After Digital Storytelling: Video Composing in the New Media Age

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Abstract

This paper considers the composing processes for novice moviemakers and the disciplinary, pedagogical, and epistemological ramifications of these by using two student case studies. The current model of video composing as a sequential series of temporally discrete steps, made famous by the Center for Digital Storytelling, is predicated on the logic of old media and, thus, may no longer be sufficient to account for the new media composing processes that emerge with new media interfaces. In place of a linear and sequential process of video composing, we suggest expanding the predominant model to account for a simultaneous, multiply-recursive process that involves the semiotic channels of image, sound, and word.

Keywords: Digital video; Composing process; Multimodal; Digital Storytelling; Personal essay filmmaking

1. Introduction

Researchers in a variety of fields including composition, education, media studies, and communication have begun to assess and document the ways in which emerging technologies create new possibilities for textual production. This body of work signals the significance of multiliteracies (Kress, 2003; Cope & Kalantzis, 2000), the necessity of composing across a range of modalities (Selfe, 1999; Takayoshi & Selfe, 2007; George, 2002; Yancey, 2004; Rice, 2007), the pedagogical possibilities inherent in multimodal composition (Wysocki, 2004; Johnson-Eilola, 2004; Shipka, 2005), as well as the implications for social justice (Lankshear & Knobel, 2003; Jenkins, 2006). All of these are guided by the deepening realization that as our textual practices shift, so do traditional forms of thought and representation.

We are now subject to what Henry Jenkins (2006), one of the foremost media scholars, calls a "convergence culture": a society caught up in a whirlwind of change as old and new media renegotiate their functions. As Jenkins writes: "Media convergence is more than simply a technological shift. Convergence alters the relationship between existing technologies, industries, markets, genres, and audiences. Convergence alters the logic by which media industries operate and by which media consumers process news and entertainment" (pp. 15-16). While Jenkins is most attentive to media markets and participants, he still highlights the "cultural logic" that informs the practices we undertake daily, and without a second thought. Lev Manovich, a new media scholar grounded in film and computer studies, contends that the operations that have become "natural" to us in our everyday interactions with computers create new expectations that challenge the fundamental bases of our creative tendencies. According to Manovich (2001), "changes in media technologies are correlated with social change. If the logic of old media corresponded to the logic of an industrial mass society, the logic of new media fits the logic of the postindustrial society" (p. 41). In other words, the move from

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page to screen in our current information age is an epistemological shift that opens up new ways of reading, writing, representing and understanding that will, by necessity, be grounded in the ontological actions of the new media era.

Nowhere does this new media epistemology beckon more compellingly than in the arena of digital video, which may be the paradigmatic example of a multimodal text with the potential for wide-ranging cultural, aesthetic and social implications. After all, thousands now compose digital videos daily and millions more view them—practices made possible by the recent availability of video recording, editing, and broadcasting mechanisms designed and priced for amateurs. The ubiquity and mass dissemination of digital video makes it worthy of careful analysis from both a cultural and pedagogic point of view. Indeed, recent scholarship has begun to attend to the unique attributes of this medium by considering the pedagogical and rhetorical value of the "remix" (Dubisar & Palmeri, 2010), the rhetorical exchange engendered by YouTube's videos (Jackson & Wallin, 2009), and the new range of assignments that video makes possible (Wolff, 2010).

Given the expanding possibilities for video in both the culture and the classroom, it's curious that the primary pedagogical model for novice video production remains that of "digital storytelling"—a format not only based on industrial-age technology that predates our current technological capabilities, but one that is also deeply imbricated in the cultural logic of old media. Digital storytelling, made famous by the Center for Digital Storytelling (CDS) <http://www.storycenter.org>, provides educators with a simplified version of professional filmmaking represented as a seven-step formula that begins with writing, moves to filming, and finishes with editing. Such a streamlined and user-friendly template is clearly attractive, especially to teachers who may just be beginning to explore multimodal composing. So it is not surprising that "digital storytelling" has been offered as a pre-convention workshop at the Conference on College Composition and Communication in 2009, featured in a panel at the 2010 Computers and Writing Conference, made available as an NCTE "On Demand" Web Seminar (Kajder, 2009), and referenced in a number of recent articles (e.g., Clark, 2010; Ohler, 2006). It's clear that in the realm of literacy education "digital storytelling" has essentially become synonymous with video composing and video production. Yet as we shift from an industrial age to an information age, so too does the cultural logic that undergirds textual production and processes. The current model of digital video composing as a sequential series of temporally-discrete steps is predicated on the logic of old media and, thus, may no longer be sufficient to account for the new media composing processes that emerge with new media interfaces.

In this article we begin with a close look at the composing model developed and disseminated by the Center for Digital Storytelling (CDS). By doing so, we don't want to suggest that the CDS model never works—clearly it does, and has for many amateur composers for almost two decades. Rather, we're interested in the ways that the CDS process replicates old media logic, i.e., film,[1] and may unwittingly foreclose upon productive and important composing processes engendered by new media operations. We identify two specific processes—compositing and new recursivity—that we believe underpin novice digital video composition in the convergence/information age. To illustrate the particular benefits and challenges that these processes can produce, we describe the experiences of two of our own students as they create their first digital videos in our personal essay filmmaking course, and examine the ways in which their specific composing problems exceed the boundaries of the most popular model of digital video composition: digital storytelling. Our purpose is twofold: first, we set out to make visible the important elements, pitfalls, and breakthroughs that lead to the revelation of new insights in the chaotic process of students' video composition. Unlike the clearly demarcated linearity and progressive steps in the predominant composing model, novice digital video composing, we contend, is neither predictably structured nor necessarily premised on the primacy of print. Second, then, we suggest that composing with digital video requires new skills and reference points that arise from the cultural logic of new media to guide production, particularly from those teachers dedicated to introducing multimodality in their classes. To observe the ways that novices construct videos, we argue, is to understand more fully how first-time moviemakers use newly available technologies to understand and represent themselves and the world around them. We argue that the emergence of these new skills, over and against the current formula of

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[1] Even as the dominant visual technology of the 20th century, film, or cinema, is characteristic of an industrial age, if not an earlier one. Manovich (2001) writes: "Behind even the most stylized cinematic images, we can discern the bluntness, sterility, and banality of early nineteenth-century photographs. No matter how complex its stylistic innovations, the cinema has found its base in these deposits of reality, these samples obtained by a methodical and prosaic process. Cinema emerged out of the same impulse that engendered naturalism, court stenography, and wax museums." (pp. 294-295).

write/film/edit, points to the importance of expanding the existing process model and reigning methodology of digital video composition.

2. The rise of digital storytelling

For the past sixteen years, the preeminent model for amateur digital video composition has been the Center for Digital Storytelling (CDS) <http://www.storycenter.org>. Through a carefully orchestrated series of workshops, the CDS provides step-by-step guidance in digital video production including script writing, image selection, and video editing. With an emphasis on the power of personal stories, educators and activists alike have embraced the significant pedagogical potential of digital video presented by the CDS. Long-running and successful nonprofit digital production studios such as The Echo Park Film Center <http://www.echoparkfilmcenter.org/>, the American Film Institute "Film Your Issue" for k-12 students <http://whatsyourissue.tv/>, and the well-known D.U.S.T.Y. program (Digital Underground Storytelling for Youth) based in Oakland <http://www.OaklandDusty.org> all speak to the power of the CDS model. As community centers that often focus on urban youth, such programs are crucial for increasing access to the full spectrum of communicative resources available in multimodal production.

The early model of video composition, taught by the CDS and described in detail in their widely-used official CDS "Cookbook," features a comprehensive outline of the seven principles of effective storytelling and is available on their Web site as a print edition for $20.00, or a free downloadable PDF file. Until their 2010 revision, however, the original version of the Cookbook described video composing as "sequential composing" (Lambert, 2006, p. 23) and presented it as a set of discrete steps: write/film/edit. Recently revised, the Cookbook has since eliminated this stage-model language in an important attempt to acknowledge both the expanded use and increased capacities of digital video in popular culture. And, yet, within the underlying principles of the CDS process, there largely remains the same sequence of steps: workshop participants first brainstorm their personal story, then write a script and storyboard, next select and add images (with a notable emphasis on photographs), and lastly learn software-editing programs such as Final Cut Express. Central then to the mission of the CDS is the creation of a streamlined, manageable, and replicable production process for creating a short digital video.

Without a doubt, the CDS model of digital video composing has emerged as a powerful and accessible model for novice video production. Our interest here is not to critique the laudable work of the CDS, but rather to consider the ways in which this sole model for digital composing is itself a product of a cultural logic premised in the texts, products, and processes of the old medium of film. As we shift into the information age where new media makes possible new forms of textual products, we will also need to imagine new composing processes that develop organically from the operations inherent in emerging new media.

From the point of view of composing with information age operations, the CDS model is limited in a few specific ways. Their method encourages participants to craft meaningful personal narratives through feedback in a "story circle" with compelling questions designed to probe the deeper meaning; however, the workshop model stresses the completion of one's "story" prior to engaging with any other media (Lambert, 2010, p. 14). Though the recently revised Cookbook places a new emphasis on the "journey" or "process" of creating one's story, the first step remains distinct: composers should first figure out the story and meaning prior to engaging with any of the modes. Such a lock-step formula of scripting/filming/editing is reminiscent of the early stage model of the writing process (prewrite/write/rewrite) set out by D. Gordon Rohman and Albert Wiecke that dominated composition textbooks and scholarship until the 1970s. Over thirty years ago scholars such as Janet Emig (1971), Nancy Sommers (1979), Sondra Perl (1979), and Linda Flower and John Hayes (1981) critiqued this narrow model of writing and made the case that writing was not a linear progressive path but a multiply recursive set of cognitive processes. The stage-model for writing was insufficient for the ways it identified "stages of the product and not the *operation of the process* [emphasis added]" (Sommers, p. 47). The deeper critique, however, was about how a singular model could take root and subsequently curtail further exploration of alternate paradigms. According to Sommers, part of the problem with "an artificial segmentation of the composing process" was that it "created perceptual boundaries for composition teachers and researchers" (p. 46). Thus, this early work in composition theory was important for the ways it interrogated prevailing models to better describe, understand, and teach the dynamic and complex processes of composing.

As we enter the shifting territory of 21st century textual production, we have perhaps once again arrived at a moment where there is one prevailing composing model: the CDS model. A stage-model account of digital composing, like

the early stage-model account of written composing, can unwittingly limit the rich semiotic resources of visual and aural modes to that of arrangement and assemblage, rather than recognizing (and accessing) their role in invention, discovery, and revision. In the CDS model, still images can be used as invention heuristics, but their most common role is to accompany and serve the written story. While the CDS does suggest four important ways that visuals can work (explicit, implicit, juxtaposition, metaphorical)—if the story always precedes their use, then they are always subservient to the pre-existing script. In her work on multimedia assessment, Madeline Sorapure (2006) describes the limitations of this kind of "mode-matching" between a print narrative and visual resources: "While some repetition across modes may be useful in focusing attention or highlighting key ideas, too much mode-matching diminishes the potential of multimedia composing by, in essence, leveling the modes so that they each express something more or less equivalent. Productive tension between modes here is at a minimum" (pp. 4-5). In short, a linear model that always begins with "write" and ends with "edit" presents composing as discrete and bounded, rather than as a synchronous, dynamic, and simultaneous act of composing with a variety of modes. Furthermore, this model of video composing can too easily neglect the meaning-making potential of images and sounds by reducing them to mere "translations" of a written script.

Linear progression and the lack of tension between and among modes are two significant byproducts of the digital storytelling model as it stands, but the primacy of the story in its written form is worthy of additional note in this pedagogical template. The prevailing model for composing video places writing as the originating process of the story and, thus, the primary mode, to which other semiotic channels become secondary and correspondent. The script not only inspires visual and aural translations of its content; it also solidifies "the story"—the foundational element in a CDS production. The story is first constructed primarily via writing and remains an impervious privileged top layer, free from the addition or influence of other modalities. Thus, even with the best intentions, our pedagogical vision for multimedia composing in the realm of digital video remains, in essence, print-centric.

The linear model espoused by the CDS may be problematic in its portrayal of composing as a predictable and tidy set of discrete processes with roots in print culture. It is not, however, surprising, given that their model is essentially a simplified version of professional filmmaking production taught at film schools. Unlike these institutions, however, the CDS encourages participants to work primarily with existing material such as family photographs, rather than create or capture new raw footage. Certainly in the days of expensive digital video cameras and limited digital storage capability, such a limit made sense. Now, however, with the proliferation of affordable digital video cameras, user-friendly video editing programs (available even on cell phones), and global distribution channels such as YouTube, working with moving images has never been easier or faster. The CDS model is an innovative and highly-successful model that makes use of the technologies available to consumers for the last twenty years—technologies that focus on the manipulation of the still image and sequential assemblage. Our new historical moment, however, enjoys a different cultural logic with its own attendant practices, possibilities, and processes grounded in the characteristics inherent to new media: variability, mutability, modularity (Manovich, 2001, p. 36). This fundamental media transformation means that in order to be responsive to the emerging literacies and expectations of our students, teachers need to reconsider not only the kinds of texts we teach, but also *how* we teach the new processes associated with new media texts.

3. New recursivity and compositing

A slate of recent scholarship sets out to describe the cognitive moves that new media composing both calls for and develops in students. Jeff Rice (2007), for instance, in his book *The Rhetoric of Cool: Composition Studies and New Media*, identifies a set of processes he characterizes as "cool"—a historical and colloquial term that characterizes the affordances of new media writing: "The rhetorical moves I identify as belonging to the rhetoric of cool are possible only because of digital culture; they challenge and disrupt print-oriented conventions and structural logic" (p. 21). In a similar vein, Alex Reid's (2007) *The Two Virtuals: New Media and Composition* closely investigates the specific shape of cognition and consciousness in the information age. In his introduction, he argues that "we must develop an understanding of how media technologies shape the material practices of composition, as well as the recursive relationship between the materiality of composing and the discursive communities and practices attached to those media technologies" (p. 13). Along with Manovich and Jenkins, these composition scholars locate new media at the epicenter of a cultural turn that demands close attention to new ways of making and doing. In the specific realm of digital video, Jason Ranker (2008) analyzes the multimedia composing processes

of fifth-graders during their creation of digital video documentaries. Ranker's interest is in observing how the various media overlap and interact via the editing software interface. Citing a new "composing synergy" (p. 225), Ranker's work sets the stage for teachers to reconceptualize existing descriptions of composing when it comes to digital video.

The work of scholars such as Rice, Reid, Manovich, and Ranker directly addresses the emergence of unique forms of production across a range of new media. Despite the variety of their fields of expertise, they reach the same important conclusion: our focus should not rest on the fact that new media tools shift traditional notions of text-based practices, but rather must encompass the realization that an important set of new processes intrinsically tied to new technologies has come to light. In short, their research calls us to recognize that to make new media is to enact new methods of composing that are specific to new forms.

Based on our observations of our own students at work, we contend that there are two key composing processes occurring in digital video production left unaddressed by a sequential linear model. The first process consists of a kind of cognitive wrestling: a variety of modes and their separate meanings must be prioritized, while simultaneously the interaction of these same modes in any given frame of video must also be addressed. Ranker (2008) documents, in detail, the earliest stages of this struggle for the students in his study, in which a new image or sound, when imported into the editing interface, inspired them to seek out additional associated pictures and music (p. 227). The students' motivations aren't entirely surprising, given their access to the computer program as a composing space. Deeply influenced by software for editing still images, video editing interfaces encourage the composer to "layer" disparate media objects. A number of tracks sit stacked on the screen, waiting for the composer to drag an image, a sound, or an effect atop another to create a synthetic whole. The user's impulse in the face of this design, Manovich (2001) explains, is to "composite": "Once all the elements are ready, they are composited together in a single object; that is, they are fitted together and adjusted in such a way that their separate identities become invisible. . .The result is a single seamless image, sound, space, or scene" (p. 136). Compositing, then, would refer to the process by which a novice filmmaker can skillfully incorporate mode-specific meanings to comprise a "single seamless" scene of rich, multivalent signification that suggests intrinsic relationships among the various elements—an aesthetic present in digital video genres as disparate as fan vids, political remixes, and blockbuster 3-D movies. The act of compositing rejects the one-to-one relationship in which a still image is matched to a corresponding word or idea, and at its best explores the potential metaphoric, metonymic, ironic and surreal relationships among the various channels to produce unexpected shifts in tone, theme, and emplotment. As opposed to an unquestioned primacy of the written text, the term "compositing" is useful to describe the new literacy of "layering" required by the standard operations in digital video composition: a careful assessment of the multiple competing modes of meaning-making, and the ways that they can be synthesized to create a specific, synchronous effect. Furthermore, the term compositing evokes a rich connection with alphabetic text (composition), but importantly, also signals the ways in which multimodal composing requires a different set of processes or "operations."

Compositing highlights the complexity of composing decisions that construct individual moments, but a parallel consideration is addressing the accretion and organization of composited frames and scenes across space and time. Researchers have used a number of terms to highlight this cognitive operation in an array of new media forms. Rice (2007) identifies "nonlinearity"—along with chora, juxtaposition, and imagery—as a fundamental rhetorical strategy made possible with emergent technologies (p. 8). Manovich (2001) invokes the image and technological history of the "loop" to describe the recursive and shifting quality of a new media composition in progress. Ranker (2008) also notes the nonlinear practice he witnessed in video composing, which he includes in his definition of "interactivity": "By interacting with, gaining new information for, and rewriting their video in this way, the boys became deeply engaged in changing and shaping their video text across time, based on the visual "feedback" they accessed by examining the emerging drafts of their video" (p. 227). Alternately, Bradley Dilger (2008) appropriates the term "iteration" to describe the shifting, but repeated processes of new media composing that he sees as "the analogue to 'writing process'" (p. 131).

"Nonlinearity," "looping," and "iteration" all speak to a characteristic inherent in composing with new media, one made both more necessary and more complex by its move across a variety of modes: the impulse to reconsider and revisit the ways that meaning has evolved over the course of the composition, and to accommodate those changes as the composer moves forward. As Dilger notes above, an attention to the equivalency, however slight, between our older print habits and our new convergence practices may help us to understand both the similarities and differences

between these meaning-making opportunities. With due deference to the host of terms that describe this process and highlight its importance as a new media literacy, we suggest the term "new recursivity" to describe this cognitive operation, precisely because it echoes composition studies' prior research into the written composing process by Emig, Sommers, Perl, and Flowers and Hayes. While new recursivity can be applied to composing in a variety of new media forms, it has specific implications in the realm of digital video composition. As a non-linear, cyclical practice that is innately linked to compositing, new recursivity underscores the ways that a stage model of the composing process is ill-equipped to represent the new paradigm of information-age meaning-making. As Dilger (2008) argues, "There's no need to restrict arrangement to hierarchical, linear forms, or to invent strategies for their domestication" (p. 129). As a key strategy for composing with digital video, new recursivity names the process by which composers circle back through the progression of composites to assess the video's themes, tone, and narrative direction—a process that requires working with all the modalities (alphabetic text, still/moving image, and sound) and escapes the tidy confines of a sequential model. Thus, new recursivity, while clearly invoking compositions studies' long history of documenting actual composing processes, is a process clearly attenuated to the cultural logic of new media production in general and video in particular.

New media composing consists of a complex set of subprocesses that require composers to think conceptually with layers, work in multiple modes, and revisit initial ideas and reshape them as they discover emerging meaning over the temporal trajectory of their video. Compositing and new recursivity are two terms that disrupt a print-centric model of video composing by acknowledging the invention and discovery potential of all of the modalities: alphabetic text, still and moving image, and sound. Further, they address the surprising epiphanies that can happen in the process of synthesizing modes. Reid (2007) describes the instability of meaning during new media composing thus: "Each additional graft both remarks the territory of the text and its peripheral traces and returns back upon the previous text to rewrite that as well. The montage may appear seamless as a result of a careful editorial, rhetorical process, but one can still uncover the edges between the grafts" (p. 135). While Reid is most concerned with the way that writers "rip" and recombine text, his description speaks to the conundrums that face amateur video composers as well; each new scene, no matter how carefully designed, contains the elements for new thematic, imagistic, or narrative possibilities that must be accounted for. The "story" or the meaning of the narrative needs to remain open to revision and redirection as the composer engages multiple modalities. The current linear model of video composing espoused by the CDS describes three discrete operations—write, film, edit—that unfold in a chronological order of operations. Such a model assumes that the act of discovery is akin to an archeological process of unearthing pre-existing meaning and that this meaning is "found" prior to engaging multiple modalities. Yet as Flowers and Hayes (1981) demonstrated over twenty years ago, discovery comes from problem-solving and, thus, is "an elaborate construction which the writer creates in the act of composing" (p. 65). A similar premise is at work when it comes to digital composing. When composers use multiple modes as *tools for thinking* rather than just to visually illustrate a completed script, they actually generate new meaning. Creation of a digital video then can become much more than an act of "translation" or transcription. In the same way that writing generates new thought rather than merely transcribes existing ideas, so too can the modalities of image and sound. Compositing and new recursivity, we argue, are not only processes inherent in the work of digital video, but are also critical cognitive experiences that require space and attention as we imagine a pedagogy for this new media form.

4. New media composers

We arrived at the observations above as we guided first-time moviemakers through the process of creating their own digital videos in our team-taught, two-week summer immersion course called Personal Essay Filmmaking. We were dedicated to expanding students' textual practice with multimodality by teaching them to create their own videos and believed that our two disciplines—film studies and composition studies—would mutually reinforce our pedagogical goals. We were influenced by Pamela Takayoshi and Cynthia Selfe (2007), who wrote, "Opportunities to think and compose multimodally can help us develop an increasingly complex and accurate understanding of writing, composition instruction, and text" (p. 6). In addition, we sought a means of inviting students to put Stuart Selber's (2004) multiple forms of literacy—functional, critical, rhetorical—into actual practice. Furthermore, combining our areas of expertise spoke to Anne Wysocki's (2004) contention that writing teachers "...can thus fill a large gap in current scholarship on new media; they can bring to new media texts a humane and thoughtful attention to materiality, production, and consumption, which is currently missing" (p. 7).

From the outset, our course foregrounded a clear set of compositional goals for our novice moviemakers, similar to those of the Center for Digital Storytelling: to employ a wide array of modes including visual, audio, and alphabetic text; to identify compelling questions; to locate and capture specific, evocative details; to create and define narrative structures; and to arrive at meaningful conclusions. In designing this course on personal essay filmmaking, we hoped our students would experience surprise and arrive at new insights by composing in the modes of print, image, and sound—a cognitive process akin to the experience of writing a personal essay. Our observations, however, reveal the significant difficulties students encountered in their efforts to navigate and engage these essential moments in composition across modes. We discovered that we needed to help them develop not only a deep understanding of the "affordances" of each individual modality (Takayoshi & Selfe, 2007; Kress, 2003), but also a conscious awareness of the various and shifting relationships *among* these modalities, and the ways this could (and often did) affect their entire composition. Although we had anticipated difficulty in helping students move from writing to filming, we weren't prepared for the ways in which such a shift pushed us to reconsider both the available model of digital video production and the limits of our respective fields' pedagogical approaches for guiding novices in creating their own videos.

4.1. Candice: "It worked on paper but not on film"

Our first example provides a glimpse of the kind of complex and self-reflective personal essay video we'd imagined students creating. It also, however, highlights the specific limitations of the prevailing model for digital video to account for either Candice's composing crisis or her subsequent solutions. As recommended by the Center for Digital Storytelling, Candice arrived at our class with a written personal essay about her mother that she'd written in another class with Megan. At first, her decision to work from that existing text (what the CDS would call a "story" or "script") made a lot of sense, given the time constraints of the course and her own ambitious vision of the final product. Yet as she made her film, her written script began to prove inadequate for her emerging insights. Candice's composing process and final product suggest the extent to which viewing a digital video as the "translation" of a pre-existing written script diminishes the act of multimodal composing. To truly acknowledge and use the affordances of the multiple semiotic channels means to embrace the discoveries inherent in images and sound; for those of us invested in studying composing processes, it also means we must relinquish writing as the sole and primary provenance of invention.

Candice's video examines her relationship with her mother within the context of the creative work of three generations of women. It opens with a close-up shot of a Grandma Moses wall mural depicting rustic images of rural life. As the camera pans over the details of the painting, Candice's voiceover narration describes the tendency she sees in both the mural and her mother's painting to represent farm life in romantic, nostalgic terms. The next shot, a sepia-toned image of a tractor, is accompanied by a recorded voiceover explaining that Candice had always seen her family as "simple people" who, unlike her, were not "interested in art and culture." The first half of the film, which was well-organized in her script, neatly establishes a visual dichotomy between the rural farm world of her mother and Candice's own urban and arts-oriented existence—a theme Candice intended to extend throughout the film. From the beginning, then, Candice imagined the ways that a preliminary synthesis of her visual and aural layer would highlight the idyllic vision of her family members. This compelling composite, she thought, would ground the subsequent sequence (e.g., scenes of city life, neon, etc.) that represented her difference from them. Candice's initial plan for her video depended on the work of compositing to articulate the themes of her video.

That careful plan was upset, however, when in the process of gathering footage, Candice happened upon a set of revelatory shots that she quickly edited into a brief montage. The shots juxtapose an image of her own red sneakers with an image of her mother's red boots. The new visuals prompted Candice to realize that while she and her mother may live in different worlds, they actually seek the same thing: the means of presenting and revising their relationship to their past—Candice through writing, and her mother through painting. The discovery that she and her mother shared a fondness for red shoes, in other words, worked on a much deeper level to trigger this substantial new insight that they were perhaps more alike than she'd thought.

In the final editing workshop of the class, Candice approached each of us for advice about how to finish her film, given its new implications. She and Megan looked at the text for a voiceover on paper and agreed that it was a satisfying ending. But when she showed the rough cut of the film to Megan first, and then to Kim, Candice remarked: "It worked on paper, but not on film." And she was right. Her film had led her to discover new meaning in the visual mode and arrive at insights that exceeded the written script. She returned to her film without the script and

discarded her original recorded voiceover. In its place, the revised closing shot is a self-portrait of Candice filming herself in a mirror. While much of the movie emphasizes Candice's search for words ("I could never have enough words"), the central fact of her film explores the insufficiency of language and her discovery of the power of visual representation. Her closing shot, with its uncharacteristic silence in the sound track, acts as a multimodal composite that condenses the revelations she's reached via the act of composing with video. To drive home her realization about her connection to her mother through their shared desire to create visual texts, Candice designs a visual that highlights self-reflection but purposely rejects her dependence on language. In this way, it's a surprising composite: one that purposely refuses to layer an aural track onto the visual as a way to create a meaningful effect. Significantly, in a movie about the process of revision, the most important realization is one that she arrived at *as she made* the movie. In other words, though she began with a written script, by the time she turned the camera on herself, by the time she noticed the resonance of her red shoes juxtaposed with her mother's red boots, her original story had begun to shift in unexpected ways. In her final class letter, Candice reflects on the insights prompted by her compositing, and the attendant responsibility she felt to recursively address her discovery: "I felt pretty prepared to embark on telling a short story, but as it turns out, when you have other factors, such as audio and visual the way you tell the story changes. I wasn't prepared for that challenge... Every time I added another layer such as the visual, I had to go back and reevaluate my story."

We were struck by the complexity of Candice's composing process for a number of reasons. Her work suggested that the compositions we hoped for required not only consistent attention to the meaning generated in a single mode across time, but also to the evolving relationships among and across modes as they came into contact with one another. The crisis in Candice's composing process began at the moment where her narrative, created via alphabetic text, was required to move to a different modality. As she filmed footage and audio to represent that story and began to edit them together, she encountered unexpected themes and ideas that transformed the original thrust of her story. While this was not a comfortable moment for Candice, it is, in our minds, a significant discovery. Candice's crisis indicates her willingness to engage with the new knowledge created in and across modes, and to take on the challenging work of recalibrating the entirety of the story to account for her visual and aural epiphanies, as well as those that occurred in the synthesis of these modes.

Candice's experience making her video suggests a need to expand current pedagogical models of video composing that begin with "write" and end with "edit." The linear model should have, in theory, led Candice to a seamless unified product. And it certainly could have. Yet our student discovered new meaning and arrived at distinctly different insights *after* she'd done her writing. In other words, the images and sounds she captured and the new relationships they suggested, meant that Candice's narrative changed *while* she was filming and throughout her editing. Sondra Perl (1979), in her examination of written composing processes, calls this forward and backward movement of a writer "retrospective structuring" (pp. 54-55). Perl's study was, of course, limited to writing, but her work emphasized the need to account for the recursive dimension of composing as a writer discovers (and revises) meaning. We see Candice's experience as an example of retrospective structuring across the multiple semiotic channels of print, sound, and moving images. The example of Candice's compositional project highlights the fact that composing across and among modalities is not a series of discrete stages, but rather a multiply recursive and iterative process—what we see as the "new recursivity" emblematic of new media composing. Candice's experience points to the ways in which the stage-model of write/film/edit failed to encompass her new insights, actually impeding invention, discovery, and revision. Katie, Candice's classmate, encountered the opposite experience. In our next example, the available model ended up serving to cement her unwavering reliance on alphabetic text, as well as her tight grip on an unchangeable written "script."

4.2. Katie: "I can't go to Oswego"

Throughout the two-week course, we continually used writing as one possible modality to help students discover topics to explore in their personal essay videos. Students were never far from their notebooks, and often turned to writing when they became stuck, lost, or, conversely, inspired. For the majority of students, writing emerged as a major tool at their creative disposal. But for Katie, writing and alphabetic text remained her sole tool. Throughout the filming and editing processes, Katie seemed unable to engage with other modalities that might represent her experience.

Katie chose to document her experience of attending SUNY Oswego before transferring to a college closer to home. One of the first things that struck us while watching Katie's personal essay video was the prevalence of text slides.

Throughout the course, we encouraged students to think about where and when text might be appropriate in a video and the specific affordances it offered. "Scenes" in which Katie's text appears on the screen, however, occupy about 40 seconds of a 2:29 video—a little over a quarter of the entire production. In addition, her still and moving images are also rife with text; in the opening scene, for example, she employs a "Ken Burns effect"—a slow pan shot—over a college application form for 18 seconds. She also devotes time to an image of a building identified by a text layer as "Cayuga Hall," a shot of a cell phone screen that reads "speed dial Mom and Dad," and a black and white map. What is significant here is that throughout the video, Katie's visuals—regardless of their origin—are predominantly images of alphabetic text.

While some professional filmmakers capitalize on the aesthetic and ideological effects of alphabetic text, Katie's personal essay video indicates a deep discomfort in engaging with the visual as a mode of conveying meaning, and a trenchant commitment to textuality as the sole means of telling her story. The non-alphabetic images that Katie does employ are largely literal. As students brainstormed a wide range of possible images to film (personal photographs, free photos available online, live footage, visual metaphors, etc.) Katie appeared frustrated, saying: "But I can't go to Oswego." Without the ability or opportunity to physically document the campus, she was unable to conceive of a wider range of representational options. Her video evinces that same confinement to a strictly representational aesthetic. As her voiceover narration describes her desire for a "happy and fun college experience," she sequences a series of stock still images: a college campus with two people in the foreground holding folders; an image of four young people at a bench laughing; and another of three students arrayed around a picnic table, smiling at each other over a textbook. Explaining how she "anxiously awaited the day I would move into my dorm room," she offers a still image of a college dorm room, replete with band posters, bunk beds, and lava lamp. At the end of her personal essay video, her voiceover recounts all the things she would have missed if she had stayed at Oswego. In each case, she uses still images of these events and people to match her description.

Katie's post-class reflective letter reveals her dedication to writing as her sole mode of meaning making: "I usually have a difficult time writing about myself. I was worried about taking this class because I knew that it was a class about personal essays. However, it was easier than I had expected because of the writing prompts that you gave us. It helped to point us in the right direction. While doing all of the writing for this course, I made some important realizations about my topic." Throughout her letter, Katie situates writing as key to her process of moviemaking. She mentions that writing prompts provided "direction" and a means of overcoming difficulties. Next, —a point so important that she repeats it—she explicitly links writing to realization, underscoring it as the primary mode in which her epiphanies occurred. In contrast to writing, specific filmmaking processes are largely reduced to the technical ("using a video camera"). Despite the other modalities made available to her, then, Katie made almost unilateral use of alphabetic text as her means of discovery and representation.

In short, Katie's video composing ignores the meaning-making possibilities inherent in new media processes, neglecting the specific affordances of the visual and aural layers, as well as the promise held by their combinations. In his cultural analysis of compositing, Manovich (2001) notes that "juxtapositions should play a key role in how the work establishes its meaning, and its emotional and aesthetic effects" (p. 158). A refusal to composite with an eye toward juxtaposition's potential, then, robs a video of its ability to affect the audience, and, more troubling, to construct and determine its own significance. Thus, when Katie substitutes an unwavering dedication to the written "story" for key compositing strategies, she limits her video in two ways: first, its anemic array of visuals prevents a richly evocative, multimodal relationship from occurring between the visual and textual modes. Here, it seems, Katie is dedicated to the strategy of mode-matching that Sorapure describes, by limiting juxtaposition of the visual and aural layers to a flattened one-to-one correspondence. Katie fails to experiment with the "productive tension" that is key to fully exploring and exploiting all of the elements of this medium. Second, Katie's close and continued determination to privilege the written word prevents her from considering the meaning-making potential of either the visual or aural modes, and thereby essentially eliminates any role they might play in either invention or revision.

Katie's experience with digital video is not, we suspect, unusual given our cultural history of print-centric composing. It's also not surprising that models for new forms of composing reference or build off extant models. But, as teachers invested in teaching composing as a process of thinking, discovery, and new insight, it is increasingly clear to us that a linear model of digital video composing that establishes and reifies writing as the first "stage," can too often create conditions rife for mode-matching. In this sequential description of digital composition, the semiotic resources of other modalities are not fully engaged until *after* the story is written. Given that "modes have different affordances,

potentials and constraints for making meaning" (Bezemer & Kress, 2008), to privilege one mode over another (in this case writing) may severely limit or curtail exploration of other modes for meaning-making. Katie's video was literally a "translation" of her written story from paper to screen—the compositional process outlined by stage-model descriptions of digital video. Thus, when print functions as the initial and exclusive mode by which self-knowledge is constructed, all other modes can become simply echoes of knowledge arrived at elsewhere, rather than viewed as independent systems that can themselves participate in the process of discovery.

5. Conclusion and implications

As we analyze our students' work with personal essay videos vis-à-vis the preeminent model for novice digital video, we are most struck by the ways in which a sequential, linear model of process both forecloses upon and neglects many cognitive moves we find crucial in any form of composing, but especially in new media composing. In our observations of Candice and Katie at work, we find a linear stage-model insufficient to account for the multiple relationships between and among word/image/sound that they wrestled with, and the subsequent kinds of composing decisions they either undertook or ignored. Where alphabetic writing involves invention, selection, and revision in one semiotic channel, digital video incorporates three semiotic channels at any given moment. In this new composing space, novices must make a variety of decisions about images, sounds and texts, and constantly address the effects that these create when synthesized. At the same time, they must also assess the evolving relationship among these new synthetic elements and adjust the progression of these to account for emerging narratives and themes. The malleability we observed in this process echoes the description by Jeff Rice (2007), who sees the new media composing process as one that involves "appropriation" in place of the traditional print-based hierarchy of coherence and order. Rather than assuming that structure and organization are inherent rules of writing, Rice suggests that they are, in fact, ideological positions. When it comes to new media composing, he avers that "it's not enough to simply cut and rearrange words or images. Writers also must reimagine the logic of structure as well; they must appropriate structure itself so as to *discover how digital culture engages more than one kind of structuring principle* [emphasis added]" (p. 58). If digital culture indeed challenges preexisting "rules" for order, structure, and hierarchy, then we need a model of process—itself a kind of "structuring principle"—that reflects this malleability and mutability rather than continuing to rely on a stage-model version of composing.

Compositing and new recursivity emerge as important composing processes in digital video and perhaps in multi-modal composing as a whole. Both serve to highlight the complexity students encounter when asked to create a text involving multiple, coinciding semiotic channels, particularly one that is designed to express a new understanding of their own experiences and its larger relevance to an audience. If our observations about the existence of the potential challenges of—as well as possible benefits of—these processes hold true across other courses, it may well be necessary to reexamine our current pedagogical models for guiding students through these complicated and anxiety-producing methods of making meaning. The sequential linear model of video production, as it stands, would need to shift significantly to acknowledge the important cognitive work that can, and arguably must, be done in and across multiple modes. We're not suggesting that students begin filming without any kind of plan or idea (though many expressed such a desire), but in our experience with novice moviemakers, adhering to a linear sequential model that subordinates other modalities to the principle one of alphabetic text can too easily become one of matching images and sounds to the written text rather than supporting authentic inquiry into new modes of communication, new means of self-presentation, and new kinds of stories. These new selves and stories, we believe, are crucial to students' production of, and interaction with, digital video in the public sphere.

Over thirty years ago, composition theorists critiqued the early stage-model of composing for its description of a linear temporal model that was better suited for describing the *product* than the *process*. By studying the actual processes of writers writing, this research enriched our understanding of composing and shifted subsequent research and pedagogical approaches. We now stand at a similar theoretical and pedagogical crossroads. To date, composition's embrace of multimodal and multimedia composing reflects a strong engagement with both emergent technologies and new media theory. The dominant model of digital video composing, however, has yet to shift accordingly. Thousands of people with little to no filmmaking experience are now broadcasting their work for the world to see on YouTube. While the majority of YouTube filmmakers are not employing a complex set of chaotic, multimodal composing processes, neither are they using a sequential linear model of write/film/edit. They are, however, without a doubt, engaged in producing new digital epistemologies (Lankshear & Knobel, 2003)—ways of constructing and representing the world

that are direct offshoots of the daily operations of the information age. It's time to examine and understand the dynamics of not only the new forms of textual products, but also the emerging composing processes. If, as teachers invested in guiding students in video composition, we continue to rely on a model that privileges alphabetic text and the use of still images, we run the risk of not only failing to engage with all of the tools new media has to offer, but also of relying on an anachronistic process model that is divorced from users' actual composing practices and increasingly less relevant for describing the actual cultural products they are now actively making. It's clear that we now live, teach, and learn in an information age that poses direct challenges to our foundational knowledge about literacy practices and textual products. Along with these seismic cultural and pedagogical shifts, it's time to expand, and perhaps reimagine, the accompanying process model so that we can invite a fuller consideration of and experimentation with the resources available to composers in the new media era.

Acknowledgments

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