Oxford: Blackwell.

Davies, J. (2006). Escaping to the Borderlands: An exploration of the Internet as a cultural space for teenaged Wiccan girls. In K. Pahl and J. Rowsell (Eds), *Travel Notes from the New Literacy Studies: Instances of* Practice (57-71). Bristol: Multilingual Matters.

Deleuze, Gilles (1993), *The Fold: Leibniz and the Baroque*, London: The Athlone Press.

Dyson, A.H. (2002). *The Brothers and Sisters Learn to Write: popular literacies in childhood and school cultures*. New York: Teachers College Press.

Dyson, A.H. (2008). The Pine Cone Wars: Studying Writing in a Community of Children. *Language Arts*, 85, 4, pp-pp. 305-315.

Gillen, J. (2009). Literacy practices in Schome Park: a virtual literacy ethnography. *Journal of Research in Reading*, 32, 1, pp-pp. 57-74.

Howells, C. (2009). Computer game design and new literacies. presented at ESRC Seminar series: Children's and young people's digital literacies in virtual online spaces, University of Sheffield, November 25th 2009.

Jenkins, H., Clinton, K., Kurushotma, R., Robison, A.J., Weigel, M. (2006). *Confronting the Challenges of Participatory Culture. Chicago: MacArthur Foundation*. [Online.] Accessed 5th April 2010 at URL: http://digitallearning.macfound.org/atf/cf/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF .

Kress, G., Jewitt, C, Ogborn, J. & Charalampos, T. (2001). *Multimodal Teaching and learning: the rhetorics of the science classroom*. London: Continuum.

Kwa, C. (2002). Romantic and Baroque Conceptions of Complex Wholes in Sciences. In J. Law and A.Mol (Eds), *Complexities: Social Studies of Knowledge Practices* (23-52). Durham: Duke University Press.

Leander, K.M. and McKim, K.K. (2003). Tracing the Everyday "Sitings" of Adolescents on the Internet: A Strategic Adaptation of Ethnography across Online and Offline Spaces. *Education, Communication and Information*, 3, 2, pp-pp. 211–40.

Lefebvre, H. (1991). *The Production of Space*. Trans. Donald Nicholson-Smith. Oxford: Blackwell.

Mackey, M. (2010). Reading from the Feet Up: The Local Work of Literacy. *Children's Literature in Education*, 41, pp-pp. 323-339.

Massey, D. (2005). *For Space*. London: Sage.

Massey, D. (1993) Power-Geometry and a Progressive Sense of Place. *In J.* Bird, B. Curtis, T.Putnam, G.Robertosn, L.Tickner (Eds), *Mapping the Future: Local Cultures, Global Change* (60-70). New York: Routledge.

Merchant, G. (2009). Literacy in virtual worlds. *Journal of Research in Reading*, 32,1, pp-pp. 38-56.

Miller, D. (2010). *Stuff*. London: Routledge.

Piem, N. (2001). The History of the Present: towards a contemporary phenomenology of the school. *History of Education*, 30, pp-pp. 177–190.

Prinsloo, M. (2005). The new literacies as placed resources. *Perspectives in Education*, 23, 4. pp-pp. 87-98.

Rowe, D.W. (2008). The Social Construction of Intentionality: Two-Year-Olds' and Adults' Participation at a Preschool Writing Center. *Research in the Teaching of English*, 42, 40, pp-pp. 387-434.

Soja, E. (1996). *Thirdspace: Journeys to Los Angeles and Other Real and Imagined Spaces*. Oxford: Blackwell.

Taylor, R. (2006). Actions Speak As Loud As Words; a multimodal analysis of boys' talk in the classroom. *English in Education*, 40, 3,, pp-pp. 66-82.

U.S. Department of Education. (2010). *Transforming American Education: Learning Powered by Technology. Draft National Educational Technology Plan 2010.* [Online.] Accessed 6th April 2010 at URL: http://www.ed.gov/sites/default/files/NETP-2010-final-report.pdf

Wohlwend, K. (2009). Early adopters: playing new literacies and pretending new technologies in print-centric classrooms. *Journal of Early Childhood Literacy*, 9, 2, pp-pp. 117-140.

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Three Gifts of Digital Archives

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Abstract

This article offers a contemporary re-visioning of the gifts of archival work presented in Susan Wells' renowned "Claiming the Archive for Rhetoric and Composition" in light of digital archives. It advances three new gifts of digital archives: integration, customization, and accessibility. The article argues that teacher-scholars in rhetoric and composition must understand these gifts to design, use, teach, and manage digital archives now and in the future. Literacy in a networked, digital world will increasingly involve the ability to ethically, critically, and effectively create, navigate, evaluate, and use digital archives.

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[E]lectronic archives are changing social relations, institutional policy, and even literacy: how we read, what we read, and even what we produce.

– Galin and Latchaw (291)

The digital era tools have not just begun to transform how we do research with archival sources, but they have also made us much more self-reflective about the meaning of archives. . . . At last, archives have a real opportunity to abandon the role of gatekeeper and invite user participation, interaction, and knowledge-sharing.

– Cox et al. ("Introduction" "Archival")

In two crucial moments during Ron Howard's 2009 movie *Angels and Demons*, Tom Hanks' character, Professor Robert Langdon, descends into the Vatican Archives. Though he had previously been denied access by papal authorities, when the lives of the *preferiti*, cardinals favored to be elected pope, are in danger, urgency prevails. Langdon is allowed to visit to consult Galileo's *Diagramma della Verita* to find the locations of the churches along the "Path of Illumination" where the scheduled killings of the *preferiti* are to occur. Viewers learn how much the archive depends on digital technologies when papal authorities cut power to the archive as part of a systematic attempt to isolate the location of the killer. Langdon and the guard accompanying him are locked in the archive as door operation depends on digital switches and access codes. The oxygen level, electronically controlled for maximum preservation of textual artifacts, is cut. Because the archives are located so far underground, cell phone service does not work. They cannot call for help. They are trapped.

While *Angels and Demons* is hardly a movie about archives, these scenes illustrate the importance of attending to archival technologies. In this movie archival technologies play a key

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role in determining what Langdon and other characters do and what happens to them. Langdon's life and the lives of others literally depend upon his success in navigating the archives. If he does not quickly find the information he seeks about church locations, the *preferiti* will die. If he does not manage to escape being locked in the oxygen-deprived archives, he will die.

Rhetoric and composition[1] researchers' success in using digital archives is hardly as dramatic in the real world as it is in *Angels and Demons*. It is, however, likewise marked by a certain urgency. The life of knowledge production, particularly in the academy, depends upon digital archives as the texts we study and produce—and that define the discipline—increasingly live in these spaces. While the Vatican Archives as depicted in the movie house print texts and artifacts controlled and preserved by digital technologies, I contend it is ever more *digital* archives that are a primary site of research and writing activity. Our pedagogy, scholarship, and disciplinary identity are inextricably bound up in the digital archives we use today and design for the future. If we view the Web itself as "the most important archive ever created" (Miller and Bowdon 594) or "the largest document ever written" stored in a digital archive (Gitelman 128), we and our students daily serve as archivists and archival researchers. Therefore, it behooves us as rhetoric and composition teacher-scholars to understand digital archives' potentials. This knowledge allows us to make informed decisions in using digital archives for our classes, institutions, and discipline.

Revisiting Wells' Gifts of Archival Work

[1] I use the term *rhetoric and composition* in this article to refer to the discipline also known as *composition studies* and *writing studies* because this is the term Susan Wells uses in her essay, and I build on her argument in this article.

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In "Claiming the Archive for Rhetoric and Composition," Susan Wells advances what she calls "three precious gifts" of archival work for rhetoric and composition: resistance, freedom, and possibility (58ff). Her discussion fruitfully raises our awareness of what archival work can mean for the legitimacy of rhetoric and composition research. However, like much archival scholarship in the field, which primarily focuses on archival texts, policies, and research practices, it does not explicitly consider archival *technologies*. Digital archives are playing an increasingly important role in the texts we access, use, and create and, in turn, are shaping the ways we think about, write, and research texts. Thus, we need to add to research on archival texts and practices studies of archival technologies. To that end, this article revisits Wells' gifts to explore how they manifest themselves in digital archives. It then advances what I call three new gifts[2] of digital archives: integration, customization, and accessibility. The digital archive examples and tools I use to illustrate these gifts may change, but the gifts they evidence will likely characterize digital research spaces well into the future. These gifts, therefore, are crucial for us to understand to design, use, teach, and manage digital archives for years to come.

Resistance

The first gift of archival work that Wells addresses is resistance. For Wells, the gift of resistance means that archives resist researchers' initial hypotheses. They resist easy answers and force researchers to complicate (and thereby improve) their ideas about what arguments an

[2] I call these digital archive affordances "gifts" to focus on their positive potentials. Certainly, these affordances have limitations. Visual perception theorist J. J. Gibson defines *affordance* as that which an environment provides for an observer's benefit *or* detriment (127). Thus, I do not want to present an overly laudatory view of new computer technologies, as Andrew Feenberg, Gail E. Hawisher and Cynthia L. Selfe, Susan Romano, and other scholars caution against. Adequately exploring these limitations, however, deserves more attention and is beyond the scope of this article.

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archive supports (58). Wells presents the time-intensive nature of print archival work as what allows for the gift of resistance. For her, archives serve as "a counterweight to the headlong pace that the demands of pedagogy have trained us to keep" (59). That is, they encourage thoughtful reflection.

Digital archives likewise offer this resistance. What researchers think they will prove by accessing particular digital archives can change when they study the texts of those archives. Thus, they too can help researchers resist facile conclusions. Digital archives, however, arguably keep up a "headlong pace" (Wells 59) by lessening the time required for retrieving sought archival materials. Engagement with digital archives is usually not as time consuming as work in pre-digital archives. Though finding which search terms to use to yield sought texts can take time, the resistance of digital archives is borne less of time-intensive engagement and more of fast access. As of the time of this writing, for example, JSTOR includes over 3.2 million full-length articles available for viewing. Adding reviews, editorials, and editor introductions, that totals over 37 million pages accessible at a few keystrokes ("JSTOR by the Numbers"). In digital archives researchers do not have to work as hard to find relevant materials; instead they have to work hard to determine which available materials are useful.

This new kind of resistance changes how scholars at all levels, particularly students who are digital natives, think about and approach research. Research becomes less about finding particular texts and more about sorting, assessing, and vetting them. As a result, our research-writing pedagogy needs to shift away from the assumption that we can—and should—control the textual resources students consult. Instead this pedagogy should help students determine the appropriate use of different kinds of texts in different rhetorical contexts. Concomitantly, our

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disciplinary view of scholarship needs to shift away from the belief that rarer, difficult-to-access, gate-kept texts (both objects of analysis and published scholarship) are inherently more "scholarly." We should no longer hold resistance to finding, accessing, and publishing materials as a necessary precondition to rigor. Instead the discipline needs to consider, assess, and value publication and delivery decisions as components of the rhetorical choices scholars make. Like Wells, we should see resistance to our initial, comfortable assumptions about archival contents and scholarliness as a productive element of scholarly work.

In addition to challenging researchers' preconceived suppositions about available materials, digital archives offer another kind of resistance. Digital archives, through their classification systems and search and retrieval functionality, can resist multimodal texts. With few exceptions (e.g., Google Search by Image), words remain the requisite search criteria, and texts require linguistic metadata to maximize search and retrieval possibilities. The renowned William Blake Archive, for instance, has a rather robust image search, but it relies solely on linguistic tags. Researchers need to rely on words for figure types, characters, postures, and attributes rather than sketches or drawings of image elements ("Search Images"). Researchers, in other words, can search *for* images but not *using* images. Such functionality subtly reinforces a hierarchy between these modes, placing words above images. As a result, image and video texts can be more difficult to store and retrieve in digital archives.

This kind of resistance may not seem to be a gift, yet it offers an opportunity for renewed attention to textual materiality and multimodality. It asks us to consider what kinds of scholarship and scholarly activity are privileged by existing textual storage and retrieval systems. English studies' privileging of print scholarship arguably comes partly from—and is exacerbated

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by—archival technologies that make easier storing and retrieving monomodal print scholarship. New digital technologies, such as virtual and gaming worlds where video and audio dominate, might allow for models that accommodate other kinds of scholarly texts and activities, particularly if we can move sentiment away from associating these technologies primarily with play. Gaming systems and virtual worlds that emphasize and rely on embodiment, like the Nintendo Wii and Second Life, make immersive engagement in digital archives conceptually feasible.[3] To exploit the possibilities of such technologies, we need to resist the work-play and scholarly-non-scholarly binaries that structure much of our research instruction and methodology. We need to resist our assumptions not only about what digital archives might prove, but also about what digital archives themselves might be.

Freedom

According to Wells, the second gift of archival work is freedom, more precisely, the opportunity to be free from resentment. Rather than get angry at others' (negative) misperceptions of the field of rhetoric and composition, researchers can point to rhetoric and composition's archives to validate that the field indeed has a history and is legitimate (59). This gift is evidentiary—archival proof that justifies claims that the study of writing has historical roots, follows accepted scholarly protocols, and has rigorous scholarship. The underlying idea

[3] This argument is not entirely new. The 1994 movie *Disclosure* offers one vision of what such interaction might be; however, it continues to use print as the organizing metaphor. Michael Douglas's character, Tom Sanders, puts on virtual reality paraphernalia to replicate the experience of going to a physical archive. He (or, more accurately, his avatar) opens filing cabinets and pages through file folders. Such a model hearkens to familiar experience, but it does not embrace non-print or audio and video texts (at the same time that it relies on them to facilitate the virtual reality immersion).

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here is that archives provide evidence that scholars outside of rhetoric and composition are more likely to accept as trustworthy and reputable.

Digital technologies have certainly facilitated the creation of archives for rhetoric and composition, allowing for larger, more visible, and more comprehensive collections of texts that can legitimize and extend the work of the field. Over ten years ago, in fact, John Brereton lauded the growing rhetoric and composition archive made possible with digital technologies as opening up such opportunities (574ff). These archives are more numerous today and include but are not limited to:

- The National Council of Teachers of English's password-protected online collections of articles from its scholarly journals, including *College Composition and Communication*, *College English*, *English Journal*, and *Research in the Teaching of English*
- Subscription-based archival services like JSTOR, Project Muse, and Science Direct that provide access to full-text articles from scholarly journals in the field
- Open access digital scholarly journals and presses like *Composition Forum, Computers and Composition Online*, *Enculturation*, and *Kairos*; and *Computers and Composition Digital Press* and *The WAC Clearinghouse*, respectively, that serve as their own digital archives and provide searchable collections of the webtexts, book chapters, reviews, and interviews they publish
- Collaboratively compiled public archives, such as the Digital Archive of Literacy Narratives hosted at Ohio State and the National Gallery of Writing hosted at NCTE, which collect textual examples of people's literacy development in multiple media

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- Academic publishers' web sites that provide access to instructional materials contributed and used by rhetoric and composition professionals (e.g., Bedford/St. Martin's)
- Scholars' individual web sites and blogs that provide records of scholarly activity and ongoing conversations surrounding the teaching and study of writing (e.g., Culture Cat, Digital Digs, Virtual Politik)
- Transcripts of conversations from discussion boards devoted to advancing knowledge in the discipline and its subfields (e.g., techrhet, wcenter, wpa)
- Collections of materials discovered, assembled, and studied by rhetoric and composition researchers to support claims about writing, its past, and its future (e.g., H. Lewis Ullman's "The Letters of William B. Anderson to Mary Louisa Anderson, 1862-1864").

These multiple and varied archives provide substantive—and substantial—evidence of the scholarly work of the discipline.

At the same time, they ask us to rethink what constitutes scholarly production as they blur the lines between academic and non-academic texts. In digital spaces, the boundaries around these categories become fluid and texts move more freely between them. At what point, for instance, do blog posts like those of Alex Reid's "Digital Digs" or Claire Potter's "Tenured Radical" transition from personal reflection to scholarly writing? (See Purdy and Walker for more on the scholarly features of such blogs.) This new kind of freedom troubles the easy distinctions that we sometimes draw between scholarly and non-scholarly texts in our research-writing pedagogy and tenure and promotion decisions where we categorize texts as one or the other. Decisions about whether texts "count" are often based on whether texts fall on the appropriate side of the scholarly-non-scholarly binary. To redress this situation, we need to

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conceive of the evidentiary function of Wells' gift of freedom as freedom to include and value multiple kinds of evidence in our frameworks of scholarly activity. Doing so will help us be free not only of the resentment that others can misunderstand our work, but also of the resentment that others will de-value our work.

Possibility

The final gift Wells advances is the possibility of using archives to reconfigure rhetoric and composition as a discipline, to use archives "to rethink our political and institutional situation" (59-60). She, in other words, offers archives as a means to inspire productive change in the field. In citing Jacqueline Jones Royster's *Traces of a Stream* as a model of archival work illustrating this gift, Wells presents this possibility for reconfiguration as arising from the inclusion and incorporation of multiple, varied voices in our archives (63). When we create and study archives of "other" voices, according to Wells, we can learn something about ourselves and shape our disciplinary identity in useful ways.

Digital archives continue to enact this possibility. Not only do they allow researchers to more readily access collections of artifacts that represent "other" voices; they also allow for people representing those other voices to contribute to archives. In digital spaces, people can become both users and producers of archives.[4] Three collections in the Digital Archive of

[4] Axel Bruns argues that one of the distinguishing features of Web 2.0 is the opportunity for people to be what he calls *produsers*, users of digital content who, by interacting with others, actively take control of creating the content they use (21ff). Other scholars call this role *prosumer* (Anderson n. pag., Toffler 233). In my study of Wikipedia, I signal this possibility for audiences to create content by referring to people who engage with Wikipedia as *author-users* (Purdy "When"). For consistency with my earlier work, I use the term *author-user* in this article. Whatever term is used, all point to an important shift in the role people can play in digital archives.

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Literacy Narratives (DALN), for example, include texts created by African American women university professors, deaf and hard-of-hearing people, and undergraduate students of color, three groups whose archives have traditionally been less visible and less studied ("Community List"). People from these groups can contribute their own literacy narratives to this archive so that their voices can be heard—in the DALN's case, literally heard because the archive allows for uploading audio files. In digital archives other voices not only have the opportunity to be included, but also to include themselves.

The possibility for reconfiguration of rhetoric and composition extends still further in digital archives. The legacy of rhetoric and composition as a discipline is inextricably bound up in what we choose to archive and who is responsible for maintaining those archives. Indeed, as Alex Reid, Bradley Dilger, and Derek Mueller pointed out in their 2010 CCCC presentation—and as Gary Hall explains for cultural studies in *Digitize This Book!*—archives shape the identity of a discipline, both for itself and for external audiences. We must, therefore, consider carefully what texts we save, how we organize them, and to whom we make them available. Scholarship in rhetoric and composition is currently archived by a number of different sources depending upon where it is published. These sources include rhetoric and composition professionals (e.g., academics who edit and publish open access journals or maintain their own blogs) and proprietary third-party entities (e.g., NCTE, Elsevier, Ithaka). As digital archives become a (or even the) site of disciplinary formation, the field must make decisions about which of these models to embrace. Because, as Wells reminds us, the archives we study and produce allow us to "rethink our political and institutional situation" (60), these decisions have significant influence. We can choose to be inclusive or exclusive, open or closed, or some combination of these

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options. The affordances of digital archives offer us possibilities to conceive of and conduct our research and teaching in ways that broaden our notion of scholarly activity and include students as researchers. Knowledge of digital archives' new gifts is a fundamental step in embracing these opportunities.

Digital Archives' New Gifts

In addition to extending and modifying the gifts of archives Wells identifies, digital archives also give new gifts that arise from the affordances of digital technologies: integration, customization, and accessibility.[5] Understanding these gifts is crucial to recognize, shape, and advance scholarly activity in rhetoric and composition. In this section I explain and provide brief examples from the Digital Archive of Literacy Narratives (DALN) and Wikipedia[6] to illustrate each gift. As with Wells, the gifts I identify come from use of digital archives. That is, just as resistance, freedom, and possibility arise from engaging with pre-digital archives, so too do integration, customization, and accessibility result from engaging with digital archives. These gifts are not simply inherent characteristics of digital archives. They are potentials to be exploited, and exploiting them allows for moving our perceptual lens from one that privileges scholarly *form* to one that recognizes scholarly *activity*. This desire coincides with that of archival scholars Gesa Kirsch and Liz Rohan, who argue for seeing archival work as lived

[5] See Purdy "Changing" for a discussion of these gifts in a different context.
[6] I chose DALN as an object of analysis because this archive was created by rhetoric and composition professionals to exploit digital archive capabilities. Digital technologies, in other words, are precisely what allow it to function and exist. I chose Wikipedia as an object of analysis because it is one of the world's largest archives and it, too, was created specifically to exploit digital writing and researching capabilities. While not always thought of as an archive, Wikipedia saves each version of an article and the discussion surrounding the writing of that article. Thus, it serves as an archive of the creation of articles for the world's largest encyclopedia.

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activity (and vice versa) (2ff). While digital archives are not their explicit focus, attending to digital archives can reinforce their call to broaden our understanding of what constitutes archival research.

Integration

The first new gift of digital archives is integration. This integration happens in two primary ways. First, digital archives allow writing and researching to occur together in the same virtual space, which frames these activities as integrated parts of knowledge production rather than as separate and separable steps. In DALN, for example, step 3 in the submission process is for author-users to annotate and describe the items they are submitting to the archive. In Wikipedia this integration is even more extensive: author-users can change and offer responses to articles and save these contributions as part of the archive. In both of these spaces, author-users write in the very same spaces where they research. This combination can help us teach research-based writing as responding to (instead of regurgitating) other sources. Integrated archival spaces can help students feel that they have a voice in what may otherwise seem like a limitless quantity of texts without room for a new perspective.

This integration is a gift because in pre-digital archives writing spaces are often physically separated from research resources, which disconnects researching and writing processes. Archivists often understandably discourage writing on (or sometimes even touching) print archival texts because they fear doing so will damage the original texts.[7] Thus, researchers need to write elsewhere (if not in another location, at least on a different surface). Most libraries

[7] This stance is illustrated by another scene in *Angels and Demons* where Robert Langdon is cautioned not to, and then admonished for, tearing a page out of Galileo's *Diagramma della Verita*.

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now have computer labs where patrons can write, an arrangement which begins to connect writing and researching activities, but these labs are typically located away from print sources. Digital archives' spatial integration of writing and researching conceptually links these processes, challenging the idea that knowledge production comes from their separation, research and then writing.

Second, digital archives integrate possibilities for collaboration. They facilitate the co-construction of meaning by offering possibilities for connecting with many other people. In Wikipedia, for instance, author-users can participate in conversations with other contributors on an article's discussion page to question, explain, and justify revisions to that article. Though less explicit in DALN, collaboration is also afforded; author-users can create their own storehouse for submissions, which, along with their comments and annotations, they can share with their students and other researchers. With such spaces, research becomes interactive and communal rather than isolated. In explaining the "I Remain: A Digital Archive of Letters, Manuscripts, and Ephemera" project, Megan A. Norcia provides an elaborated example of how digital archives can facilitate cross-disciplinary collaboration with students and faculty. She asserts, "this collaborative approach, drawing on technology and the richness of primary resources, presents a paradigm shift from the lone scholar model and offers rich fruit for students engaged in literary studies" (92-93). I would argue this fruit extends to student researchers from all fields as well as to professional academic researchers.

This integration of collaborative possibilities is again a gift because research and writing activities in pre-digital archives are more solitary. While researchers can, of course, go in groups to an archive, share their written notes with colleagues, or submit queries and suggestions to an

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archivist, these possibilities are not integrated like they are in digital archives. They require extra effort. By presenting collaboration as a standard part of research-based writing activity, digital archives like Wikipedia and DALN oppose Romantic notions of the solitary genius author and isolated researcher, thereby privileging alternative (and more accurate) models of knowledge production that can empower a broader range of researchers, including students in our classes.

Customization

The second gift of digital archives is customization. Digital archives allow for the creation of personalized research spaces and classification systems, which can make researchers, particularly novice researchers like our students, more likely to see research-based writing as feasible and productive. As Library and Information Science Professor Richard J. Cox and the University of Pittsburgh archives students put it, "The personalization of the reference service is changing from what used to be a broad service into a directed service" ("New"). Author-users, that is, can tailor finding aids directly to their needs and predilections rather than rely only on generic assistance. In DALN, for instance, author-users can assemble, upload, and save their own personalized collections of documents, images, and sound files that they describe and tag as they wish. In explaining step 3 of the submission process, the DALN web site indicates, "Describing each item will provide others a way of finding your literacy narrative in our index once it has been uploaded" ("Step 3"). In this way users themselves determine the terms under which their texts are classified for searching. In Wikipedia this customization extends to existing article content, which author-users can change as they desire. They can add to, delete from, or revise the text displayed on an article's "Read" page as well as provide their own summaries of these

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changes on the “Edit” page. Though changes may not last on the “Read” page, they are forever part of the Wikipedia archive, accessible under a topic’s “View history” page.

Though archival customization is not foreign to pre-digital archives, the customization of digital archives is a new gift. Researchers were not previously able to save search results accessible from multiple locations, create personalized classification systems, or influence the generation of search results. Pre-digital archives require researchers to work within categorical frameworks others established, such as Library of Congress subject headings and Dewey Decimal System book classifications; thus, searches for materials depend on figuring out the keywords, associations, and terminology that make sense to other researchers. In discussing the limits of these imposed, externalized classification systems (both in libraries and Yahoo’s directory), Clay Shirky asserts, “If you want something that hasn’t been categorized in the way you think about it, you are out of luck” (“File”). Certainly, some standardization has merit in bringing consistency, but researchers, especially novice researchers like our students, often find challenging deciphering what can be non-intuitive systems. By applying frameworks that they devise themselves, they can benefit by finding more relevant materials, retrieving sought materials more quickly, and seeing research as an open system to which they can contribute. This customization provides a way for them to deal with the huge quantity of materials available in digital archives, which might otherwise be overwhelming.

Accessibility

The third new gift of digital archives is accessibility. Digital archives eliminate many temporal and spatial obstacles to archival research. In digital archives, researchers can access materials quickly on demand. Retrieving sources can take seconds and searching is possible

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outside particular business hours. The resulting temporal convenience can make archival work more attractive to both experienced and novice researchers because they can conduct research at times most suitable to them. It can, though, also change expectations for what constitutes successful research. For example, researchers can see faster research as better, which can make them discouraged by what may ultimately be productive time-intensive research endeavors.

Researchers using digital archives can access texts from any networked computer. They need not travel to different physical locations or posses special academic credentials to view archival contents. As a result, researchers can consult archival materials more easily. While digital archives may require passwords for login and have contents protected from viewing for copyright reasons, they are arguably less gate-kept than pre-digital archives. For instance, researchers can access in DALN literacy narratives from deaf and hard-of-hearing people, undergraduate students of color, African-American university professors, and community literacy partners as well as access in Wikipedia the history of development of articles on a very wide range of topics. This spatial convenience makes using and teaching digital archival materials more feasible as doing so need not entail traveling or taking students to distant locations. Such accessibility is a gift because pre-digital archive contents are generally less accessible. They are visible only to researchers with requisite qualifications who travel to the physical archive during prescribed times.

Because both getting to and creating archives is easier with digital technologies, this gift of accessibility extends to production as well as consumption. In digital archives, author-users can play a role in producing the archive itself. They can freely contribute content, as in the case of DALN, where author-users are explicitly encouraged to submit literacy narratives. They can

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also shape existing content, as in the case of Wikipedia, where author-users are explicitly encouraged to re-write existing articles. Indeed, neither archive would exist were it not for contributions of the larger public. DALN content is comprised entirely of author-user submissions and Wikipedia articles are all written and edited by the public. As Cox et al. explain, digital technologies allow people "to create new kinds of archives," such as the September 11 Digital Archive, which includes contributes from over 30,000 people from all across the United States: "By making the archives a Web-based one, the entire country can feel they had a role (appropriately so) in establishing this archives [*sic*]" ("Web"). In Wikipedia's case the entire world can play a role in creating a repository of general knowledge. Such opportunities to produce archival content and make it public can lead to a greater sense of participation and ownership in knowledge production, a common goal of research-writing instruction in composition and other classes.

Though the possibility to contribute content certainly existed for pre-digital archives, this accessibility is a new gift because with digital archives such opportunities are more widespread—as are occasions to access contributed materials. In other words, the scale of access is much greater in digital archives. In turn, author-users can more readily draw on this digital content in creating new texts. As scholars who examine the prevalence of and possibility for citation and cut and paste practices online remind us, easier access to textual material can increase the likelihood that that material will be cited (Hall, Tenopir and King) and used (Johnson-Eilola and Selber, Perkel). Digital archives, then, can facilitate not only artifact accessibility, but also conceptual accessibility. Practices of research, rather than being protected, closed, and hidden, are more shared, open, and visible, which makes our publications more

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accessible to audiences both in and outside rhetoric and composition. This visibility also makes the research-writing enterprise more accessible to novice researchers like our students.

The Future of Digital Archives

Seen through the lens of Wells' "three precious gifts" of archival work (58), digital archives ask us to think in new ways about resistance, freedom, and possibility. In particular, they challenge our assumptions about the pace and rigor, evidentiary options and scholarly potentials, and inclusive opportunities and disciplinary influence of archival work. A renewed look at these gifts can help us recognize the value—and knowledge-making potential—of digital practices. Taking into account affordances of digital technologies reveals that digital archives also offer three new gifts: integration, customization, and accessibility. We need to understand these gifts in order to connect researching and writing activities, personalize research spaces, and access and produce more and more diverse textual collections. Further research will need to explore more fully ways in which these gifts manifest themselves in individual digital archives.

Taken together, Wells' gifts seen anew and the three new gifts of digital archives signal that digital archival work is a foundation of knowledge production for researchers at all levels. Such work is not (and should not be viewed as) an isolated activity that is the purview of only a specialized set of researchers. Millions of daily Internet users, including ourselves and our students, are crucial players in digital archives. Literacy in a networked, digital world, then, will increasingly involve the ability to ethically, critically, and effectively create, navigate, evaluate, and use digital archives.

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As teacher-scholars with expertise in the study and production of texts, those of us in rhetoric and composition need to take a leadership role in determining policies and best practices surrounding digital archives. To do so, I suggest we

- Teach digital archives as writing spaces. If we explicitly frame digital archives as locations of writing, we can help connect research and writing processes and situate both as integral parts of knowledge production.
- Emphasize the rhetorical and technological nature of archives. The changes brought by digital archives allow us to highlight for students and the larger public how all archives are rhetorical technologies, shaping as well as preserving texts and artifacts.
- Exploit the collaborative potentials of digital archives (e.g., tag, annotate, respond, converse). Doing so can present research as dialogic.
- Give wide audiences, including students and non-academics, access to digital archival content, including our scholarship. Drawing on Gary Hall's suggestions to create (and recognize as legitimate) open-access journals, we can establish a repository of preprint journal articles per the Harnad/Oppenheim Preprint and Corrigenda Strategy. This strategy asks authors to post online preprints of their articles and note corrections to be made in the final published versions so that they make their research broadly available but do not violate copyright (23, 45-46, 53-54).
- Work with for-profit journal publishers and database services to devise cost-effective university subscriptions and individual article or journal orders.

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- Allow author-users to tag archival contents with their own keywords so that searching is more intuitive and not solely dependent on figuring out the classification systems of others.
- Save archival contents in multiple formats (e.g., .doc, .pdf, .tiff, .jpg) to accommodate different computer systems and technologies.
- Assign each archival text a stable URL. Follow Bradley Dilger's advice to strive for link permanence and approach links as foundational units of discourse in databases.
- Allow for searching via linguistic, visual, and (when technology makes it feasible) audio means. That way author-users will have multiple options to retrieve texts and can retrieve multimodal texts more easily.
- Facilitate inclusion of multiple textual modes (e.g., video, audio) so that researchers are encouraged to use and produce multimodal texts. That way archives can include the full range of texts researchers are increasingly consulting and creating.

These actions should be undertaken in conversation with colleagues in library and information science, computer science, history, and related disciplines who also have a vested interest in digital archives. If we wait for archival policies to be imposed on us by others, we will miss the opportunity, in Wells' words, to truly "claim" digital archives for rhetoric and composition.

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References

Anderson, Daniel. "Prosumer Approaches to New Media Composition: Consumption and Production in Continuum." *Kairos: A Journal of Rhetoric, Technology, and Pedagogy* 8.1 (2003): n. pag. Web. 1 July 2010.

Angels and Demons. Dir. Ron Howard. Perf. Tom Hanks, Ewan McGregor, Ayelet Zurer. Columbia Pictures, 2009. Film.

Brereton, John C. "Rethinking Our Archive: A Beginning." *College English* 61.5 (1999): 574-576. Print.

Bruns, Axel. *Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage*. New York: Peter Lang, 2009. Print.

"Community List." *Digital Archive of Literacy Narratives*. The Ohio State University, N.d. Web. 21 April 2009.

Cox, Richard J., and the University of Pittsburgh Archives Students. "Machines in the Archives: Technology and the Coming Transformation of Archival Reference." *First Monday* 12.11 (2007): n. pag. Web. 30 Nov. 2009.

Digital Archive of Literacy Narratives. The Ohio State University, N.d. Web. 21 April 2009.

Dilger, Bradley. "Mutualizing the Mix." *Conference on College Composition and Communication*. 18 March 2010. Louisville, KY. Presentation.

Feenberg, Andrew. *Transforming Technology: A Critical Theory Revisited*. New York: Oxford, 2002. Print.

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Galin, Jeff, and Joan Latchaw. "Theorizing Raw Archive: A New Paradigm for Academic Scholarship and Publication." *New Worlds, New Words: Exploring Pathways for Writing about and in Electronic Environments*. Ed. John F. Barber and Dene Grigar. Cresskill, NJ: Hampton Press, 2001. 279-306. Print.

Gibson, J. J. *The Ecological Approach to Visual Perception*. Hillsdale, NJ: Lawrence Erlbaum, 1986. Print.

Gitelman, Lisa. *Always Already New: Media, History, and the Data of Culture*. Cambridge, MA: MIT Press, 2006. Print.

Hall, Gary. *Digitize This Book!: The Politics of New Media, or Why We Need Open Access Now*. Minneapolis: U of Minnesota P, 2008. Print.

Hawisher, Gail E., and Cynthia L. Selfe. "The Rhetoric of Technology and the Electronic Writing Class." *College Composition and Communication* 42.1 (1991): 55-65. Print.

Johnson-Eilola, Johndan, and Stuart A. Selber. "Plagiarism, Originality, Assemblage." *Computers and Composition* 24 (2007): 375-403. Print.

"JSTOR by the Numbers." *JSTOR*. Ithaka, 2010. Web. 27 April 2010.

Kirsch, Gesa, and Liz Rohan, eds. *Beyond the Archives: Research as a Lived Process*. Carbondale, IL: Southern Illinois UP, 2008. Print.

Miller, Thomas P., and Melody Bowdon. "A Rhetorical Stance on the Archives of Civic Action." *College English* 61.5 (1999): 591-598. Print.

Norcia, Megan A. “Out of the Ivory Tower Endlessly Rocking: Collaborating across Disciplines to Promote Student Learning in the Digital Archive.” *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture* 8.1 (2007): 91-114. Print.

Perkel, Dan. “Copy and Paste Literacy? Literacy Practices in the Production of a MySpace Profile.” *Informal Learning and Digital Media: Constructions, Contexts, Consequences.* Ed. Kirsten Drotner, Hans Siggard Jenson, and Kim Christian Schroeder. Newcastle, UK: Cambridge Scholars Publishing, 2008. 203-224. Print.

Purdy, James P. “The Changing Space of Research: Web 2.0 and the Integration of Research and Writing Environments.” *Computers and Composition* 27 (2010): 48-58. Special issue on Composition 2.0. Print.

Purdy, James P. “When the Tenets of Composition Go Public: A Study of Writing in Wikipedia.” *College Composition and Communication* 61.2 (2009): W351-W373. Print/Web.

Purdy, James P., and Joyce R. Walker. “Scholarship on the Move: A Rhetorical Analysis of Scholarly Activity in Digital Spaces.” *The New Work of Composing.* Ed. Debra Journet, Cheryl E. Ball, and Ryan Trauman. Logan, UT: Computers and Composition Digital Press and Utah State University Press, forthcoming.

Reid, Alex, Bradley Dilger, and Derek Mueller. “Scholarship, Remix, and the Database.” *Conference on College Composition and Communication.* 18 March 2010. Louisville, KY. Presentation.

Romano, Susan. “The Egalitarianism Narrative: Whose Story? Which Yardstick?” *Computers and Composition* 10 (1998): 5-28. Print.

“Search Images.” *The William Blake Archive*. Ed. Morris Eaves, Robert N. Essick, and Joseph Viscomi. Lib. of Cong., 13 Jan. 2010. Web. 27 April 2010.

Shirky, Clay. “Ontology Is Overrated: Categories, Links, and Tags.” *Clay Shirky’s Writings about the Internet: Economics and Culture, Media and Community*. 2005. Web. 8 June 2010.

“Step 3: Describe Your Story.” *Digital Archive of Literacy Narratives.* The Ohio State University, N.d. Web. 27 June 2011.

Tenopir, Carol, and Donald W. King. “Electronic Journals and Changes in Scholarly Article Seeking and Reading Patterns” *D-Lib* (Nov./Dec. 2008): n. pag. Web. 1 Dec. 2008.

Toffler, Alvin. *Powershift: Knowledge, Wealth, and Violence at the Edge of the 21st Century*. New York: Bantam Books, 1991. Print.

Wells, Susan. “Claiming the Archive for Rhetoric and Composition.” *Rhetoric and Composition as Intellectual Work*. Ed. Gary A. Olson. Carbondale, IL: Southern Illinois UP, 2002. 55-64. Print.

Wikipedia. Wikimedia Foundation, N.d. Web. 14 June 2010.

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Response, Relationship, and Revision: Learning to Teach Writing in Asynchronous Contexts

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Abstract

Graduate students entering teacher preparation programs in English each bring with them an initial understanding of how writing is taught, understandings that frequently mirror the instruction these students received in their own education. Often, these beliefs about writing instruction focus on writing as production, rather than as a recursive process. In this article the authors describe the study of an Online Writing Partnership and examine participants' developing abilities in the teaching of writing as they work with high-school students in writing and revision. Study participants noted a significant sense of separation or disconnect from their high-school partners when communicating exclusively through asynchronous means such as email. This lack of social presence was subsequently blamed for a breakdown in relationships between mentor pairs, and confusion over the role of the study participants in the partnership overall. Findings indicate that in spite of these frustrations, online mentoring opportunities such as the one detailed in this study can provide future teachers with opportunities to reflect on the work necessary to establish effective relationships for writing instruction, and to reexamine the teaching of writing as a recursive process that benefits from dialogic response between teacher and student.

Keywords: online partnership, composition, revision, mentoring, teacher education

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> Thank you for helping me out with these papers. i took your comments on the second paper a little harsh haha...but at least in my position you might want to consider sugar coating them a little hehe. sorry if this sounds mean i just figured youd want some feedback for teaching. good luck
>
> -email from Ana-Lucia, high-school student responding to feedback from partner, future teacher Kate (all names are pseudonyms)

The "Sugar Coating Incident"

Kate, a graduate student with a BA degree in English in the fall semester of a one-year English teacher preparation, masters program, was a participant in our study on the use of asynchronous communication technologies (primarily email) to help future teachers learn to teach writing. While initially excited about the opportunity to work with a developing writer, Kate later expressed great discomfort with the lack of immediate responses to comments she made to the drafts of writing by her high-school partner, Ana-Lucia, for the purpose of revision. Ana-Lucia sent drafts to Kate via email over the course of ten weeks (two major writing assignments, narrative and expository; three drafts of each), and, often several days later, Kate returned her feedback on the writing electronically, using Microsoft Word's comment card feature. Throughout the partnership, Kate had felt increasingly frustrated in her relationship with Ana-Lucia. In Kate's view, the "sugar coating" suggestion from Ana-Lucia was the final blow that came not only from the challenge of developing an effective mentoring relationship, but emerged also, in her view, from the technological aspects that prevented an adequate relationship from forming in the first place.

Kate's primary concern, even before the "sugar-coating incident," was that the Online Writing Partnership did not allow her to communicate with her high school partner in ways she felt would be most effective. Email stripped Kate of non-verbal elements of communication, especially her admitted fondness for hand gestures and facial expressions.

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But moreover, email was asynchronous, a quality that meant there was no opportunity for immediate feedback on either end of the partnership. This method of mentoring, for Kate, broke the flow of communication between partners. Indeed, Kate felt that this interruption degraded the quality of relationship that could have developed, and as a result she approached her partner's writing with a self-reported detached, dispassionate manner. In turn, Ana-Lucia often did not make the changes to her writing that Kate had suggested, and both partners felt frustrated with their working relationship. That traditional classroom writing instruction is also asynchronous in the sense that students often don't receive a teacher's feedback on a paper for a week or more, if ever, did not affect Kate's view. And although online chat rooms and bulletin boards were available for other kinds of interactions, Kate and her partner did not choose to use these communication technologies, instead relying entirely on email for their exchanges.

After the partnership had ended, Kate reflected on her frustration with technology, and while she did not absolve it from culpability, her reflection raised awareness of her own proclivities toward relationships with people even outside of the classroom:

> It made me aware of the way I am, as in someone who's responding in a way, in a teacher/student relationship … like I treat my friends, with people, and they're like, "You're really harsh, you're being really mean to me." And I'm like, "Well, you're my friend, and you can deal with it." It shouldn't be the way I function just naturally without really thinking about it, or [I should] think about it some.

Kate realized she had a tendency to disregard her friends' feelings at times when she interacted with them and recognized that this "harshness" in her communication style also

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flavored her attempts at establishing rapport with her high-school partner. Under "normal" circumstances to account for this harshness and compensate for it, Kate relied on lively hand motions, reassuring facial expressions, modulating voice tones, and other "nurturing" tendencies she felt she possessed but that were unavailable to her in a text-only environment.

This article focuses on the challenges faced by future English teachers in learning to teach writing, drawing on a larger study of the Online Writing Partnership (Nail, 2008). Often, the study participants reported a significant level of discomfort with the asynchronous qualities inherent in email communication, and through these discomforts came opportunities for professional reflection (Nail & Townsend, 2009). We focus here on the experiences of a selected group of participants who used asynchronous communication technologies such as email to help high school students improve their writing. These technologies facilitated the inclusion of field experiences during initial coursework in theory and methods, and the experiences working with developing writers revealed the future English teachers' already held beliefs about writing and writing instruction.

The Larger Study

This article draws on a larger study that focused on five graduate students who volunteered to participate and were enrolled in a masters-level course on teaching language and composition (Nail, 2008). The majority of the study participants were preparing to become English teachers (Kate, Libby, Claire, and Nikki); however, one of the study's participants, Juliet, was enrolled in another program, and was already teaching pre-kindergarten students full-time. As one of the assignments in this course, the graduate students were paired with a high-school student who was "dual enrolled" on the campus of a local community college for the purpose of mentoring the high-school student in her/his

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writing. The Online Writing Partnership was an assignment in the language and composition class, but the vast majority of the work of the partnership took place outside of the physical classroom and was constructed to use email, chat rooms, and online bulletin boards. The partnership lasted for approximately ten weeks.

We collected data for this study by conducting a series of interviews with each of the five participants over a seven-month period (including an assessment of post-course impact), collecting artifacts, and conducting one-time interviews with the high-school partners. We conducted four semiformal, taped interviews with each graduate student participant, and numerous informal, non-recorded interviews. We collected reflective writing by the participants, high-school student papers with embedded feedback (accomplished using the "comment" function of Microsoft Word), and email correspondence between the participants and their partners.

The directions of the partnership assignment clearly indicated that the purpose of the graduate partner was to take a mentoring role with the high school student, helping the student make her or his writing better by revising it through multiple drafts (usually three); the purpose was not to serve as proofreader. However, as the study progressed, it became clear that the stated purpose conflicted with the graduate students' beliefs about the role of the teacher in writing instruction. In examining the data, we were especially curious to see 1) what types of responses the future teachers gave, 2) how much collective emphasis they gave to the various types of responses, 3) how the actual responses compared to the ways the graduate students characterized their responses, and 4) what these characterizations revealed concerning their beliefs about the roles of teacher and students in writing instruction.

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To examine the types of comments given by the participants in response to their high-school partners' writing, we collected the various drafts of papers exchanged by the participant pairs and analyzed the comments left marginally using the "comment card" function of Microsoft Word. We did not attempt to assess the responsiveness of the high school partners to those comments, nor did we attend to the quality of their writing, issues outside the purview of the study. The patterns that emerged from the array of comments given by our five participants formed seven categories that reflected our understanding of the future teachers' intended focus: Grammar, Mechanics, Development, Questions, Structure, Praise, Criticism. (For a summary of the types of responses along with brief descriptions of each, see Table 1 below.)

Table 1. Categories of response type with descriptions.

Response Type	Type Description
Grammar	Any response that points out an error in grammar conventions, such as errors in subject/verb agreement, plural endings, or verb tenses.
Mechanics	Any response that points out an error in written conventions, such as misplaced or absent punctuation and spelling.
Development	Any response designed to elicit more information from the writer. These were generally also questions, although not exclusively.
Questions	Any response that was phrased as a question and the answer to which was not already known to the mentor.
Structure	Any response relating to an issue of writing convention and specifying clarity, such as sentence or paragraph structure and organization.
Praise	Any response whose main purpose is to praise and/or encourage the writer, or otherwise express pleasure.
Criticism	Any response the purpose of which is to point out an error that does not otherwise fit into either grammar or mechanics. Often responses in criticism were about style and preference.

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We identified categories of teacher response based on the apparent intention of the comment. For example, when an interrogative form was used, we decided if its purpose was true inquiry, that is, was it designed to elicit a response that would assist the mentor in moving beyond her present understanding of the writer's purpose, plan, or ideas. If so, we placed the comment in the Questions category. Some examples include: "Why is this important to [your subject]?" "How does it fit into the philosophy?" "How could you describe this activity?" "What did you feel as you had this realization?" and "Do you think there is a difference in the way we talk and write?" The Questions category required some caution, however, as there were some instances where responses were written as interrogatives, but indicated an error needing correction, a pretender inquiry (Lindfors, 1999). For example, Kate asked in Ana-Lucia's second paper, "Do you mean 'is'?" in response to what was clearly a typographical error. Instead, we put these "questions" in the Mechanics category, which included such typographical errors, errors of punctuation, and others. Many of the responses fit into multiple categories. For example, the graduate students sometimes asked questions to provoke the high school students to elaborate in a way that would help with the development of their paper. Hence, we identified this type of response as both an instance in the Questions and Development categories.

Teachers' Responses to Students' Writing

Often, the theory of response to writing is different than the practice of response (Anson, 1989; Dyson & Freedman, 2003; Freedman, et al., 1987; Onore, 1989; Warnock, 1989). While the concept of process-based writing instruction has over the past quarter century established itself as an underlying principle in American schools, teachers do not necessarily enact approaches that are in concert with this view of writing instruction

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(Whitney et al., 2008). Teachers frequently view responding to writing and editing student papers as the same thing; for that matter, so do students, if only because that is what they are used to. One study of writing teachers' practices (Langer & Applebee, 1987) looked at the frequency of "editing" comments (comments that sought to correct some "rule" of writing) versus the frequency of "praise" comments, where the comments were intended to encourage what was seen as "good" writing. Of the thousands of comments given during that study, ninety-seven percent were "editing" comments. In our study, nearly two thirds of our five participants' comments also focused on some kind of correction. Indeed, Kate's predominant use of this type of comment, while congruent with the response patterns of her classmates, may well have played a role in provoking the dissent between her and Ana-Lucia, who interpreted the comments as "harsh."

Correcting errors can be part of response to be sure, but it is not necessarily the kind of response most helpful to student writers. Providing effective response to student writing is a difficult practice for many teachers because it requires the teacher to wear two "hats" simultaneously: that of the helpful guide and that also of the authoritative representative of the field of "proper" writing. Students likewise find response to writing difficult to grapple with; many students perceive response to a final draft as more valuable than response during the process of writing itself (Daiker, 1989). As a result, common practice often has the effect of removing what could be the real benefits of response: joint discovery, problem solving, and revision (Freedman et al., 1987).

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Similarly, the way English teachers are taught, not only in methods courses, but also in college literature and composition courses, influences greatly the way they approach student writing (Anson, 1989; Emig, 1994; Phelps, 1989; Reither, 1994; Smagorinsky & Whiting, 1995). Murray (1989), drawing on Rosenblatt's (1978) reader response theory, states that much of what teachers expect from a text reflects "not only their mental and physical characteristics, but their culture, their experiences with the world, and their experiences with the world of texts as well" (p. 73). These expectations result in teachers reading students' texts "from the perspective of their own academic training and experiences with writing papers" (p. 77), experiences that typically are one-shot critical essays, graded and evaluated when they are turned in and rarely revisited with the aim of improving the writing. In contrast, in Ana-Lucia's English class, taught by a graduate of the teacher preparation program that forms the context for the partnership discussed here, students were required to complete multiple drafts of their writing before turning in a paper for a grade. Ana-Lucia's attitudes toward what she viewed as Kate's "harsh" comments may have originated in the very different experiences each had in high school English. In any case, Ana-Lucia's current teacher had been enacting a very different approach to responding to students' papers, an approach that focused on revision.

True revision (not editing) involves "a sequence of changes in a composition—changes that are initiated by cues and occur continually throughout the writing of a work" (Sommers, 1980). It often requires an open mind and a new view—a re-seeing and possibly re-conceptualizing of initial and developing ideas and organization. Revision is inextricably linked to effective writing because it is part of the interaction between writer and text as s/he moves recursively through the writing process; however, like response, revision in classroom

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practice is often different from revision as practiced by experienced writers. Also like response, revision is shaped not only by past experiences with writing, but also by the writer's conception of revision itself (Beach, 1976). Sommers (1980) and Fitzgerald (1987) show in their research that student writers often look at their revising efforts as attending to matters of form. Typically, student writers approach revision of writing as if the core meaning is already present, and it is simply a matter of "moving words around" for the sake of clarity of meaning and/or the polishing of writing style. Experienced writers, on the other hand, view revision much as Perl (1994) envisions the recursive nature of writing itself, as a process that is ongoing from the moment writing begins. They view the revision process as the creation of meaning rather than the clarification of that meaning (Beach, 1976; Sommers, 1980).

Teachers, if they are to model the approach to writing found in experienced, successful writers, must shape their responses to students' writing in ways designed to engage students in the process of attending to and reflecting on the content and style of their own writing. The goal of writing instruction, competency in writing for multiple purposes and audiences, requires students to view revision not as a final step before assessment and grading, but as a recursive part of the writing itself. Within the classroom, this orientation can be especially difficult to achieve, as the nature of schooling is regimented and divided, and many (if not most) tasks are viewed in light of the end product. Revision becomes mere proofreading, both in the student's eyes and in the eyes of the teacher. Perhaps one explanation for the tension between Ana-Lucia and Kate was the difference in the expectations each held. Ana-Lucia's previous experiences with her classroom teacher's content-based, attentive-reader comments on her writing probably inclined her to expect something similar from her graduate

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student partner. Kate, on the other hand, expected on a fairly deep level that her job was to direct Ana-Lucia to correct her assorted errors of form.

Future Teachers' Beliefs about Writing and Writing Instruction

The way the future teachers interpreted their task in the partnership revealed much about their beliefs not only about the role of the teacher in writing instruction, but also about the role of the student. The descriptions of their experiences in the partnership reflected a strong belief that the role of the writing instructor was to identify errors and suggest changes for students to make to their writing. Not only was their role (as they defined it) to suggest changes, it was also in their view the role of the high-school student to incorporate those changes into their writing.

The graduate students' self-defined roles stemmed from the participants' belief that they had "figured out" what writing was, and this understanding of the nature of writing was the basis for their approach to the teaching of writing. Kate, for example, believed that her "duty" to her students was to show them how writing could do for them what it had done for her. Kate talked early in the interview process about unlocking the power of writing in her own life:

> When I say something then it makes sense to me and so writing it helps me to make sense of my reality and so, I majored in it and I found, well, this goes even further: you can study culture, and people's output is a way of, it's a microcosm of understanding what's going on in the world …

In a later interview, she expressed how this early realization concerning her own writing influenced her beliefs about teaching others:

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> So I hope that by introducing the idea of like, themselves, in their writing, they're going to do a lot of writing about themselves, who they are and, a bunch of … all the poetry we're going to do at the beginning, it's just poetry about yourself. So that you can, plug your feelings and your thoughts and your actual ideas into … and the writing becomes a natural outgrowth of it. And it's not … It's the bridge.

Perhaps if Kate had been responding to poetry writing by Ana-Lucia, she would have responded more in a "bridge" building way. As it was, her reading of Ana-Lucia's narrative and expository papers focused mostly on correction and not on developing the student's "feelings," "thoughts," or "ideas."

Like Kate, all five participants held conceptions about the nature of writing in their own life, and those beliefs influenced in some way each of their approaches to teaching writing, even if their intentions did not always match their actions. Juliet considered herself a storyteller, and her pre-kindergarten students assumed the same role (in part because they were learning to write for the first time). Claire, while dealing with internal struggles over her right to tell others "what to do" in general, believed that her experiences working for a newspaper and her degree in publishing made her competent to instruct others in their writing. Libby's negative experiences as a writer in high school instilled in her the belief that she needed to countermand those negative influences for her own students. Nikki, confident beyond all the others in her writing abilities, believed her position of self-perceived authority would inspire others to write, and they would then emulate her as a writer, developing their abilities almost magically.

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Often the transcripts of their recollections of responding to the students' writing read very differently from what we found in the comments inserted into the high school students' papers, demonstrating that what teachers think they are doing is not necessarily what they are doing (Susskind, 1979). For example, Juliet stated in her interviews that she worked very hard at phrasing all of her responses as questions, in order to appear "less dogmatic" to her partner. Upon review of her partner's papers, however, the percentage of Juliet's responses phrased as questions was only slightly higher than the eighteen percent that represented the amount of questions among the collective responses given. (For more details of the relative emphasis on types of response among all participants, see Figure 1 below.)

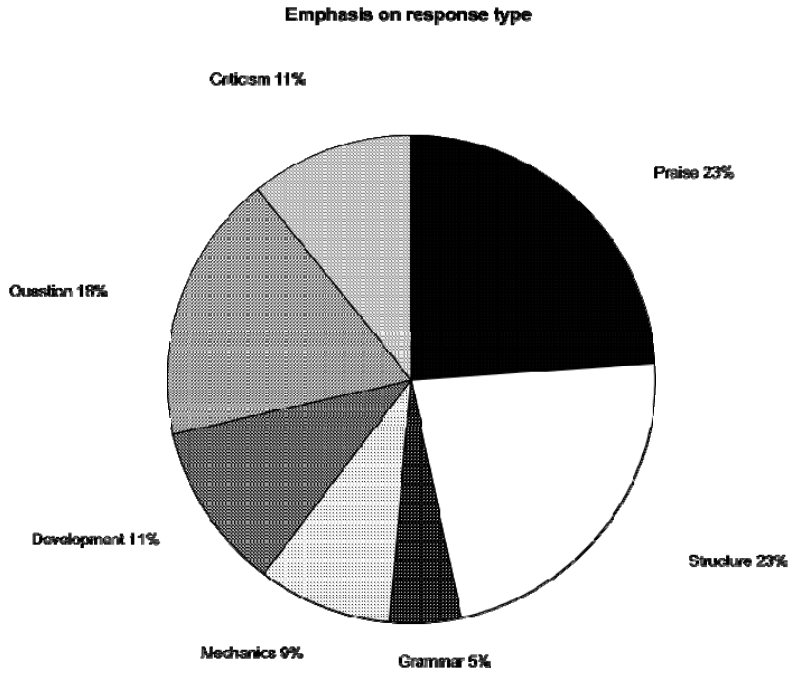

Figure 1. Percentage of emphasis on response type

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We classified the majority of the responses to student writing, despite the graduate students' claims to the contrary, as editing suggestions focused mostly on surface features. The methods professor had recommended three general types of response as being most effective in prompting writers to revise: honest questions and praise, and tentatively worded suggestions. Praise accounted for nearly a quarter of all responses, and questions for just slightly less; however, five of the seven categories identified through our analysis of participants' response types dealt with aspects of correction: Grammar, Mechanics, Development, Structure, Criticism. Indeed, nearly two-thirds of all given responses attended to what the graduate partners viewed as "mistakes" in their high-school partners' writing. This proportion confirmed, along with the graduate students' repeated expressions of frustration with the "raw" form of their partners' papers, the belief that the primary role of the teacher is to identify errors in student writing and/or suggest changes, and the role of the student is to make those changes. Sadly, these findings reflect deeply persistent views on the role of teachers' responses to students' writing (Anson, 1989; Dyson & Freedman, 2003; Freedman, et al., 1987; Onore, 1989; Warnock, 1989).

Revision as a Significant Part of Writing Instruction

Perhaps the most notable aspect of this study, as it pertained to teaching writing, was the participants' understanding of "revision." Participants reported little if any experience with revision in their own writing. For them, revision was synonymous with "proofreading" and "editing," and these alternate terms were as likely as not to be used when referring to the work the graduate students were doing for their partners. In practice, however, revision is crucially important for developing writers; it illustrates that writing is a process one actively engages in (Emig, 1994; Ivani, 2004) and provides a useful opportunity (sometimes the only

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opportunity) for teaching intervention. During one of her interviews, Claire described writing as "transcribing [one's] thoughts," but good writing requires development of thought (Emig, 1977). Still, the study participants viewed grammar as the primary concern teachers would have with student writing and the area of their partner's writing in which they could be of most use.

Vygotsky (1978) described his famous theory of learning as a zone bordered by two levels of development. One level represented that which a student could accomplish on her/his own (actual development level); the other represented what the student was capable of achieving with the help of a knowledgeable other (potential development level). The participants in this study understood the concept of Vygotsky's Zone of Proximal Development (ZPD), and in fact would refer to it by name occasionally during their interviews. There was a general understanding that their future responsibilities as teachers of writing (the knowledgeable other) would be to help students move across the zone separating actual writing ability from potential writing development. Yet one persistent anxiety for participants in this study was exactly how to accomplish this move from actual to potential with their high-school partner. Bruner and others (Bruner, 1985, 1986; Samaras & Gismondi, 1998) have advocated scaffolding as a bridge between Vygotsky's levels of development, an approach in which teachers/tutors assist students' learning by first determining what a student knows, and building gradually from there. This idea of scaffolding, too, was a concept the study participants were familiar with and referred to frequently. What was missing from their discussions of student learning, however, was the ability to see these theories in light of actual practice. Instead, the study participants undertook their work with student writing in

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reverse, approaching the partnership from the perspective of what their high-school partners could not do.

Kate was the most vociferous in her frustration over the level of grammar mistakes evident in her partner's writing. In her reflection paper, she wrote of her first experience with Ana-Lucia's writing: "I found myself at a loss and unable to provide constructive feedback because the errors that filled her paper required a back-to-the-basics approach to writing." Confronted by so many corrections, it's no wonder that Ana-Lucia would desire a little "sugar coating." While they were not prohibited from addressing grammatical concerns in their partners' writing, we did ask that they not correct errors for their high school partners. In response, they complained early and often about the propensity for error in the drafts they were receiving. Kate acknowledged in her interviews that students needed to hear about more than just mistakes in writing, yet followed this admission by questioning how she could respond at all when poor grammar prevented the meaning from being communicated. However, when we looked at Kate's feedback on the first paper she received from Ana-Lucia, there were many examples where Kate had responded to the content of the writing and not solely to the grammatical and mechanical errors. In fact, the grammar had not got in the way of content after all.

Claire too described her "main revision suggestions" to her partner as primarily warning against run-on sentences, and how her partner Charlie might break up long sentences into smaller sentences. Yet in spite of such clear concern about the grammatical and mechanical insufficiencies in their partners' writing, and the certainty that these should be addressed first, participants reported uncertainty about what else to do. In one telling comment, Nikki stated at the end of her interviews that even after a semester of instruction:

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> … nobody's ever said, oh, this is what you look for when you grade a paper. So that kinda scares me...when I go into a classroom, because I don't know exactly how to grade a paper just yet, and here I am going to have to assign them and I don't know what to look for.

That Nikki felt grading was a process of "looking for" things (errors) suggests what could be an underlying sense of need shared by many future teachers despite many discussions about assessment and practice grading exercises in the writing methods course. Here was yet another discomfort associated with student writing, this time radiating from the feeling that there was something more to teaching writing than identifying what their partner was unable to do.

Korthagen and Kessels (1999) write that for teachers to be able to transfer knowledge of theory to practice, there must first exist a felt sense of need for that particular knowledge in a particular context. The discomfort the participants felt responding to student writing came not from the technological aspect of the Online Writing Partnership, nor even from the instructions to look beyond correcting errors in their student's drafts though both these aspects were often frustrating. The central discomfort these future teachers reported arose from feeling that there was something more to writing instruction, and they were not sure what it was. And indeed that something "more" is quite challenging. An effective teacher of writing must help students notice the difficulties they are having in writing so that they themselves can make the changes that will lead to substantive content and style related improvement. At the same time, an effective teacher must help students maintain a sense of agency and motivation so that they will internalize the guidance they are given. This kind of

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instructional guidance is a delicate dance between convincing authority and respect for fledgling efforts, and it remains a challenge for experienced teachers.

In his study of teachers' own educational experiences, Anson (1989) noted that the way in which teachers were taught to view texts often reflected the way they viewed their own students' papers. Attitudes toward writing clearly shape teachers' approaches to writing instruction (Stockinger, 2007). From their statements about writing and specifically about writing assigned as part of their undergraduate coursework, "writing" for the future teachers in this study was a product intended to show what students had learned, not a learning process in itself. If, as Claire stated explicitly, the participants viewed writing as merely a transcript of one's thoughts, to comment on the thoughts of another might have seemed like a presumption these future teachers were unwilling to make. In any case, that revision offered them an opportunity to help their partners deepen their thinking and stretch their sense of purpose and audience did not much attract their attention.

One exception was Libby, and for her, the most significant development in her beliefs about teaching was the "discovery" of revision during the methods class. Revision as a concept was new to Libby, and its introduction late in her academic career sparked a revolution in her view of teaching. For Libby, revision came to be more than just a part of the writing process. Instead, she saw this facet of composition as critical to the teacher/student relationship as well as integral to what she viewed as the primary duty of English teachers, the "responsibility to promote critical and independent thinking." To Libby, revision gave students the opportunity and freedom necessary to view learning as a gradual process, and most important was the idea of providing feedback *in process* on whatever tasks students were undertaking. Libby was the only participant in our study open

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to the idea that writing was recursive and not a prescribed series of steps. Yet, from her remarks about how profoundly the "new" notion of revision presented in her methods class affected her outlook on nearly every aspect of teaching, we concluded that Libby did not view revision as a usual step in her writing process. Moreover, she stated in her interviews and in her reflective writing that academic writing elicited bad memories because of what she called the "one and you're done" approach to writing assignments. This experience with academic writing is not uncommon among college undergraduates (Thompson, 1994).

Claire was the most experienced of the five participants as a writer, having worked as a professional journalist. Yet she described her approach to writing primarily as sitting down at a computer or typewriter and composing in a single sitting. Claire acknowledged that some people might benefit from the ability to "play around" with their writing, but she was also convinced that the writing most writers connected with "just came out." Indeed, most of the participants (Juliet was the exception) to some degree believed their own writing did not require revision. Nikki explained her view of revision as something "like an actress watching her own movies, or a chef eating their food. I don't think it happens very often." In her reflection paper Nikki even called the revision process "retyping."

Their antipathy toward revision reflected deeply held beliefs that revision was not something that skilled writers did. Instead revision was a classroom activity, a step in the writing procedure, especially for those (such as high-school students) still developing their writing abilities. The pervasive belief was that the teacher was there to illuminate errors in a student's writing, and through revision (aka editing) the student would correct those errors. For the graduate students, revision did not resemble the recursive process described by research on the process of writing (Emig, 1977; Perl, 1994). Rather, revision was teacher-

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assisted proofreading followed by re-writing. Judging from the results of this study, that belief appears to be substantially resistant to change.

Online Relationships with Students

Although they did not have the specific jargon, "social presence" during the Online Writing Partnership was the most pressing issue of the entire experience for the study participants. Defined as one's awareness of another in a mediated environment and the quality of relationship that manifests as a result of that awareness (Delfino & Manca, 2006; Leh, 2001; Richardson & Swan, 2003; Tu, 2000), social presence was a factor for the study participants even before they began exchanging emails with their high-school partners. At our orientation sessions for the Online Writing Partnership, many of the graduate students in the course expressed concerns about the quality of assistance they could provide absent actual, spatial presence. Communication with their partners was asynchronous, not immediate, and the technology they were to use was often the only thing the graduate students saw. As a result each study participant reported a sense of separation or disconnection from her high-school partner.

Without a sense of social presence congruent with the beliefs each participant held about student/teacher interactions, they worried that connections with students would either be impossible to create or unsuitable to the objectives of writing instruction. Likewise, the graduate students' beliefs about teaching writing reflected what they saw as the very nature of teaching: using their personal influence/authority to present information to students clearly and effectively. They simply did not believe the level of social presence in the Online Writing Partnership allowed them to do so.

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Kate most adamantly expressed belief in the importance of social presence to writing instruction. Here she explains this belief, shared by the others, of how physical proximity allowed a teacher to go beyond the "mechanical" skill of writing instruction:

> … In terms of writing apart from mechanics, just writing for audience and all these other aspects that kind of go beyond, you know, mechanics, it's, it's lacking … even the spatial element ... just ... knowing what each other looks like … I rely a lot on speech, and combining rhetoric … I think you can read a speech or you can hear a speech and they have totally different effects just because the words on the page don't always do what um, when you hear what the speech actually does.

Situations that lacked close, physical proximity only made teaching more difficult in the minds of the study participants. While Libby expressed a belief that "talking about writing using writing" seemed like it would benefit writing instruction, all five participants expressed frustration with being limited to text-only, asynchronous communication when trying to mentor secondary students in writing. (Interestingly, they apparently felt no such constraint in their self-reported, regular interactions with friends via online social networking sites such as Facebook.)

Even so, each graduate student stated that she had seen evidence of changes made in her high-school partners' writing; indeed, each believed that these changes indicated the existence of some type of bond between the two. Claire stated plainly that "there had to have been some relationship between us or he would not have … I wouldn't have seen any of the suggestions I made in the final draft." Juliet acknowledged that she "didn't know who [her partner] was as a writer," yet wrote in her reflective paper "it was rewarding to see my

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questions answered in her revisions." Libby likewise felt that because her situation with her high-school student lacked a "personal aspect," it therefore was "more teacher/student … than mentorish."

In the imaginations of the study participants, student/teacher relationships developed naturally and as a matter of course, especially when uninhibited by the limitations of text-only communication technologies. From observations that sarcasm did not translate well in email, to frustrations resulting from a lack of "emotional feelings" toward the high-school partners, the study participants' comments revealed several beliefs about student/teacher interaction in writing instruction. One was that using online communication technologies during the partnership made the graduate participants more conscious of the complexities of communication, and especially of communicating to connect in a personal way with others. Another, somewhat paradoxical belief was that being conscious of and attending to the various complexities of communication only made the process of establishing bonds more difficult. In the case of teaching writing, our participants believed that left to their own devices in a physical classroom, effective working relationships would "just happen." Technology became the focus for their frustration, and Nikki captured the general sense, saying that, "if I had the opportunity to see [my partner], something would definitely develop."

The frustrations that arose from the asynchronous communication technologies provided by the Online Writing Partnership evoked a general belief among study participants that social presence, a sense of emotional connection and a feeling that the people in communicative situations are real (Richardson & Swan, 2003), was lacking in the online environments in which they were participating. As a result, the assumption by the study

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participants was that effective relationships were unachievable to the degree necessary for effective writing instruction to occur. Yet, merely "being there" is no guarantee that social presence will be established, or that relationships will develop. While distance between partners, both actual and emotional, was most palpable to the participants of this study because of the text-only communication between partners, that same sense of distance can also affect people in face-to-face educational settings. When talking about their own experiences with writing papers for college classes, the study participants recalled that they would turn in one draft, receive little or no feedback from their professor, and be given only a grade in response. Indeed, there was arguably less social presence in their college classrooms than in the Online Writing Partnership, especially for students in large classes with a professor whose primary mode of instruction was lecture (Thompson, 1994). Indeed, in many of their memories of undergraduate composition instruction, our participants made little mention of rapport between student and professor.

Learning to Teach Writing: Implications for Practice

One major benefit that online mentoring experiences offers is an opportunity for future teachers to remember and reflect on their own experiences as students. From their high school memories, our participants could recall favorite teachers, but they also remembered getting little substantive response to their writing, no opportunities for revision using a teacher's feedback, and usually only a final grade in evaluation. Yet, each study participant was readily able to call forth examples of positive experiences with teachers, teachers who not only instructed them but inspired them to pursue teaching themselves. (The exception was Claire, who had difficulty even remembering the names of former teachers, and by her own admission found herself preparing to teach "by accident.") By participating in the Online

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Writing Partnership, and especially by participating in the study of that experience, these future teachers had a chance to discuss what they felt was missing for developing effective mentoring relationships, and in turn to explore what was required for this development to take place. Helping future teachers consider the nuances involved in the way words are used, their tone, and their choice as well as an array of other factors that influence the relationships between teachers and students (e.g., students' and teachers' sense of purpose in the tasks assigned, students' experiences with teachers' evaluations of their work) may be one of the most pressing challenges in preparing people for effective teaching in any subject and in any context.

The desire for a closer relationship with their partners was genuine on the part of our study participants; however, it also served as an excuse for why each felt frustrated by the experience, and perhaps for Kate, was an excuse for why she did not feel obligated to participate fully. In any case, Kate was particularly adamant about the need for a more personal relationship in which she understood her partner beyond what her partner could reveal in writing. Certainly, Kate was correct about the importance of developing an effective working relationship. Trustworthy relationships are important supports to writing instruction because while the mechanisms of writing are social (Emig, 1977; Zenkov & Harmon, 2009; Ong, 1982; Reither, 1994), there can be a large degree of personal revelation in writing (Dyson & Freedman, 2003; D. Murray, 1994; P. Y. Murray, 1989). The trust established through a nurtured relationship can help a student be more receptive to what otherwise might be considered "criticisms" of intimate thought. Likewise, for a teacher to understand who a student is as a unique individual can be invaluable for understanding what will help that student to develop his/her thinking and writing. Providing future teachers with

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opportunities such as online mentoring of developing writers, perhaps even because of the discomfort initially felt as a result of teaching in unfamiliar ways, may help pre-service teachers to develop communicative competencies that avoid assumptions of mysterious, spontaneously generated social presence, regardless of context.

Future teachers can gain from a certain level of discomfort in preparing to be teachers (Nail & Townsend, 2009). Discomfort can prompt us to seek the source of that feeling, and to explore ways of lessening it; however, merely feeling discomfort is not enough. What the Online Writing Partnership provided the future teachers in this particular case was an opportunity to feel uncomfortable with their approach to student writing during a period when they were not responsible for grading it, before their internships, and in contexts that were supportive of approaching writing as a recursive, individual process. In online experiences such as the one at the center of this study, prospective teachers' views of writing can be challenged, and possibly modified, so that writing can be approached as a process of learning for themselves and their students, rather than a march to discover a presumed, predetermined "product," as is often the case among teachers of writing (Flower & Hayes, 1994). Under the watchful eye of the university or college professor, pre-service teachers can gradually become more comfortable approaching writing instruction as an opportunity to assist students in exploring and developing their thinking, rather than being, in Juliet's words, "consumed with what's wrong with [students'] writing."

Even so, as much as they felt the need to argue otherwise, the participants in the Online Writing Partnership did not fail at their task of mentoring student writers. Claire, for example, shook her head when considering where her partner stood at the end of the partnership in relation to where he was in the beginning, suggesting that she was unsure how

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much progress Charlie had made; however, in her reflection paper she acknowledged that she had seen improvement in his writing, and not just in the fewer number of errors she noted in Charlie's final draft. The high-school students themselves reported universally that they believed their writing had benefited from the work they did with the graduate students, even Ana-Lucia. While it took time for the study participants to recognize it, the Online Writing Partnership provided an opportunity to respond to student writing while attending to the developmental process of that writing, an approach that was markedly different than the assumptions in the minds of the participants at the beginning of the semester. What the Online Writing Partnership provided for these future teachers was an extended experience working with individual students, an experience that focused these pre-service teachers' attentions on the student as an individual writer, with a distinct writing process and distinct needs for her or his writing development. Unfortunately, many future teachers do not get these opportunities even in their internship experience (Burant & Kirby, 2002; Darling-Hammond et al., 2002). Once they have begun full-time teaching, the chances of applying the theory learned in methods courses are significantly lower (Boreen & Niday, 2000; Bransford et al., 1999; Graham & Thornley, 2000).

The goal of teacher education should not be to agitate future teachers intentionally with the hopes of prompting a reassessment of the preconceived ideas many of them bring to the profession; however, research has suggested that the best field experiences for future teachers are those with a level of uncertainty that encourages reflective thinking (Kaplan et al, 2007). In much the same way that revision requires a new view, a re-seeing, the ability to help others learn to write better may depend in large part on an ability to reflect anew on one's ideas about writing and teaching. Nikki described the Online Writing Partnership as "a nice

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contrast," and perhaps the greatest value of the partnership was this contrast between the future teachers' expectations of working with imagined student writers and the reality of working with specific high-school students in an online context. But simply agitating pre-service teachers is unlikely to provide the necessary experiences that facilitate the application of theory learned in teacher education programs to the practice of their eventual daily teaching. In her final interview, Kate reported that what made the partnership worthwhile to her was the process of interviewing itself, that while her frustration level was high, talking about her frustrations not only alleviated these feelings but helped her to acknowledge her own beliefs related to the teaching of writing. Most obvious to Kate was her experience in the "sugar-coating" incident, where her partner "took [her] to task" about Kate's caustic comments. This response led Kate to genuine insight regarding the way she related to others, and while she was far from convinced that online mentoring was the way to go, she saw value in it as a chance for critical reflection.

Preparing teachers of writing to enter the classroom and help their students improve their writing presents one of the toughest challenges to teacher educators. Because writing does not progress in the same way for any two writers, effective instruction must take heed of the differences inherent in individual processes. Carefully crafted responses from teachers, the kind of responses that are perhaps the biggest intellectual challenge in teaching writing, support the unique nature of each student's writing development. In this study, in taking a looking-for-errors view of writing instruction, our participants showed they had very definite ideas about teaching writing. Their surety was undermined, however, by their propensity to become frustrated by the difficulties they faced in online mentoring and often to lay the blame for these frustrations at the feet of the technology that surely contributed to, but was

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not the locus of their discomfort. Perhaps one of the primary benefits of learning to teach writing partially in online spaces is the opportunity for this discomfort to arise and to provide the sense of need Korthagen and Kessels (1999) notes is often required for future teachers to transfer the theory we give them in teacher preparation courses to the practice they implement in their own classrooms. Online or not, early field experiences helping individual students develop their writing abilities do offer future teachers the chance to reassess their preconceived ideas about teaching and writing and gain new insight.

Changes to the Partnership and Future Research

In reflecting on the findings from our study, we have made a number of changes to the Online Writing Partnership, and we continue to collect and analyze data from participants' work there as well as to survey participants' perspectives on the process. Noting especially the need for an increased sense of social presence in the online mentoring relationships, we have most recently made opportunities for the graduate students to meet their high-school student partners in person at the beginning of the semester and to work with them face-to-face in classroom writing workshops during the semester. We have increased the opportunities for collaborative interactions by using an online course management system (Moodle) that includes forums and wikis as well as by instituting "feedback quizzes" that allow the high school students to make comments about the usefulness of the future teachers' responses to their drafts. We've expanded the number of partners our future teachers mentor to give them a greater sense of range in what secondary students' capacities can be in writing. We've also put more emphasis on a final synthesis of reflective thinking over the course of the partnership, requiring our future teachers to keep logs of all their interactions with their high school partners and to analyze those interactions for patterns of feedback and response.

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Research is ongoing into the nature and role of the Online Writing Partnership in developing secondary students' writing and in preparing effective teachers of writing. We are especially intrigued by the blended environment—using both face-to-face interactions and online spaces— for enhancing teaching and learning opportunities. In both contexts and in various iterations of the partnership, we continue to explore issues of relationship, response, and revision in writing instruction. What factors enhance participants' sense of relationship in the partnership? What are significant revision strategies for developing writers? What kinds of feedback are most helpful to that process? Perhaps most important, what conditions will contribute most substantially to our future teachers' understanding and practice of effective writing pedagogy and in what ways can we best help high school students make their writing better—more articulate, more persuasive, more engaging?

References

Anson, C. M. (1989). *Writing and response : Theory, practice, and research*. Urbana, Ill.: National Council of Teachers of English.

Beach, R. (1976). Self-evaluation strategies of extensive revisers and nonrevisers. *College Composition and Communication*, 27(2), 160-164.

Boreen, J., & Niday, D. (2000). Breaking through the Isolation: Mentoring beginning teachers. *Journal of Adolescent & Adult Literacy*, 44(2), 152-163.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (1999). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.

Bruner, J. (1985). Models of the learner. *Educational Researcher*, 14(6), 5-8.

Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.

Burant, T. J., & Kirby, D. (2002). Beyond classroom-based early field experiences: Understanding an "educative practicum" in an urban school and community. *Teaching and Teacher Education*, 18, 561-575.

Daiker, D. A. (1989). Learning to praise. In C. M. Anson (Ed.), *Writing and response: Theory, practice, and research* (pp. 103-113). Urbana, IL: National Council of Teachers of English.

Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education*, 53(4), 286-302.

Delfino, M., & Manca, S. (2006). The expression of social presence through the use of figurative language in a web-based learning environment. *Computers in Human Behavior*, 23, 2190-2211.

Dyson, A. H., & Freedman, S. W. (2003). Writing. In J. Flood, D. Lapp, J. R. Squire & J. M. Jensen (Eds.), *Handbook of research on teaching the English language arts* (Second ed., pp. 967-992). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Emig, J. (1977). Writing as a mode of learning. *College Composition and Communication*. 28(2), 122-128.

Emig, J. (1994). The composing process: Review of the literature. In S. Perl (Ed.), *Landmark essays on writing process* (pp. 1-22). Davis, CA: Hermagoras Press.

Fitzgerald, J. (1987). Research on revision in writing. *Review of Educational Research*, 57(4), 481-506.

Flower, L., & Hayes, J. R. (1994). The Cognition of discovery: Defining a rhetorical problem. In S. Perl (Ed.), *Landmark essays on writing process* (pp. 63-74). Davis, CA.

Freedman, S. W., Greenleaf, C., & Sperling, M. (1987). *Response to student writing*. Urbana, Ill.: National Council of Teachers of English.

Graham, S., & Thornley, C. (2000). Connecting classrooms in pre-service education: Conversations for learning. *Asia-Pacific Journal of Teacher-Education*, 28(2), 235-245.

Ivani, R. (2004). Discourses of writing and learning to write. *Language and Education*, 18(3), 220-245.

Kaplan, D. S., Rupley, W. H., Sparks, J., & Holcomb, A. (2007). Comparing traditional journal writing with journal writing shared over e-mail list serves as tools for facilitating reflective thinking: A study of preservice teachers. *Journal of Literacy Research*, 39(3), 357-387.

Zenkov, K., & Harmon, J. (2009). Picturing a writing process: Photovoice and teaching writing to urban youth. *Journal of Adolescent & Adult Literacy*, 52(7), 575-584.

Korthagen, F. A. J., & Kessels, J. P. A. M. (1999). Linking theory and practice: Changing the pedagogy of teacher education. *Educational Researcher*, 28(4), 4-17.

Langer, J. A., & Applebee, A. N. (1987). *How writing shapes thinking : A study of teaching and learning*. Urbana, Ill.: National Council of Teachers of English.

Lindfors, J.W. (1999). *Children's inquiry: Using language to make sense of the world*. New York: Teachers College Press.

Leh, A. S. C. (2001). Computer-mediated communication and social presence in a distance learning environment. *International Journal of Educational Telecommunications*, 7(2), 109.

Murray, D. (1994). All writing is autobiography. In S. Perl (Ed.), *Landmark essays on writing process* (pp. 207-216). Davis, CA: Hermagoras Press.

Murray, P. Y. (1989). Teachers as readers, readers as teachers. In B. Lawson, S. S. Ryan & W. R. Winterowd (Eds.), *Encountering student texts: Interpretive issues in reading student writing* (pp. 73-85). Urbana, IL: NCTE.

Nail, A. (2008). An exploration of preservice teachers' experiences in an online writing partnership. Unpublished Dissertation. University of Florida.

Nail, A. & Townsend, J.S. (2010). Reflection through discomfort: What resistance reveals when communication technologies mediate authentic writing mentorships. *Contemporary Issues in Technology and Teacher Education, 10*(4).

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

Onore, C. (1989). The student, the teacher, and the text: Negotiating meanings through response and revision. In C. M. Anson (Ed.), *Writing and response: Theory, practice, and research* (pp. 231-260). Urbana, IL: National Council of Teachers of English.

Perl, S. (1994). Understanding composing. In S. Perl (Ed.), *Landmark essays on writing process* (pp. 99-105). Davis, CA: Hermagoras Press.

Phelps, L.W. (1989). Images of student writing: The deep structure of teacher response. In C. M. Anson (Ed.), *Writing and response: Theory, practice, and research* (pp. 37-67). Urbana, IL: National Council of Teachers of English.

Reither, J. (1994). Writing and knowing: Toward redefining the writing process. In S. Perl (Ed.), *Landmark essays on writing process* (pp. 141-148). Davis, CA: Hermagoras Press.

Richardson, J. C., & Swan, K. (2003). Examining social presence in online courses in relation to students' perceived learning and satisfaction. *JALN*, 7(1), 21.

Rosenblatt, L. (1978). *The Reader, the text, the poem: The transactional theory of literary work*. Carbondale, IL: Southern Illinois University Press.

Samaras, A. P., & Gismondi, S. (1998). Scaffolds in the field: Vygotskian interpretation in a teacher education program. *Teaching and Teacher Education*, 14(7), 715-733.

Smagorinsky, P., & Whiting, M. E. (1995). *How English teachers get taught: Methods of teaching the methods class*. Urbana, IL: NCTE.

Sommers, N. (1980). Revision strategies of student writers and experienced adult writers. *College Composition and Communication*, 31(4), 378-388.

Susskind, E. (1979) Encouraging teachers to encourage children's curiosity: A pivotal competence. *Journal of Clinical Child Psychology*, summer. 101-106.

Stockinger, P. C. (2007). Living in, learning from, looking back, breaking through in the English language arts methods course: A case study of two preservice teachers. *English Education*, 39(3), 201-225.

Thompson, J. (1994) Pedagogy of the distressed. In D.B. Downing (Ed.), *Changing classroom practices: Resources for literary and cultural studies*. Urbana, IL: NCTE.

Tu, C.-H. (2000). On-line learning migration: From social learning theory to social presence theory in a CMC environment. *Journal of Network and Computer Applications*, 23(1), 27-37.

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Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge,MA: Harvard University Press.

Warnock, T. (1989). An analysis of response: Dream, prayer, and chart. In B. Lawson, S. S. Ryan & W. R. Winterowd (Eds.), *Encountering student texts: Interpretive issues in reading student writing* (pp. 59-72). Urbana, IL: NCTE.

Whitney, A., Blau, S., Bright, A., Cabe, R., Dewar, T., Levin, J., et al. (2008). Beyond strategies: teacher practice, writing process, and the influence of inquiry. *English Education*, 40(3), 201-230.

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Can't We All Get Along? Content, Technology and the Battle for Literacy

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Abstract

The rise of the internet and various forms of online communication has given rise to concerns about what online writing and reading might mean for the future of traditional literacy. This essay examines the concept of literacy and understanding, and the arguments and research surrounding traditional and online literacy with the goal of harmonizing the major arguments in the field. Ultimately it appears attempts to define online literacy by the habits of traditional literacy are unhelpful. Online literacy is a hybrid that combines traditional literacy with the speed and feedback of oral literacy.

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In war, it is said, the first casualty is truth. The United States—and, in fact, the world—is not quite involved in a war on literacy and understanding, though there is a battle underway. This battle is one of competing ideas and visions for the future of reading, comprehension and what passes as knowledge. The rise of digital media has resulted in an unsettled landscape that is creating uncertainty about how our literacy-based culture and its longstanding philosophical underpinnings can survive. Some believe the future may be grim (Bauerlein, 2009), others see the future as bright (Chandler-Olcott, 2009), and still others believe the future will be an admixture of traditional literacy and some new habits and modes of thought (Agger, 2010).

The history of communication transformation has often been accompanied by great hopes and equally great skepticism. One of the early mass media breakthroughs—the telegraph—promised "a revolution in moral grandeur" (Czitrom, 1982). Communication scholar Daniel Czitrom notes this same technology led some to conclude that rapidly disseminated, short messages would result in "a debauch of the intellect…this perpetual dissipation of the mind" (Czitrom, 1982, p. 19) among those who gave themselves over to the new technology. Centuries earlier, vicar and academic fellow Robert Burton looked over the cultural landscape as the printing press poured forth book after book. Burton's assessment: "We are oppressed with (books), our eyes with reading, our fingers with turning" (Agger, 2010).

As technology expands and makes new applications to communication, researchers and thinkers are in agreement on one general point: the use of online information as a primary source for news and information will impact literacy and understanding among those who use this media regularly. The question to be addressed in this study is if it is the *content* presented

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in an online context or if it is *the nature of the online media* itself that provides the greater impact on understanding and literacy skills.

Before beginning, it is worth a moment to provide definitions for two terms used in this section that will be used throughout the paper—literacy and understanding. If someone wishing to analyze defines literacy as simple reading and writing it will be hard to come to any meaningful distinction between the use of the so-called traditional media (like books) and electronic media. The reason for this is that each media requires the ability to read and this is supported by the ability to write, so that media users can recognize and take into account grammatical conventions as they read (Malloy, 2006).

"Literacy," then is defined as the ability to read and write, and using that ability to collect general knowledge. "Understanding" is the mental processing and synthesizing of information.

Understanding is important because it reflects the outcome of literacy (Bortins, 2010). The purpose of literacy is to achieve some outcome; perhaps it is to develop engaged citizens, perhaps it is to obtain some practical knowledge that permits one to achieve a specific task, or it may be to provide hints about how one is to act in certain cultural contexts. Both of these things together—literacy and understanding—work to create socially functional individuals (Bortins, 2010).

CONTENT

One of the primary struggles in the battle over literacy centers on content. More specifically, is the act of reading online a literary endeavor? The reason this question gets

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asked is due to the opinion that creating articles and information on the web is substantively different from creating articles and information on paper (Chaouli, 2005).

The rise of social networks—Facebook is now at the top of the list of the world's most visited sites on the web (Doubleclick, 2010)—has been advanced as evidence that the quick, informal style of messaging and posting is a 180-degree departure from the slower, more deliberative type of writing on paper. Ken Pugh, a cognitive scientist, says writing and reading these "fractured messages" has an impact on how well online users develop literacy skills and understanding (Rich, 2008).

> Taking the time to ruminate and make inferences and engage the imaginational processing is more cognitively enriching, without a doubt, than the short little bits you might get if you're in the 30-second digital mode. (Rich, 2008)

Critics of the digital realm as the future of literacy also point to two related ideas—the first is that research shows that "internet reading" is a bit of a misnomer; and the second is that good thinking and good writing are connected. Research by web usability guru Jakob Nielsen shows there appears to be little true reading on the internet. Instead, readers are better called content scanners who zip through page after page of text. The result, critics say, is that those who read online do not encode information so that it eventually becomes embedded as understanding (Nielsen, 2006; Kelleher, 2010). Without this information, the content generated by these individuals is shallow because they cannot or do not think deeply (Kelleher, 2010). The result is a concern that the online environment is not conducive to building or extending literacy.

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One of the difficulties of discussing literacy in an online environment is the many different types of "writing" or "reading" that take place. Critics tend to point to texting and the breezy, informal tone of social networks as one of the major forces undermining literacy (Kelleher, 2010). The research in this area is developing, but at this time it seems as if texting, messaging, social networking and so forth is a supplemental manner of communication instead of a primary one (Ito, 2010). In one of the more extensive studies available, Danah Boyd finds that youth mostly use online media "…as another method to connect with friends and peers in a way that is seamless with their everyday lives" (Ito, 2010, p.84). We will not spend a great deal of time in this area because texting and "writing" or "reading" on social networks seems akin to placing a quick call to a friend. Its purpose is short, utilitarian information exchange, not creative, expressive, or deeper information exchange. We wish to focus on the latter type of content in this essay.

One of the top content-based concerns about the digital environment is that users of the media are no longer getting vetted, quality writing of the type that often comes through print (Wallis, 2008). Instead people seem to value the ease of obtaining information over the quality of the information (Baildon, 2009). An article in the New York Times describes online reading as an "…enemy of reading—diminishing literacy, wrecking attention spans and destroying a precious…culture that exists only through the reading of books" (Rich, 2008) and in traditional print.

However, the same article describes people who regularly read online stories—some as long as 45 pages—for leisure (Rich, 2008). The problem, for those involved in traditional literary education, is that the content is elliptical and the stories may contain spelling and grammatical errors. As award-winning writer David McCullough said, "Learning is not to be

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found on a printout. It's not found at the touch of a finger. Learning is acquired mainly from books, and most readily from great books" (Rich, 2008).

One question that is not often examined in the back-and-forth about digital content is how much it varies from its print-based counterpart. There are two approaches to this question—a side-by-side comparison of content (at least as much as is possible in a short study such as this) and a look at actual writing practices between print and online.

The research on side-by-side content seems to indicate that a good deal of online content parallels that of the print world. Individuals seeking an old book that no longer has copyright protection may be able to find a complete copy online (Project Gutenberg, 2010; Christian Classics Ethereal Library, n.d.). Those seeking news will often find the content they access online is the same as the content in the print version.

A large, multi-nation examination of content shows that online news content in the United States, United Kingdom, Russia, France and Germany tends to mirror the content in the traditional media (Quandt, 2008). Where there are differences, the media tend to add occasional links or perhaps a little extra print content, though overall the package is deemed "underwhelming" and a sign that there is a strong status quo in the news and information business (Quandt, 2008). Added to this, Quandt found, is that the topical content also holds close to cultural expectations for the rest of the media. For example, German websites (as with similar websites and print media within the country) tend to cover more economic news, sports and culture. The French are heavy on domestic and international political news. The United States and Russia are crime heavy (Quandt, 2008). The bottom line to these findings is that the so-called digital revolution did not happen, at least as it involves content. Indeed, Quandt writes that online information is basically what is found in offline sources; major

information outlets are not "making use of the World Wide Web's potential for new types of writing, producing, linking and interacting. It seems highly likely they just want their usual news—fast and reliably" (Quandt, 2008, p. 735).

A quick examination of the 100 most-visited websites reveals that about a third of them are communication-based news, blogging or sites that permit or require some sort of active literacy-based skill, such as writing, reading for enrichment or communicating with others (Doubleclick, 2010). This gives support to the claim of educator Judy Gregory, who argues that all the talk about the fundamental differences between literacy-based content generation in print and online is overdone (Gregory, 2004).

The reason they are overdone, she claims, is due to an unfounded focus on the media (print versus digital) instead of on genre (Gregory, 2004). For example, she points out that online writing tips like writing 50 percent shorter for online than for print; writing for scannability; writing for restless readers; and chunking writing all have well-accepted antecedents within print writing. Gregory claims a good many of the issues between print and online literacy can be harmonized if we understand the goal of the genre for which we are writing. For example, she sets forth the idea that print writing and television writing—which once were at odds—now coexist peacefully once writing for broadcast was understood as its own genre.

If Quandt's and Gregory's analysis is sound, then some of the concern about online readers losing a sense of connection to a common culture found through print may be unnecessary (Grohol "Internet Use," 2004; Baum & Groeling, 2008). If there is a reasonable consistency of content between print and online, it seems logical to argue that there is a larger common store of ideas that would expose consumers of information to similar ideas,

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interpretations and explanations. This tendency is further amplified upon examining research about how readers select online content.

Online readers tend to approach the digital product in much the same way as they do the print product, looking for cues as to what information is important to know. It appears as if very few online users surf widely (Tewksbury "What do Americans Know?" 2003). In print products, people are directed to important information by headline use or where it sits on the page (Thorson, 2008). Important online content is highlighted by the use of various "news recommendation engines" that provide readers with lists of stories that are tagged as "most popular," "most e-mailed," or "most viewed" (Thorson, 2008). This public endorsement effect tends to have the result of granting a story greater credibility—these recommendation engines tend to be seen by readers as independent (which is to say free from an obvious vested interest) and are perceived as being agenda free (Thorson, 2008).

One added benefit of online information is that news has a longer shelf life than it does in print. Thorson found that about half of the articles in her research remained on the "most popular" list for more than one day. This means information remains public longer, permitting more people to access common ideas while adding a different twist from traditional print media—a public endorsement. And online readers who regularly comment on news stories say they use endorsement engines (specifically the recommendations function) to learn what individuals in their specific digital environment are reading and thinking (Swidey, 2010).

The question that arises in this discussion, then, is *what* those who tend to get their information from online sources read. In this, it appears as if people use online media differently than print media. However, this is one of the points in current research that is not

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entirely clear. Some research says sports is the most popular online content within the news realm. Others claim it appears to be opinion and news.

Tewksbury ("What do Americans Know?" 2003) found that online readers self report that they have an interest in public affairs and are also more likely to report reading a newspaper or watching CNN or listening to radio. They are less likely to watch network and local television news. However, actual observation found that users of online news do not access public affairs news to the level of their self report. The observation found that about 25 percent of all page views were for sports, about twice as much as for any other single area.

Thorson's findings in her referral engines study indicate news and opinion are the most popular fare, while sports stories rarely showed up on the lists (Thorson, 2008). Her findings indicate "life-issue stories," stories that touch on personal or health matters, were among the most popular on the referral engines; and that stories that tended to take a counterintuitive look at issues tended to land on the list.

These findings are not the contradiction they may seem. The motivations of each of the groups studied are different. Tewksbury ("What do Americans Know?," 2003) finds that people tend to go online with a purpose. Rather than hunting for information, they gather it—and they know where they want to go to gather it. As a result, the individuals online regularly seek out the news they want, be it last night's score or some timely piece of information. These are rarely stories having the "wow" factor, and so they are not commonly recommended or e-mailed to people. Thorson's research has to do with how people are directed to content. The people in her study were more inclined to be led to interesting stories—and to learn what the community of online users thought important; they look to see

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what others have to say. This is nothing more than basic social proof theory at work (Cialdini, 2009).

This is a point that critics of online literacy should note. Tewksbury's finding provides support for the oft-cited view that online reading tends to make people narrower instead of wider (Bauerlein, 2009). In fact, research consulted for this study (Nie, 2010; Tewksbury "Audience Fragmentation", 2005) provided strong evidence that online media users tend to ingest those sources that fit their preconceived interest in a topic. However, Thorson's work indicates that the breadth of online content provides ample opportunity for users to come in contact with new sources or ideas deemed useful or important by the community. This is similar to flipping through a magazine and being drawn into an article we would not have otherwise read. There seems to be reasonable evidence that people are drawn into content they would have ignored in print because it is recommended by a friend or by a search engine. Online, though, they may be exposed to it due to the free-flowing nature of content (Knobloch-Westerwick, 2008; Grohol "The Internet," 2006).

A study by the Pew Internet and American Life Project says that more than 60 percent of all Americans now get some of their news from the Internet, though 92 percent of respondents said they get their news from more than one type of media outlet (Gross, 2010). The same study also points out that for more and more people the act of getting news is now an interactive and social activity. Almost 40 percent of people who get news online reported that they have commented on a story they read, reported news or spread news using social networks (Gross, 2010). And to pick up on our earlier line of discussion, Pew found that eight of 10 online news users seek weather information, and 73 percent followed national news. A little more than half said they look for sports news, and 47 percent say they look for

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entertainment or celebrity news (Gross, 2010). Most of this news comes from established news and information entities.

As stated earlier, the theory that online media tends to isolate people may not be fully correct. It is true that media use in the digital realm is often solo, but the fact that the Pew survey found that nearly four of 10 people have communicated news, spread it or commented about it challenges the notion that digital media tends toward a narrow experience when compared with mainstream media (Nie, 2010). Shelley Boulianne, in a study examining how or if internet use affects social connection and engagement, found the very things reported by Pew increase "…the likelihood of finding a positive and larger effect of internet use on engagement. In other words, internet use may reduce the costs of participation (time and effort) by increasing the availability of information" (Boulianne, 2009, p. 205). Lowering barriers to entry makes it simpler for people to access, generate and respond to news.

This "placing of the cookies on the lower shelves" connects to a study done by William Eveland, Jr. that investigates if the medium through which an individual obtains their news content impacts understanding. It was expected that those who were a part of the study would be able to achieve greater recall of facts in the traditional media than in web media due to the fact that the more linear structure and greater content coherence fit better with mental processes (Eveland, 2002). Michel Chaouli goes a bit further in his argument about how understanding is derived in online stories. He writes "…some of the difficulties with reading hypertexts derive from the curtailment of interpretive freedom we experience when the text burdens us with cognitive demands, when, for example, it places the onus of determining the semantics of a link squarely on us" (Chaouli, 2005, p. 610).

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Eveland's research results showed that overall print newspapers and television produced more accurate recall of facts. But they also found something they were not fully looking for—that the web was superior to print newspaper and television in helping users structure information for retention in memory. Apparently the linear structure of print and broadcast allowed for greater immediate recall, but the fact that online news consumers were able to group several stories about the same general topic—and in a way that was under the control of the news user—aided recall.

This study does not cleanly fit with Nielsen's well-known work about how people read on the web. Nielsen reports that just 16 percent of people tended to read web pages word for word, but almost 80 percent of people scanned the pages (Nielsen "How Users Read on the Web," 1997). In his seminal work about how web pages are scanned, he provided samples of readable text—keywords, subheads, and bullet points. All are ways to increase readability on the web. These findings fit well with Eveland's first finding that recall of facts is greater in print and television than online due to the fact that broadcast is short and can be attended to for a time. Print requires some sustained attention and the relatively short column widths and short paragraphing allow for quick reading that rises above the type of scanning that exists on the web. In fact, it appears the addition of paragraphing and punctuation to the written word is one of the key elements in historical literacy (Agger, 2010).

However, the finding about structured knowledge seems not to fit with Nielsen. The reason is that Nielsen's studies, though sound and accepted, do not take into account information that is presented across different media types or that allows the reader to take the initiative to access certain information at certain points in the cognitive process. Baildon refers to this type of mental process as lateral thinking (Baildon, 2009).

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The ability to think about and to think through content laterally allows the individual to make mental connections that link information together. In the case of Eveland, this linked information would allow for greater recall due to the fact that the mental connections made bring greater attention to the task of reading, gathering information and applying the understanding that comes from that information (Eveland, 2002).

There is a great deal of content online written in a traditional way, that is, with standard use of grammar and punctuation and the conventions of literacy. The area we have focused on in this section of the paper falls into this category. Research does not provide any clear answer about how—or if—reading content online undercuts literacy and understanding. Some experts believe the two types of reading—in traditional print and online—require different skills and mental abilities, though the research is clear that some change to literacy and understanding is taking place. It is at this point where we begin to leave the discussion about content and consider if the nature of digital media might not provide a clearer answer about why a change to literacy and understanding is underway.

THE NATURE OF THE MEDIUM

Moving through online content—select just about any site at random—one can easily find writing done in a conventional format. It is true that there are media (phones and social networks, for example) where the writing is choppy, minimal and full of fairly indecipherable abbreviation. In the main, though, the writing is standard on the internet. It may not qualify as literary or academic, but this is also true of magazines and newspapers. There are many different forms of writing, but these forms tend to fall into the @ the introduction of details and other media into the text increased, instead of decreased, interaction with the information. When many images are given, though, there was lower recall.

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> It appears that the mental processes engaged when an individual invests more effort into encoding the text of a selected online news story are similar to mental processes engaged by encoding high-imagery radio ads. Both tasks appear to result in cardiac acceleration, which in theory, is due to more resources being allocated to retrieving information from long-term memory to aid encoding of the message. (Wise "Choosing and Reading," 2008, p. 82)

Wise draws the conclusion that the medium moves people to invest more effort into processing the information in the story they select. This is not in accord with the commonly held belief that links and multimedia might lead to information overload (Eveland, 2002; Chaouli, 2005). If we go back to Nielsen for a moment, one of his later studies shows that online readers scan pages in an F-shaped pattern (Nielsen "F-Shaped Pattern", 2006). Critics of internet-based education and knowledge gathering often cite this as evidence that online literacy encourages bad habits, thus resulting in bad outcomes (Bauerlein, 2009). What is overlooked in Nielsen's work is that the pages used to acquire this finding were a page of search-engine results, a product page on an e-commerce site, and a page that told about a corporate entity (Nielsen "F-Shaped Pattern," 2006). Despite what Nielsen claims, all his study shows is that people scan pages in which they may not have much interest. He does not demonstrate that all, or even most, pages are routinely scanned.

Wilson Lowrey and Kyun Soo Kim found that motivation plays a critical role in how accessing and retaining information takes place (Lowrey & Kim, 2009). If it is correct that a good deal of the information on the internet is similar to information in print, then it also stands to reason that reading outcomes and knowledge gathering would be somewhat similar

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as well. It is well known that readers scan print text, especially if they are searching for information or are assessing the interest or import of that information (Gregory, 2004).

> The idea that readers skip and skim and that we should, therefore, write for scannability isn't new. It appears in discussions about technical writing…in comments about Plain Language writing…and in discussions about professional writing. It also appears in discussions about motivated readers who ask questions of texts. (Gregory, 2004, p. 278)

The issue of motivation is important in considering the nature of literacy and understanding in the digital medium. As mentioned above, there are youth who are not greatly interested in reading books, but who will wade through 45-page stories or who will "…stay awake until 2 or 3 a.m. reading articles about technology or politics—his current passions—on up to 100 web sites" (Rich, 2008). Author Paul Wallis is a bit more pointed:

> The Net, ironically, involves a lot more physical reading, if not necessarily quality content reading. What's at issues are the values, and the arguments have now become more vague than ever…Why is it that teenagers, being hit by puberty, peer groups, youth culture, adolescent growth, the weird world of education, and the oncoming threat of higher education, are expected to become avid readers? People being driven into a state of terminal time management crisis are hardly likely to become enthusiastic readers. If they're not interested, why not? (Wallis, 2008)

The nature of the online reading environment allows for individuals to seek their interest(s). This creates a problem for those who highly regard traditional literacy because the freedom dilutes the pool of common literary knowledge. Wallis is correct, however, that there appears

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to be a great deal of reading and writing on the internet. Blogs and news sites dot the top 100 sites in terms of unique visitors (Doubleclick, 2010).

Another study by Wise found that online text augmented with a video tended to increase the retention of knowledge when it was attached to a story written in a narrative style (Wise "When Words Collide," 2009). This is a little counterintuitive when one considers the finding that knowledge retention was *not* aided by the simpler, more stripped down inverted pyramid form. What accounts for this? The author says interest, increased heart rate (which was present in those with higher retention), and experience with the subject matter were decisive factors. Kelly Chandler-Olcott finds the ability of individuals to follow personal interests, read, and take part in the digital community meets the definition of meaningful literacy (Chandler-Olcott, 2009). In a comment about the culture of Wikipedia, she writes:

> What I know is that s/he has assumed a writerly identity, learned the community's conventions and engaged in civil but direct conversations with others about improving online text for a particular purpose. What could be more consistent with the goals of literacy instruction? (Chandler-Olcott, 2009, p. 73)

There are some who believe interest and motivation is a critical element in literacy (Wallis, 2008) and in understanding (Agger, 2010). While there is good reason to applaud this, there is a concern that the a la carte nature of the online world may create disconnection that undermines the social capital of the digital environment. This is the concern that provides the impetus for the belief that the web will take away necessary social touchstones that flow from reading common texts (Rich, 2008). One study shows that online readers of public affairs/political news tend toward more extreme views, creating a strong small-group identity that can fragment culture (Tewksbury "Audience Fragmentation," 2005). These

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microcultures are possible because the economics of the digital world allow content to be disseminated cheaply, something traditional media cannot do (Nie, 2010). In fact, the Pew Internet and American Life Project finds that those who e-mail their friends or relatives at least once a week are 25 percent more likely to talk with them weekly by phone than those who are not connected digitally. Further, regular internet users tend to have a larger network of significant relationships—37 individuals compared to 30 for those who rarely or never use the internet (Grohol "The Internet," 2006). Harmonizing these studies, there is a strong suggestion that reading and communicating online tends toward the development of active community and interpersonal relationships.

THE WAY FORWARD

> What we are losing in this country and presumably around the world is the sustained, focused, linear attention developed by reading. I would believe people who tell me internet develops reading if I did not see such a universal decline in reading ability and reading comprehension on virtually all tests. (Dana Gioia, qtd. in Rich, 2008)

The concern about literacy in the digital age, to some extent, overlooks a larger trend. In 1983, well before the online world appeared, there was concern about decreasing reading and literacy. A national report, *A Nation at Risk*, found that 13 percent of all 17-year-olds in the United States were functionally illiterate; that average verbal scores on the SAT fell over 50 points between 1963 and 1980; achievement tests showed consistent declines in English; and many 17-year-olds did not have higher order intellectual skills, such as drawing correct inferences from written material (The National Commission, 1983). Traditional literacy has been a standard in crisis for some time (Bortins, 2010).

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In reading dozens of articles, briefs, columns, and research about digital and traditional literacy there was one great truth that was occasionally approached—and that truth is that traditional literacy and understanding and online literacy and understanding should not be examined in light of which is better and which is worse. Doing so frames the issue incorrectly. Online literacy is not better or worse, it is simply different (Agger, 2010). Throughout this work we caught glimpses of how content between the two areas varies—ranging from close vetting (Crook, 2006) to self-generated, self-published stories (Rich, 2008)—and how the content is similar (Gregory, 2004). We also considered the nature of the media, and in this we essentially see many differences in detail (Kelleher, 2010) between the two—such as print's tendency to draw people together in a large community and digital's tendency to allow people to self select their community (Barone & Wright, 2008).

So to answer the question posed at the beginning of this essay—is it digital content or the nature of the online environment that has a greater impact on literacy? Given the fact that a good deal of digital content is similar to—or the same as—print content, it does not seem as if the greatest impact comes from the content online. It is the nature of the technology—the instant dissemination, the ability to easily seek content of interest, the ability to create—that is providing the challenge to traditional literacy.

We are in the midst of a paradigm change. Arguments, such as those in the quote that opened this section and by Mark Bauerlein in the book *The Dumbest Generation* are worth hearing, but they miss a fundamental point—trying to analyze digital literacy and understanding by applying the standards of traditional literacy will misrepresent the things that make each worthwhile. The works consulted for this study take it for granted that many people today are not reading books, and fewer are reading the Great Books (Rich, 2008). This

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does not mean people are not reading at all. Individuals are picking up books and reading them—total United States print book sales in 2009 were 724 million, down a bit from 2008 in a tough economic year (Flamm, 2009). It appears as if more people are reading online, as we have illustrated earlier (Project for Excellence in Journalism "Online," 2010). What we cannot say at this time is how much or for how long people read online. The research is not out there. However, we can tease from the data we have that blogs, social networks and news sites are popular—taken together, the top 10 get about 1.2 billion unique visitors each month (Doubleclick, 2010). This is a good deal of reading and, perhaps, writing taking place.

The concern is that this reading, which is not as long or as involved as traditional print will create what author and blogger Nicholas Carr describes as "the shallows," the sense that instead of being able to focus deeply and at length we are becoming shallower (Agger, 2010). To counter this, a point made by several thinkers is worth throwing into the mix—and that is that we tend to switch seamlessly between literacies (Barone & Wright, 2008). In their commentary about a hybrid digital/traditional reading class, Barone and Wright illustrate how book reading can be combined with online chat with other classmates; this expands to students being given writing prompts based on the book, which they complete quickly and send out for comment so that they can get feedback and, perhaps, rewrite.

Though some like to point to web content as substandard content in comparison to traditional literature, there appears to be quite a bit of good content online—content that if the web statistics are to be believed is being accessed and, presumably, read (Agger, 2010). What appears to be happening is a partial return to ancient ideals. By this we mean that prior to the coming of literacy, the oral word was the way knowledge was rooted and spread. This was a very public and social method of spreading knowledge. Literacy, as it supplanted orality and

spread through cultures, erased a good deal of the widespread, real-time feedback and enrichment that existed in oral culture (Ong, 1982). Literate cultures never did away with the social component of knowledge, though it did essentially relegate them to places of learning (Agger, 2010). However, digital culture allows for the widespread dissemination of ideas, immediate feedback and enrichment of these ideas in a way that is more in line with oral culture (Leu, 1999). In short, the pendulum seems to be swinging back to some sort of middle ground.

There is a new literacy and a new way of understanding that is rising. No matter where we are going, it is hoped "…that we will reserve a place for attentive thinking…the literary, attention-capable mind may not quite go the way of the chanting Greek poets…but if it does, our culture will lose something ineffable. And we're likely to have forgotten was it is or was" (Agger, 2010).

References

Agger, M. (2010, June 7). The internet diet: Nicholas Carr is a sane guide to how it's changing us." Retrieved June 21, 2010 from http://www.slate.com/id/ 2255923/

Baildon, M. & Damico, J. (2009). How do we know?: Students examine issues of credibility with a complicated multimodal web-based text. *Curriculum Inquiry* 39(2), 265-285.

Barone, D. & Wright, T. (2008). Literacy instruction with digital and media technologies. *The Reading Teacher* 62(4), 292-302.

Bauerlein, M. (2009) *The dumbest generation: How the digital age stupefies young Americans and jeopardizes our future*. New York: Jeremy P. Tarcher/Penguin.

Baum, M. & Groeling, T. (2008). New media and the polarization of political discourse. *Political Communication* 25, 345-365.

Bortins, L. (2010). *The Core: Teaching Your Child the Foundations of Classical Education*. New York: Palgrave MacMillan.

Boulianne, S. (2009). Does internet use affect engagement? a meta-analysis of research. *Political Communication* 26, 193-211.

Chandler-Olcott, K. (2009). A tale of two tasks: editing in the era of digital literacies. *Journal of Adolescent & Adult Literacy* 53(1), 71-74.

Chaouli, M. (2005). How interactive can fiction be? *Critical Inquiry* 31, 599- 617.

Christian Classics Ethereal Library. (n.d.). Christian classics ethereal library. Retrieved June 27, 2010 from http://www.ccel.org/

Cialdini, R. (2009). *Influence: Science and practice (5th ed)*. Boston: Pearson.

Crook, C. (2006) Beyond the printed page. *Journal of Computer Assisted Learning* 22, 229-230.

Czitrom, D. (1982). *Media and the American mind: From Morse to McLuhan*. Chapel Hill, NC: University of North Carolina Press.

Doubleclick Ad Planner. (2010) The 1,000 most-visited sites on the web. Retrieved June 23, 2010 from http://scienceroll.com/2010/06/04/the-1000-most-visited-sites-on-the-web/

Volume 12, Number 3: November 2011
ISSN: 1535-0975

Eveland, W., Seo, M. & Marton, K. (2002). Learning from the news in campaign 2000: An experimental comparison of TV news, newspapers, and online news. *Media Psychology* 4, 355-380.

Flamm, M. (2009) Book sales end year with surprise. *Crain's New York Business* Retrieved June 27, 2010 from http://www.crainsnewyork.com/article/20091229/FREE/912299989#

Gregory, J. Writing for the web versus writing for print: Are they really so different? *Technical Communication* 31(2), 276-285.

Grohol, J. (2004). Internet use cutting into TV viewing and socializing. Retrieved June 22, 2010 from http://psychcentral.com/blog/archives/2004/12/31/internet-use-cutting-into-tv-viewing-and-socializing/

Grohol, J. (2006). The internet brings people together, does not isolate. Retrieved June 22, 2010 from http://psychcentral.com/blog/archives/2006/01/30/the-internet brings-people-together-does-not-isolate/

Gross, D. (2010). Survey: More Americans get news from the internet than newspapers or radio. *Cable News Network.* Retrieved June 22, 2010 from http://www.pewinternet.org/Media-Mentions/2010/CNN-Tech-Online-News.aspx

Ito, M., Sonja B. & Bittanti, M., et al. (2010). *Hanging out, Messing Around, and Geeking Out: Kids Living and Learning with New Media*. Cambridge, MA: MIT Press.

Kelleher, K. (2010). How the internet changed writing in the 2000s. Retrieved June 21, 2010 from http://gigaom.com/2010/01/03/how-the-internet-changed-writing-in -the-2000s/

Knobloch-Westerwick, S., Appiah, O. & Alter, S. (2008). News selection patterns as a function of race: the discerning minority and the indiscriminating majority. *Media Psychology* 11, 400-417.

Leu, D., Karchmer, R. & Leu, D. (1999). The Miss Rumphius effect: Envisionments for literacy and learning that transform the internet. *The Reading Teacher* 52(6), 636 642.

Lowrey, W. & Kim, K.S. (2009). Online news media and advanced learning: a test of cognitive flexibility theory. *Journal of Broadcasting & Electronic Media,* 53(4), 547-566.

Malloy, J. & Gambrell, L. (2006). Approaching the unavoidable: Literacy instruction and the internet. *The Reading Teacher* 59(5), 482-484.

Nie, N., Miller, D., Golde, S., Butler, D. & Winneg, K. (2010). The world wide web and the U.S. political news market. *American Journal of Political Science* 54(2), 428-439.

Nielsen, J. (2006). F-shaped pattern for reading web content. *Jakob Nielsen's Alertbox.* Retrieved June 22, 2010 from http://www.useit.com/alertbox/reading_pattern.html

Nielsen, J. (1997). How users read on the web. *Jakob Nielsen's Alertbox.* Retrieved June 22, 2010 from http://www.useit.com/alertbox/9710a.html

Ong, W. (1982). *Orality and Literacy*. New York: Routledge.

Project for Excellence in Journalism. (2010) State of the news media 2010: Online. Retrieved May 14, 2010 from http://www.stateofthemedia.org/2010/online_summary_essay.php *Project*

Volume 12, Number 3: November 2011
ISSN: 1535-0975

Project Gutenberg. (2010). Main page. Retrieved June 27, 2010 from http://www.gutenberg.org/wiki/Main_Page

Quandt, T. (2008) (No) news on the world wide web? A comparative content analysis of online news in Europe and the United States. *Journalism Studies* 9(5), 717-738.

Rich, M. (2008) Literacy debate: Online, r u really reading? Retrieved June 22, 2010 from http://www.nytimes.com/2008/07/27/books/27reading.html

Swidey, N. (2010). Inside the mind of the anonymous online poster. Retrieved June 25, 2010 from http://www.boston.com/bostonglobe/magazine/articles/2010/06/20/inside_the_mind_of_the_anonymous_online_poster/

Tewksbury, D. (2005) The seeds of audience fragmentation: Specialization in the use of online news sites. *Journal of Broadcasting & Electronic Media* 49(3), 332-348.

Tewksbury, D. (2003). What do Americans really want to know? Tracking behaviour of news readers on the internet. *Journal of Communication* 53(4), 694-710.

The National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. Retrieved June 25, 2010 from http://www2.ed.gov/pubs/NatAtRisk/index.

Thorson, E. (2008) Changing patterns of news consumption and participation: News recommendation engines. *Information, Communication & Society* 11(4), 473-489.

Wallis, P. (2008) Opinion: Literacy and generations of change. Retrieved June 21, 2010 from http://www.digitaljournal.com/article/

Volume 12, Number 3: November 2011
ISSN: 1535-0975

Wise, K., Bolls, P. & and Schaefer, S. (2008). Choosing and reading online news: How available choice affects cognitive processing. *Journal of Broadcasting & Media* 52(1), 69-85.

Wise, K., Bolls, P., Myers, J. & Sternadori, M. (2009) When words collide online: How writing style and video intensity affect cognitive processing of online news. *Journal of Broadcasting & Electronic Media* 53(4), 532-546.