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Eternal or Ephemera? The Myth of Permanence in Online Writing

Katelyn L. Burton

University of Rhode Island

Abstract

For many, the permanence of online texts is an unquestionable fact. Though the assumption of permanence does hold a degree of truth, this article asserts that it is not necessarily the default mode we believe it to be within the digital era. Through an analysis of various digital media, this article will illuminate a number of cracks and fissures within the veneer of permanence. These gaps manifest in three primary forms: incompatibility and obsolescence; insecurity and deletion; and obscurity. As many composition instructors move to increasingly digital pedagogies, these digital gaps and losses become ever more alarming. Instead of urging writers away from digital texts, this analysis prompts one central question: Is longevity in the digital realm desirable? Rather than answering this question ourselves, this article pushes for an increased focus on temporality within the composition classroom so that we can engage in these conversations not *for* our students, but *with them*. Urging students to consider these questions of temporality is a first step towards more responsible and informed digital composition practices.
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For many, the permanence of online texts is an unquestionable fact. Every status update, photo album, blog entry, forum comment, and chat conversation remains floating out there in the great gaping world of binary code, interminably, indefinitely, forever. In fact, the sheer persistence of these digital texts has become the stuff of lore. The unlucky co-ed busted for photos with alcohol. The employee fired for posting a status ranting about a boss or company policy. Students and professionals alike are often haunted by these tales. Such stories are exchanged in gossip, passed on as warnings, spouted as lectures. This is the new mediated Miranda right: anything you post can and will be used against you.

Admittedly, this is the popular account of the situation. It is a bit dramatized; sensationalized to catch and hold the attention of the masses. Still, the underlying assumption is worth noting. That is, the utter permanence of digital texts is a given for many. Perpetuity is typically assumed and this notion is not unique to popular culture. In fact, an increasing number of scholars are taking an interest in the permanence of digital texts (Brooke, 2000; Pruchnic & Lacey, 2001; Swadley, 2008; Mayer-Schönberger, 2009; Skinnell, 2010). Many of these scholars have jumped eagerly into the world of the digital, exploring, examining and debating the various advantages and drawbacks of permanence within the digital realm. While their accounts of digital permanence are considerably less sensational than the popular versions, these scholars tend to be no less certain than the general public about the longevity of digital texts. Permanence is all too often assumed to be an inherent feature of digital media.

Though this assumption of permanence does hold a degree of truth, I will assert that it is not necessarily the default mode we believe it to be within the digital era. Through an analysis of various digital media, I will illuminate a number of cracks and fissures within the veneer of permanence. These gaps, insignificant though they may seem, have already done significant damage, allowing countless texts to slip from the digital memory. Those in academia often feel the

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effects of these gaps most intimately. Students and scholars alike can attest to the numerous flaws in the system, each with his or her personal story of frustration and, often, loss. Some of these cases will be discussed in further detail below, serving to illustrate the various lapses and failures of digital longevity.

As many composition instructors move to increasingly digital pedagogies, these digital gaps and losses become ever more alarming. Many instructors now assign and require a variety of digitally based texts, from the basic blog post to social networking interactions to complex and elaborate multi-modal texts that span networks and media. But what is the shelf life of these works? I have the luxury of flipping open a three-ring binder and tabbing through pages to access my old coursework. Will today's students, composing in the digital tradition, have the same security? These questions are not meant as a neo-Luddite's warning to retreat back to the safety of our typewriters and filing cabinets. Instead, they are meant to point to a new and evolving attitude towards composition, one that can help us to embrace the advances and, yes, the flaws of the digital age. What we may lose in longevity we gain by opening up larger discussions of temporality. But to know where the future is heading, we must first understand the recent state of scholarship on digital permanence.

1. The Myth of Permanence

As instructors and students began to embrace digital texts in the late 1990s and early 2000s, a large contingent of scholars rushed to embrace digital media as a panacea for posterity. Jeff Pruchnic and Kim Lacey (2001) have noted the benefits of digital texts in their article, "The Future of Forgetting: Rhetoric, Memory, Affect." Here, Pruchnic and Lacey discuss the ease and convenience of storage as it becomes increasingly digitized, stored safely in a number of electronic devices ranging from computers and smart phones to USB drives and databases. Thanks to the wonder of technology, one's collective body of work can now be easily stored and filed away on a flash drive smaller than one's pinky finger. Yet while most individuals do store digital texts on their own personal computers, flash drives, or hard drives; many (if not most) digital texts are typically stored online through websites, blogs, social media, and online storage facilities. These digital texts become part of a larger body of digital texts. They become a small piece of the giant digital storage system that is the World Wide Web, a body of information and documents that grows larger every second of every day. Because of its sheer size, this collective storage system is often assumed to be "too big to fail." But that policy has proved problematic in the past.

Perhaps the most renowned scholar on the topic of digital permanence is Viktor Mayer-Schönberger (2009), author of *Delete: The Virtue of Forgetting in the Digital Age.* Mayer-Schönberger's text offers a comprehensive discussion of digital texts and the comfort of digital permanence in our mediated world. According to Mayer-Schönberger, four main factors contribute to the permanence of digital texts: digitization, cheap storage, easy retrieval, and global reach. And indeed, technologically speaking, digitally storing texts is cheap, easy, and painless. Much like Pruchnic and Lacey, Mayer-Schönberger has argued that the ease of digital storage is contributing to a larger shift in the way we approach digital texts, "This overabundance of available storage capacity makes it easy for us to shift our behavioral default regarding external memory from forgetting to remembering" (p. 67). According to Mayer-Schönberger, "With such an abundance of cheap storage, it is simply no longer economical to even decide whether to remember or forget" (p. 68). In essence, Mayer-Schönberger has asserted that storing digital texts has become so easy, so affordable, that it is not even worth thinking about whether or not to store digital texts. It should be automatic. Lev Manovich (2002) has offered a similar argument, neatly summarizing his point in one colorful sentence: "Thus, if in 'meatspace' we have to work to remember, in cyberspace we have to work to forget" (62-63). In many ways, this assessment of digital permanence hits home. For many, this process of digital storage has indeed become automatic.

Mayer-Schönberger has pushed his argument a step further, though, moving into more philosophical territory about the nature of mankind:

> It is a very human strategy to ensure that we haven't lived in vain, that we aren't quickly forgotten after our deaths as if we've never lived. . The result is a world that is set to remember, and that has little if any incentive to forget. . Today, forgetting has become costly and difficult, while remembering is inexpensive and easy. With the help of digital tools we—individually and as a society—have begun to unlearn forgetting. (p. 91-2)

Perhaps we, as humans, do wish for our digital texts to carry on into posterity. And our technological affordances do enable a certain degree of ease in storing and safeguarding digital texts.

But Mayer-Schönberger and, for that matter, Pruchnic and Lacey and Manovich have made some assumptions about the future reliability of technology that leave me with some lingering questions and doubts: Should we trust these feelings of security? Is anything truly safe when stored digitally? These questions are difficult to answer because they leave us in largely unexplored territory. When one takes a step back, it becomes immediately clear that all these comforting ideas about digital permanence are planted firmly in the here and now. Yes, we currently have the convenience of storing and accessing many of our digital texts without much difficulty. However, it is vital that we recognize that we are temporally situated within the first few decades of the dawn of the Web. We haven't yet had the luxury of time to understand the long-term ramifications of mediated memory. Will these same ideas about permanence and longevity hold true ten years from now? Twenty years? One hundred years?

Though the conversation surrounding the future viability of our digital creations is relatively new, the fear and caution associated with composing in a new medium is not. In fact, Plato's *Phaedrus* (2008) addresses a very similar debate as it relates to the rise of the written word. Regarding Theuth's invention of letters, Thamus worries:

> ... for this discovery of yours will create forgetfulness in the learners' souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves. The specific which you have discovered is an aid not to memory, but to reminiscence, and you give your disciples not truth, but only the semblance of truth; they will be hearers of many things and will have learned nothing; they will appear to be omniscient and will generally know nothing; they will be tiresome company, having the show of wisdom without the reality. (122)

Thamus' concerns are those of a starkly different time and yet his hesitations are surprisingly familiar.

In fact, author Nicholas Carr (2010) has recently stirred up similar concerns with his book, *The Shallows: What the Internet is Doing to our Brains.* Here, Carr investigates his hypothesis that the rise of the Internet has impacted our minds in a strikingly negative way. He argues, "We're too busy being dazzled or disturbed by the programming to notice what's going on inside our heads. In the end, we come to pretend that the technology itself doesn't matter. It's how we use it that matters, we tell ourselves. The implication, comforting in its hubris, is that we're in control" (3). Carr's fears indeed seem to echo those of Plato's *Phaedrus*, cautioning us away from embracing new media and urging us to consider the negative impact of the medium. Whether Carr's concerns are legitimate or unfounded, as the Internet increasingly pervades our lives and our writing, we must once again take a critical look at the long-term ramifications of our evolving media. So much is unknown; we can do little more than make educated guesses at this point. An overview of some of our current digital composition practices might help us better understand the future posterity of our students' and our own digital texts. This analysis of our current digital storage practices will evidence that digital memory is by no means a sure thing.

2. Digital Texts in Practice: A Look Backwards

As we take a glance into the virtual rearview mirror of digital texts it is immediately apparent that things are not as stable as many scholars suggest. A number of issues, both technical and otherwise, have increasingly begun to plague digital texts. Of these issues, three stand out as particularly pervasive and problematic for online composers. First, these texts face issues of technical incompatibility and obsolescence; the danger that one's work will one day be inaccessible due to technology updates and progress. Second, digital texts are at times confronted with issues of insecurity and deletion; the less common but equally real concern that one's digital work will be distorted, censored, or even removed by outside sources. And, third, digital texts are increasingly plagued by issues of obscurity and oblivion due to the constant accumulation of Internet content. Of these three issues, some are now common scholarly fare while others are a bit less central to the digital composition conversation. However, each of these issues is problematic for composition instructors leading students into the world of digital composing.

2.1. Incompatibility and Obsolescence

The most oft discussed of these three issues is the technical incompatibilities inherent in our ever-evolving technologies. Though the Internet is still less than thirty years old (and most digital texts far younger than that), many online texts are already facing the deleterious effects of the Web. What has been hearkened by many scholars as the end of "forgetting" is already evidencing signs of digital atrophy through issues of incompatibility, inaccessibility, and

obsolescence. And some scholars have suggested that these issues may become increasingly problematic as technology continues to change and evolve at an ever-increasing rate. Virginia Kuhn, David Johnson, and Dave Lopez (2010), authors of "Speaking with Students: Profiles in Digital Pedagogy," have chronicled the successes and struggles of a group of students as they navigate the complexities of digital composing. Speaking from their experience with this project, Kuhn, Johnson, and Lopez urge caution to digital scholars, "With no standards for maintenance, old applications will not run in just a few short years, making archiving whole projects increasingly untenable." Here, Kuhn, Johnson, and Lopez have illuminated an ever more pressing issue confronting scholars as well as the general public. How do we ensure that our digital texts carry on?

Technologies are evolving and advancing at an ever-increasing rate, leaving current hardware and software obsolete in a matter of years or even months. While this bodes well for future digital texts, which will undoubtedly have capabilities unimaginable today, this ever-increasing rate of progress also comes with a caveat; namely, that current digital texts may soon become obsolete, incompatible, inaccessible, or just plain outdated. It could be argued that digital archiving is the most practical solution to issues of technological incompatibility. Kuhn, Johnson, and Lopez have problematized this strategy, noting, "Storing numerous file types in an online archive requires conversion into some uniform format which will limit functionality," effectively negating the rhetorical impact of the original composition. In fact, many digital texts are already suffering the ill effects of technological advancement. Indeed, it would seem as though digital texts face a rocky path ahead, whether they are continually updated, archived, or simply left to become obsolete.

Already we can see evidence of attrition and decay in early digital scholarly texts, even those created and managed with posterity in mind. For example, *Kairos*, an academic journal focusing on the intersections between composition, pedagogy, and technology, is published solely online and has been since its first issue in 1996. Over the years, *Kairos* creators and editors have been vigilant in their efforts to keep the journal up-to-date and functioning in the face of technological advancements. Despite these efforts, many early *Kairos* articles are beginning to show signs of growing obsolescence, to varying degrees.

One of the most prevalent technical issues throughout these early articles is the breakdown of hyperlinks embedded within articles. For example, Paul Johnson (1996) offers a discussion of online writing labs (OWLs) in his article, "Writing Spaces: Technoprovocateurs and OWLs in the Late Age of Print," an article that appeared in *Kairos* 1.1, the initial offering from this digital journal. Unfortunately, of the 31 hyperlinks embedded in this single article, a mere one of them is still active.[1] Instead, readers are confronted with an array of error messages. Though Johnson's message, composed in text, still exists in its entirety on the *Kairos* site, the context of this message, originally illustrated and conveyed through what we might assume to be various OWLs and other scholarly discussion of OWLs, is all but lost. And Johnson's article, peppered throughout with broken hyperlinks, is the norm rather than the exception within early *Kairos* articles. Unfortunately, many articles have sustained far worse damages in the battle of obsolescence. For example, Leslie D. Harris (1996) offers a discussion of the pedagogical uses of MOOs in her article, "Writing Spaces: Using MOOs to Teach Composition and Literature." Harris' article, sequenced out onto multiple webpages, has seen significant deterioration. After the third page of text, readers are confronted with a digital dead end in the form of the ubiquitous error message, effectively deleting the conclusion from Harris' article. (See Figure 1.) Because of these defunct links, reading and understanding these articles is increasingly difficult and much of the strain is transferred to the reader to make sense of these missing connections.

These early issues of *Kairos* evidence their own set of technical downfalls while even more recent *Kairos* articles have fallen prey to obsolescence in their own ways. Articles such as Anne Frances Wysocki's (2002) "A Bookling Monument" and Madeleine Sorapure's (2006) "Five Principles of New Media: Or, Playing Lev Manovich," for example, require plug-ins such as Macromedia Shockwave Player or Flash Player in order to be viewed. Though these plug-ins aren't entirely obsolete, they can be clunky, buggy, and time-intensive to download and update. Note the up-front warning regarding Shockwave's frequent errors and significant download time on the landing page of Wysocki's article. (See Figure 2.) Even the most cutting-edge software will eventually be yesterday's news, and the digital lifespan is growing ever shorter. For readers today, the very essence of many of these *Kairos* articles is now all but lost. It is difficult to believe the arguments for permanence when we can easily find examples of online writing, even scholarly journal articles, that are already being forgotten or irretrievably lost.

[1] Notably, the single active hyperlink remaining in Johnson's article links to the well-known Purdue OWL.

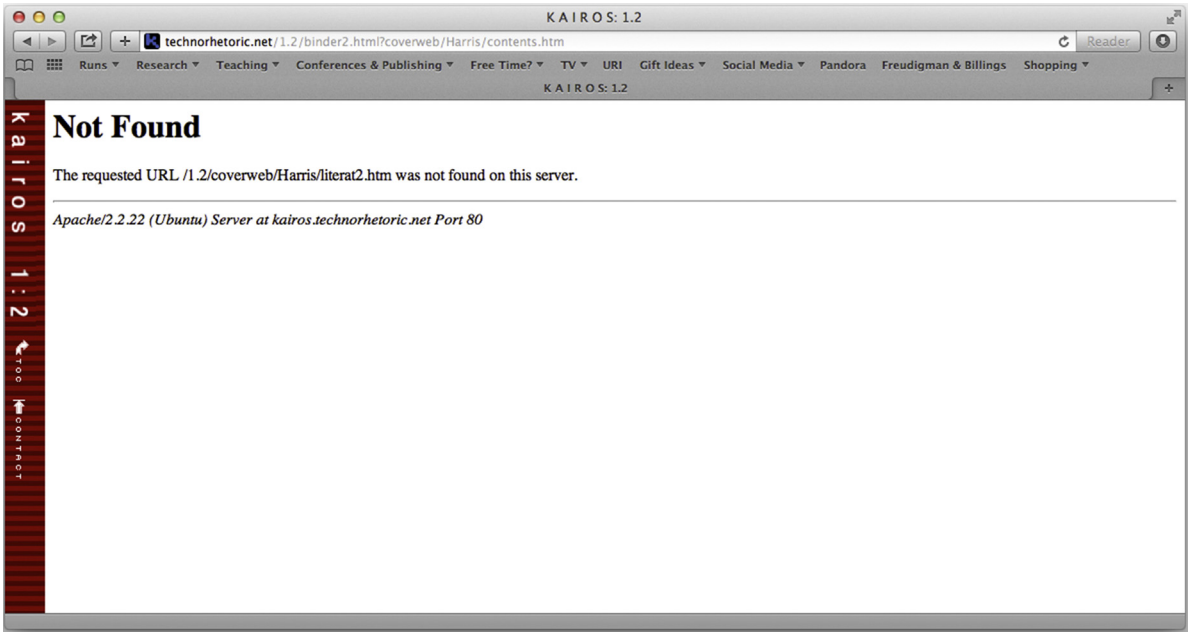

Figure 1.

If these carefully archived articles are experiencing the deleterious effects of obsolescence, what can be expected of student work? Admittedly, traditional student texts are susceptible to their own unique downfalls (loss, trash, a spilled drink or dropped food, the dog, spontaneous combustion, etc.). Yet if a student carefully and consciously files a document away for later reference, it will be right there where she left it. Unfortunately, digital texts are not quite so secure. A digital text, similarly left for later reference online, could be susceptible to any number of intervening technical issues in the meantime. When the student returns weeks, months, years, or decades later, she must be prepared

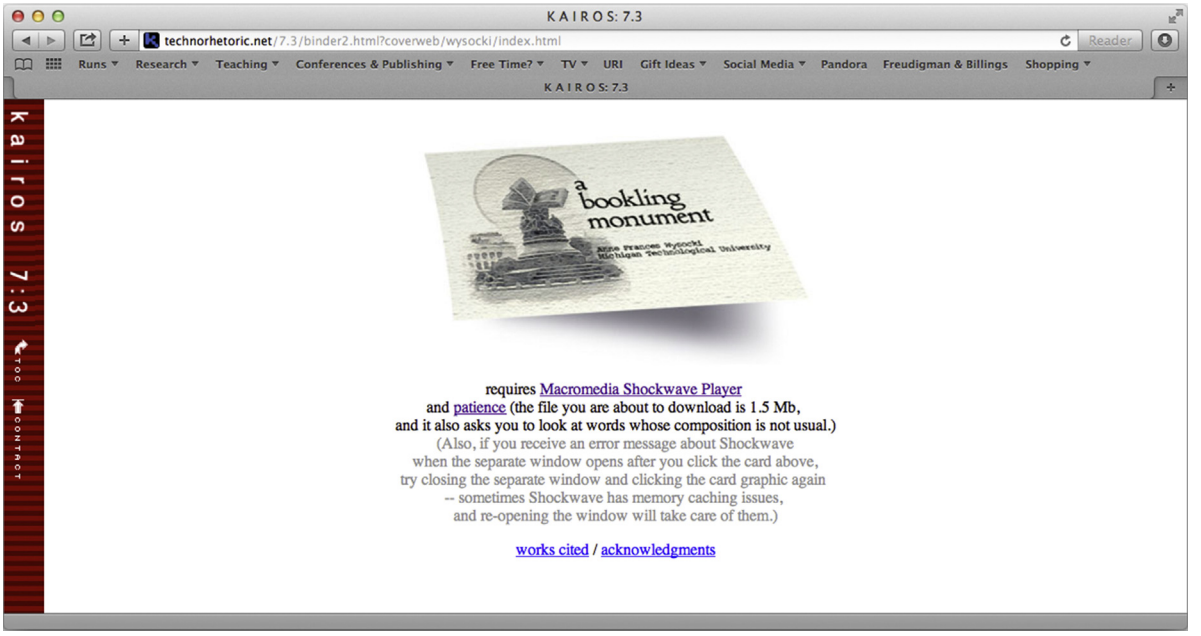

Figure 2.

to find that text digitally decomposing or even entirely gone. Without continual maintenance and technological prowess, one can only watch and wait as long hours of work slowly break down or become outright obsolete.

In multiple courses now, I've encouraged my students to try their hands at blogging through the use of individual writing blogs. Many scholars have documented their use of blogs, both for scholarly and pedagogical purposes. Specifically, several scholars have studied the way blogs create a space for heteroglossia and voices that might otherwise not be heard, often giving students authority in ways other media cannot (Barton, 2005; Tougaw, 2009; Frost, 2011). Others have focused on student responses to and interpretations of blogging (Liew, 2010; Zhang, 2010). Abby M. Dubisar and Jason Palmeri (2010) have investigated the use of student blogs for politically focused digital texts. And Justin Elizabeth Clark (2010) has explored the utility of combining blogs with other digital media within the classroom. Scholars are clearly embracing and harnessing the pedagogical potential of blogs, and with good reason. Blogs are engaging students in new and inviting ways.

Within my own teaching, student blogs have served at times as reading [b]logs for students to discuss their reactions and analyses of various class texts. And, at other times, student blogs have functioned as enthusiast blogs, allowing students to connect with like-minded individuals over a shared interest within the real-world rhetorical situation that is the web. These experiments have had their successes and their disappointments but, as each semester closes, I can't help but wonder about the future of my students' digital texts. Many (if not most) of these students will never look at their blogs again, allowing them to slowly become outdated and, eventually, defunct, much like the early *Kairos* articles mentioned above. For many of their blogs, this process will begin with inoperable links. Then, multimedia elements incorporated into the blog posts will become non-operational. Without student effort to keep these blog projects up-to-date, these digital texts will become a mere shell of what they once were. Eventual obsolescence becomes a question of when, not if.

Karl Stolley (2008) has offered his own solution to the problem of obsolescence in his article, "The Lo-Fi Manifesto." Here, Stolley has offered four principles of digital composing: it should be lossless, open, flexible, and in(ter)dependent. He advocates for a move away from commercial software in favor of open formats that will stand the test of time. Stolley's approach certainly circumvents many issues of obsolescence; however, it also sacrifices some of the most dynamic, cutting-edge features of digital compositions. And though it is a workable solution to the issue of obsolescence Stolley's lo-fi approach doesn't account for additional concerns of insecurity and obscurity.

2.2. *Insecurity and Deletion*

Issues of obsolescence aren't the only threat here. Some digitally savvy students today are also facing issues of insecurity as they attempt to compose digital texts in innovative and unconventional ways. I recently spoke with a student who was confronted with threats of deletion as he composed a new and fairly revolutionary creative writing project, a narrative with various characters that inhabited and interacted within and through multiple social networking sites and applications. Facebook quickly flagged the student's project and site administrators promptly threatened to remove his project in its entirety. In the face of such threats, the student was left with few options. The very nature of social networking sites actively discourages saving, archiving, or otherwise safeguarding the integrity of one's work into the future. Yes, these sites do enable us to look back through our past (and the pictures and posts there have indeed haunted many, as discussed above). Notably, though, these capabilities are available to us at the discretion of the site. The site, not us, dictates access. Past data, files, images, audio, and videos are secure as long as social networking sites determine they should be. Though the student above was ultimately able to save his project, he did so not through the approval of Facebook but, rather, through exploiting a loophole in the site's identity verification process. Had he not had the skill to locate such a loophole, his project would now be gone.

As the case above illustrates, our digitally archived material, including vast amounts of personally composed digital text, is evanescent. It is liable to disappear from our grasp in the blink of an eye or, more aptly, with the click of a mouse. For the student discussed above to attempt to save or archive his project would require a painstaking process of screenshots that would never fully capture the true multimodal, boundary-crossing, and interactive nature of his work, only the framework of the project. While these issues of deletion are far less common than issues of simple obsolescence, they are no less worrisome. The project discussed above was almost deleted not because it was inappropriate, incendiary, or hateful. It was almost deleted solely because it did not look like anything currently being done on the web. The tendency to reject or eschew something because it is new or different or groundbreaking is worrisome to say the least. This kind of gatekeeping has been the trademark of centrally controlled media outlets like

print, television, and radio. The Internet, in contrast to these more traditional media outlets, is often hailed as the most democratic medium; however, censorship is still happening every day.

2.3. Obscurity and Oblivion

Finally, the subtlest and most easily ignored of technical issues, problems of obscurity. At first, this might seem a silly concern. After all, what is academic writing if not obscure? Unfortunately, the issue is a bit more problematic than that. The sheer volume of content on the Internet is now at an unfathomable level and increasing exponentially every day**.** Recent estimates have calculated the mass of the Internet to contain approximately 2.13 billion web pages (de Kunder, 2014). Within this immense expanse of web content, it is becoming increasingly difficult (if not impossible) to stake one's virtual territory and even more impossible to retain a strong grasp on it over time. As the amount of content increases, one individual's digital contribution can easily and quickly seep into the crevices of the web, hidden by content that is more current, more attractive and more technologically advanced. In the face of this technological sinkhole, one's work is liable to become all but invisible to anyone except those who already know it is there. Mayer-Schönberger has argued, "once one has shared information, one has essentially lost control over it" (p. 85). This argument assumes that others have located and viewed one's work; often, this is simply not the case.

Recently, many instructors have attempted to push the boundaries of traditional classroom discourse by having students engage in Twitter-based conversations. Though less studied and theorized than student blogging, composition instructors have increasingly begun discussing their experiences with social networking in the classroom. Many of these instructors have advocated for the pedagogical use of social networking sites, while recognizing the difficulties associated with such media (Vie, 2008; Maranto & Barton, 2010; Davis & Marsh, 2012). Others have discussed Twitter, specifically, as a potential resource (in a variety of ways) for the composition classroom (Kirtley, 2012; Mueller, 2009). Though some instructors are tentatively venturing into the Twitter universe, there remains much research and analysis to be done on this emergent and dynamic medium.

Recently, I incorporated Twitter into my own classroom. Over the course of the semester, each student created a course-specific Twitter handle and responded to questions and comments posed both by myself as well as their fellow students. These tweets typically related to the current course reading, course management-related issues, and even outside content students found relevant to our conversations. These brief digital student texts were designed with the goal of engaging real readers, an aim often forgotten or ignored in composing traditional course texts. And their tweets have engaged readers. . .all 33 of their classmates and myself to be exact. In fact, it is more than likely that nobody outside our classroom community ever stumbled across our Twitter conversations throughout the course of the semester. And, after the semester passed, those texts slipped away into the ether, forgotten and deserted. The inquiry and scholarly engagement evident in those tweets has seeped into the deep recesses of Twitter, just like so many before them. Admittedly, those messages are still out there, waiting for someone to dig deep enough through the archives (available at twitter.com or, notably, the Library of Congress) to discover them; however, as time passes these tweets become ever more obscure.

Sites such as Twitter are simply not designed with future access in mind. In this sense, Twitter is indicative of a larger issue of obscurity that pervades the web. The student blogs mentioned above will undoubtedly suffer the same fate as these ephemeral tweets. Although their blogs were frequented by a group of 33 students and myself throughout the course of the semester, time and disuse will sweep them into the dark corners of the web. Yes, those who know of these student blogs can find and access them; but for others they might as well be non-existent. A Google search for "student writing blog" turns up a mind-boggling 195,000,000 results (a number that rose and fell by more than 80,000,000 just between various drafts of this article). The odds of locating one of my students' blogs in that mass of results makes locating the metaphorical needle in the haystack seem like child's play. This trend of overabundance is becoming increasingly common. Ryan Skinnell (2010), author of "Circuitry in Motion: Rhetoric(al) Moves in YouTube's Archive," has similarly noted YouTube's staggering speed of expansion, "every minute, 20 hours of video is uploaded to YouTube." At this pace, earning just one view is now quite an accomplishment. The time, energy, and technical prowess required to garner an audience within one of these online environments is simply becoming more than many are capable of tackling, both students and academics alike.

Some new applications are attempting to acknowledge and resolve these issues of obscurity within online texts. Storify, for example, allows users to assemble web content, specifically from social networking sites such as Twitter and Facebook, along with their own text to "build a narrative and give context to your readers" (Storify). These narratives

can then be embedded into other social networking sites and across the web. In effect, Storify enables readers to curate and highlight content that might otherwise be overlooked. However, like other sites and resources, Storify is subject to its own issues of obscurity. Storify projects are displayed on the homepage in three categories: "Featured users," "Featured stories," or "Latest stories from featured users." Unfortunately, these "featured users" are dominated by corporations, organizations, and journalists, groups and individuals who already typically have their voices heard via numerous other media channels. Yes, students and instructors could use the Storify resource to create narratives and share them on the Web, but how long until these stories are also lost to oblivion?

According to Mayer-Schönberger, "Digital information connected to the global network suddenly becomes valuable, while information that is not connected is no different from information that has simply been forgotten" (p. 81). I would argue that Mayer-Schönberger is mistaken on this point. As evidenced by the three issues discussed above, digital information online does not necessarily become suddenly "valuable." In fact, much online content garners few readers (if any) and eventually disappears as digital composers become bored, exhausted, or discouraged by the lack of attention and interaction. And even the few who do enjoy a degree of online fame are liable to ultimately lose their work due to technical incompatibility or even deletion. The assumption that digital work is immediately and inherently "valuable" ignores a number of very real and present threats.

3. Reassessing Goals in the Digital Age

These issues of obsolescence and evanescence leave us with an initial question: how to ensure future viability in digital texts? In a world that is increasingly making the move to the realm of the digital, how does one protect his or her intellectual work? Perhaps the very realization that digital texts are not immune to issues of obsolescence, insecurity, or obscurity is an important step. Amongst and against rampant myths of permanence, it is absolutely vital that we note the inherent flaws and fallibilities of digital compositions. As they say, the first step is admitting that you have a problem. We officially have a problem. We are faced with a choice. We may continue to venture into the realm of the digital, cognizant of the fact that our students' texts may one day (perhaps in the very near future) become inaccessible and/or outdated. Or, we may choose to carry on in the safe space of the print tradition, sticking to our guns. . .or, in this case, our No. 2 pencils and our spiral bound notebooks.

It would seem, at least according to Cynthia Selfe (1999) in her CCCC address titled "Technology and Literacy: A Story About the Perils of Not Paying Attention," that there really isn't an option, "*As composition teachers, deciding whether or not to use technology in our classes is simply not the point—we have to pay attention to technology.* When we fail to do so, we share in the responsibility for sustaining and reproducing an unfair system that. . enacts social violence and ensures continuing illiteracy under the aegis of education" (emphasis original, p. 415). Selfe spoke these words well over a decade ago, yet they hold true today more than ever. According to Selfe, we *must* tech up.

With this assertion that we must go digital or bust, we are confronted with a barrage of problems and questions. How can we ensure permanence in our digital texts? Must we save everything in multiple formats and multiple locations? Eschew emerging technologies in favor of Stolley's "Lo-Fi" approach? What about social media and other mediums that discourage personal archiving? Must we painstakingly screenshot every page, post, and interaction? What is lost in the transition from dynamic social media site to static screenshot image? Can we do anything to remedy this loss? The questions are seemingly endless and unanswerable, leading many to become discouraged at the prospect of preserving their digital media compositions.

But maybe such questions aren't necessarily the best way to approach this issue. I would like to backtrack and propose an alternative question about longevity in the digital realm: *is it desirable?* Current media trends seem to suggest that the answer falls in the realm of "not particularly" and "who cares?" Our academic tendencies urge us to save, archive, and painstakingly label all our past work for purposes of hiring, tenure, promotion, funding, and much more; however, this scholarly obsession with longevity is perhaps more atypical than we imagine. For our students, longevity is all but a non-issue.

Students today are arguably producing as much (if not more) content as they ever have. In their daily lives, students are actively composing within myriad digital venues. They are texting, tweeting, blogging, commenting, and, what's more, they are doing so constantly. In essence, the digital realm has shifted the focus from a preoccupation with longevity to a passion for abundance. Texts are being produced quickly, frequently, and, more importantly, these composition practices are becoming habit. When digital composers are consistently producing texts for the digital realm, who can be bothered to consider the long-term lifespan of a single text? It would seem as though the digital age has fostered

a new attitude towards composition; the text is now viewed less as eternal and increasingly as ephemera. While it is perhaps our first instinct to push these ideas away, clinging to more traditional attitudes toward the text, I propose that there is a silver lining to this new "ephemeral attitude." When the pressure of longevity is removed, we are able to focus more intensely and critically on a text's reception in the current moment. When all we have is "right now," we free ourselves to dive deeper into the current rhetorical situation, to tailor our texts in real time. In essence, we allow our students (and ourselves) to embrace a more *kairotic* approach to writing.

There are perhaps as many definitions of *kairos* as there are rhetorical scholars discussing the term. At the most basic level, Janice Lauer (2004) has defined *kairos* as "the right moment; the right place" (7). Many others have elaborated on this idea in ways that are both eloquent and beautiful; for example, Mario Untersteiner has described *kairos* as "an instant in which the intimate connection between things is realized" (Lauer 14) and James Kinneavy has noted that *kairos* brings "timeless ideas into time" (Lauer 88). Despite the copious definitions of the term, many of our ancient predecessors did find common ground in asserting the importance of *kairos*, arguing that the ability to produce relevant and timely rhetoric at the perfect moment was the mark of a great orator. The concept of *kairos* is evident throughout the work of such diverse rhetoricians as Aristotle, Plato, and, perhaps most centrally, the Sophists.

Susan Jarratt (1991), author of *Rereading the Sophists*, takes care to emphasize the importance of timing and context for these early rhetoricians: "They understood that any discourse seeking to effect action or shape knowledge must take into account those differences [in place]. Not only was it essential to judge circumstances obtaining at the moment of an oration, its *kairos*, but even more essential was the orator/alien's understanding of the local *nomoi*: community-specific customs and laws" (11). Sophistic principles stressed that discourse is always contextually dependent and the ideal orator must be ever ready to respond to his (or, much later, her) rhetorical situation at a moment's notice. He must be prepared to discuss any number of topics using any number of rhetorical strategies depending on the *kairos* and *nomoi* of the situation. The print era, unfortunately, separated rhetoricians both physically and temporally from their context, their audience, their moment. It signaled the beginning of the decline of the orator and, with it, a shift away from truly *kairotic* rhetoric.

This loss of *kairos* is predicted in Plato's *Phaedrus.* As noted above, Plato's Socrates balks at the transition to print, not only because he is concerned about the implications of the changing media, but also because he believes print will compromise the rhetorician's ability to practice *kairos*. Patricia Bizzell and Bruce Herzberg (1990) reflect on this concept in their comprehensive anthology, *The Rhetorical Tradition*: "For Plato's Socrates, as for the Sophists, oral exchange is valuable because it responds flexibly to *kairos*, the immediate social situation in which solutions to philosophical problems must be proposed. Socrates deems such responsiveness impossible for a fixed, written text" (56). And, indeed, throughout the print era, technological obstacles such as production time and distribution often hindered composers' ability to create content that was truly timely and relevant. However, our technological affordances now enable us to avoid the printing process, distribution time, and editors that so often hindered truly *kairotic* rhetoric. Perhaps this shift to digital composition signals the reemergence of the rhetor—a digital rhetor, a rhetorician who must be prepared to respond to a given context and a given audience at a moment's notice. In a world that is changing quicker than ever, these composers must respond to the need for relevant and topical writing. . .done quickly.

Despite these recent shifts in composition practices, the principle of *kairos* is still largely absent from digital composition pedagogy. The rapid growth of digital composing, particularly as a tool within the composition classroom, urges us as composition instructors to reassess our pedagogical aims and, perhaps, reevaluate (or simply revive) some of our age-old rhetorical wisdom. What would *kairotic* composition look like in today's composition classroom? What kinds of products would be created? James Kinneavy sought to answer some of these questions in his 1986 article, "Kairos: A Neglected Concept in Classical Rhetoric." Here, Kinneavy has offered up a composition program centered on the concept of *kairos*. Kinneavy's *kairos*-centered pedagogy would focus specifically on understanding the writing context and its inherent value systems, how to use persuasive rhetoric, and, ultimately, how to locate real-life audiences for one's work. Kinneavy was certainly ahead of his time; his work pre-dated multimodal digital composing, social media composing, and even the most basic blogs and Internet chat rooms. In light of these advances, I would argue that Kinneavy's *kairos*-driven pedagogy is now more relevant than ever and begs to be given a second look.

Already I see my students trying to adopt these rhetorical principles, albeit largely unconsciously. They understand the subtle differences between the context of the blog versus Facebook versus our online course management system and they adapt their rhetoric to fit the value system of each venue. They know where to target specific messages and they understand the differing responses they'll likely receive from their audience. . .because they are used to having a

real-life audience; in fact, they expect it. Students today have largely grown up intuitively grasping at these principles and ideas as they began composing within unknown virtual spaces. But a pedagogy such as that Kinneavy proposes would make transparent all of these habits and practices, allowing them to channel these skills into conscious rhetorical knowledge applicable to any context.

What I'm calling for is not a pedagogy that rejects longevity in favor of *kairos* but, rather, a pedagogical approach to digital composition steeped in the concept of temporality, an approach that brings to the forefront issues of permanence and stability as well as ephemera and *kairos*. Such an approach should invite our students into this discussion, asking them some of these difficult questions: How does temporality alter the rhetorical situation? How do students perceive the longevity of various digital genres? How do composing practices change from one digital venue to the next? How can we best address issues of digital instability? Urging students to consider these questions of temporality (as well as countless others) serves as a starting point towards enacting a pedagogy of temporality, offering several generative points of interrogation through which students can discuss, reflect, and debate the various advantages and disadvantages of composing in the digital tradition. By asking them to become a part of this scholarly conversation through discussion and reflective writing students can begin to explore the questions above in a critical and exploratory way and, ultimately, begin to come to terms with the vulnerability of their own digital texts.

With this basic awareness of temporality under their belts, students can begin to investigate and analyze a variety of digital media to assess their differences in audience, reach, composing timeline, typical messages, and, perhaps most importantly, potential longevity (or lack thereof). Instructors might present students with examples of digital messages such as the Kony 2012 YouTube video that redefined what it meant to "go viral" or the widely retweeted victory tweet from the 2012 Obama presidential campaign. Or students might even search out their own "*kairotic* moments" for further investigation. Students should explore the rise and, perhaps more importantly, the fall of each message, using online resources such as Google Trends to assess variables such as reach, audience, related conversations, and longevity. Ultimately, students should be able to compose an analysis exploring *why* the message was effective and how the author used the medium to their advantage. Through these real life examples, students can begin to understand how the medium shapes the message. The goal is not to hierarchize one medium over another but to show students how to make appropriate rhetorical choices depending on their specific purpose, audience, and message, to encourage students to think critically about the temporality of their messages.

Once students have analyzed the temporality of various rhetorical messages, they can then begin to turn all of this discussion and analysis into actual hands-on practice. Students should begin this foray into *kairotic* composing by actively crafting their own message in response to a current "*kairotic* moment." This "moment" might be a topical news story, a viral blog post, or even a video. A public writing course might ask students to focus in specifically on *kairotic* moments making waves in one of their own communities. A business or technical writing course, alternately, might ask students to situate their rhetoric within a relevant professional conversation. As they contribute to this moment of *kairos*, students should consider their rhetorical choices (audience, venue, message, tone, purpose, etc.) and be able to justify their decisions. Students should emerge from the assignment with a strong grasp of the future longevity of their message and how it might have fared differently in other media channels.

Through this intense focus on temporality and *kairos*, students should become capable and confident digital rhetors, able to target an appropriate audience for their message, compose it in a timely manner to embrace a specific *kairotic* moment, and select the best possible digital venue based on reach, longevity, and purpose. In essence, students should move from passive users to empowered and informed "digital rhetors" who are capable of using various media to their benefit by choosing the right medium for the rhetorical situation. Students who are capable of writing *kairotically* within the bounds of the digital tradition will be able to navigate the complex and nuanced media channels where so much of today's composition takes place. Though a pedagogy of temporality cannot solve our current issues of infallibility, it can certainly provide an important first step towards more responsible and informed digital composition practices.

Despite its fallibility, digital composition undoubtedly has a vital role in the composition classroom; however, to incorporate the digital into our pedagogy responsibly and sustainably, we must situate these practices within the appropriate conversations not *for* our students, but *with them*. It's time we bust the myth of permanence in digital texts. We, as composition scholars, cannot (and perhaps should not) attempt to solve the issue of longevity alone, but with our students we can begin to broaden the conversation and strive towards workable solutions. We are still far from understanding all of the long-term ramifications of digital composing, but if we can teach our students to be savvy digital rhetors, we prepare them for whatever the future of digital composing might hold.

Katelyn Burton is an English PhD candidate specializing in Rhetoric & Composition at the University of Rhode Island. Her research interests include digital pedagogy, multimodal composition, and digital identity creation and shaping within online environments. Her most recent work investigates the connection between food discourse and identity, specifically within digital environments.

References

Barton, Matthew. (2005). The future of rational-critical debate in online public spheres. *Computers and Composition*, *22*(2), 177–190.
Bizzell, Patricia, & Bruce Herzberg. (1990). *The rhetorical tradition: Readings from classical times to the present*. Boston: Bedford.
Brooke, Collin. (2000). Forgetting to be (post)human: Media and memory in a kairotic age. *JAC*, *20*(4), 775–795.
Carr, Nicholas. (2010). *The shallows: What the Internet is doing to our brains*. New York, NY: Norton.
Clark, Justin Elizabeth. (2010). The digital imperative: Making the case for a 21st-century pedagogy. *Computers and Composition*, *27*(1), 27–35.
Davis, Octavia, & Marsh, Bill. (2012). Networking, storytelling and knowledge production in first-year writing. *Computers and Composition*. *29*(2), 175–184.
de Kunder, Maurice (2014, June 12). *The size of the world wide web*. Retrieved from http://www.worldwidewebsize.com.
Dubisar, Abby, & Jason Palmeri. (2010). Palin/pathos/Peter Griffin: Political video remix and composition pedagogy. *Computers and Composition*, *27*(2), 77–93.
Frost, Erin. (2011). Why teachers must learn: Student innovation as a driving factor in the future of the web. *Computers and Composition*, *28*(4), 269–275.
Harris, Leslie. (1996). Writing spaces: Using MOOs to teach composition and literature. *Kairos*, *1*(2). Retreived from http://kairos.technorhetoric.net/1.2/coverweb/Harris/contents.htm.
Susan Jarratt. (1991). *Rereading the Sophists: Classical rhetoric reconfigured*. Carbondale, IL: Southern Illinois UP.
Johnson, Paul. (1996). Writing spaces: Technoprovocateurs and OWLs in the late age of print. *Kairos*, *1*(1). Retrieved from http://kairos.technorhetoric.net/1.1/binder2.html?owls/johnson.html.
Kinneavy, James. (1986). Kairos: A neglected concept in classical rhetoric. In Jean Dietz Moss (Ed.), *Rhetoric and praxis: The contribution of classical rhetoric to practical reasoning*. Washington, DC: Catholic UP.
Kirtley, Susan. (2012). Rendering technology visible: The technological literacy narrative. *Computers and Composition*, *29*(3), 191–204.
Kuhn, Virginia, Johnson, David, & Lopez, Dave. (2010). Speaking with students: Profiles in digital pedagogy. *Kairos*, *14*(2). Retrieved from http://kairos.technorhetoric.net/14.2/interviews/kuhn/index.html.
Lauer, Janice. (2004). *Invention in rhetoric and composition*. West Lafayette, IN: Parlor Press.
Liew, Warren Mark. (2010). Digital hidden transcripts: Exploring student resistance in blogs. *Computers and Composition*, *27*(4), 304–314.
Manovich, Lev. (2002). *The language of new media*. Cambridge, MA: MIT Press.
Maranto, Gina, & Barton, Matt. (2010). Paradox and promise: MySpace, Facebook, and the sociopolitics of social networking in the writing classroom. *Computers and Composition*, *27*(1), 36–47.
Mayer-Schönberger, Viktor. (2009). *Delete: The virtue of forgetting in the digital age*. Princeton, NJ: Princeton UP.
Mueller, Derek. (2009). Digital underlife in the networked writing classroom. *Computers and Composition*, *26*(4), 240–250.
Plato (2008). *Phaedrus* [Project Gutenberg version]. (Benjamin Jowett, Trans.). Retrieved from Apple iTunes. (Original work published n.d.).
Pruchnic, Jeff, & Lacey, Kim. (2001). The future of forgetting: Rhetoric, memory, affect. *Rhetoric Society Quarterly*, *41*(4), 1–23.
Selfe, Cynthia. (1999). Technology and literacy: A story about the perils of not paying attention. *College Composition and Communication*, *50*(3), 411–436.
Skinnell, Ryan. (2010). Circuitry in motion: Rhetoric(al) moves in YouTube's archive. *Enculturation*, 8. Retrieved from http://enculturation.gmu.edu/circuitry-in-motion.
Stolley, Karl. (2008). The lo-fi manifesto. *Kairos*, *12*(3). Retrieved from http://kairos.technorhetoric.net/12.3/topoi/stolley/.
Sorapure, Madeleine. (2006). Five principles of new media: Or, playing Lev Manovich. *Kairos*, *10*(2). Retrieved from http://kairos.technorhetoric.net/10.2/binder2.html?coverweb/sorapure/index.html.
Swadley, Charles. (2008). *Remembering memory: Reconfiguring the fourth canon of classical rhetoric*. Norman, OK: U of Oklahoma P.
Tougaw, Jason. (2009). Dream bloggers invent the university. *Computers and Composition*, *26*(4), 251–268.
Vie, Stephanie. (2008). Digital divide 2.0: 'Generation M' and online social networking sites in the composition classroom. *Computers and Composition*, *25*(1), 9–23.
Wysocki, Anne Frances. (2002). A bookling monument. *Kairos*, *7*(3). Retrieved from http://kairos.technorhetoric.net/7.3/binder2.html?coverweb/wysocki/index.html.
Zhang, Wei. (2010). Blogging for doing English digital: Student evaluations. *Computers and Composition*, *27*(4), 266–283.