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The Digital Manifesto: Engaging Student Writers with Digital Video Assignments

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Abstract

This article reports on two studies that examine the effects of introducing a video assignment in two intermediate-level writing courses. By examining how students compose written and video elements in tandem for a portfolio assignment, this essay underscores the need to engage students across modalities. The authors used low threshold (easy-to-learn) technologies to help students extend their capabilities to express ideas and to engage in "transmedia navigation." To mirror the writing process that relies on peer review of documents, the instructor used a freely available video annotation system that allows students to compose situated feedback on videos, thereby closing the loop on peer review of video documents. Both studies used a pre and post survey to measure student perceptions of engagement, confidence, and interest. The analysis also relied on student reflections to gain insight into the production process. The findings reported in the studies include several statistically significant gains in confidence on a range of abilities using similar assignments. We close with recommendations for instructors who want to incorporate a similar assignment in their writing courses.

Keywords: Composition; Video; Annotation; Writing; Peer review; Multimodal; Transmedia navigation; Student assignments

The Digital Manifesto: Engaging Student Writers with Digital Video Assignments

In their essay, "The 'Digital Native' Debate," Sue Bennett, Karl Maton, and Lisa Kervin (2008) deflated the myth that current undergraduates are distinctly proficient in digital technologies and possess a sophisticated knowledge of how to use information technologies. They described a much more complex reality that suggests students consume much digital content but produce very little multimedia. Rather than a radical digital revolution, this population tends to see more diversity in experience and a gradual evolution in technology expertise (Bennett & Maton, 2011).

Anchoring their work in the New London Group's (2000) conception of *multiliteracies*, Henry Jenkins, Katherine Clinton, Ravi Purushotma, Alice Robison, and Margaret Weigel (2006) argued that students need to engage with new creative forms like video to take full advantage of living in a participatory culture—a culture that values the ability to express ideas across multiple modalities. They argued that digital literacy needs to be woven into traditional

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coursework, that it must be taught and not simply assumed, so that students gain meaningful practice that combines critical thinking skills with new media techniques. Further, Jenkins et al. placed a primacy on *textual literacy*—reading and writing—and suggested these skills were foundational precursors to 21st-century literacies: "Youth must expand their required competencies, not push aside old skills to make room for the new" (2006, p. 19). One way to expand those competencies and literacies is by completion of multimedia assignments. For the studies reported in this paper, we revised writing assignments to incorporate a video production and peer-review component.

In many ways, the connections between writing a text and composing a video seem natural, with parallel development processes that include planning, drafting, peer review critiques, and revision. Taking this kind of connection a step further, Jason Palmeri (2012) wrote of the ways *multimodal thinking* (p. 32) played into the production of texts and of the ways this thinking had been a concern of the field of composition for some time. Similarly, Suzanne Choo (2010) explored the concept of visual thinking and its effects on writing. By investigating what she termed *meta-concepts*, such as angle, depth, and dominance in visual representation, and matching them to equivalents in written discourse, she helped students begin to think visually before they composed a written text. Daniel Anderson (2008) focused his composition classroom on the concept of production and framed his writing space as a new media studio. Using a series of assignments that involve collages and video slide shows that use free, easy-to-learn or "low-bridge" approaches to multimedia, Anderson emphasized the exploratory and reflective phases of writing as a way to motivate and engage students. Anderson asked, "Could it be that low-bridge new media technologies provide the right mix of challenge and ease of use for instructors and students to develop a sense of control, creativity, and flow?" (2008, p. 44).

In our current investigation, we wanted to design a composition assignment that spanned the writing workshop and the new media studio. In particular, we wanted to explore one of the *core media literacies* Jenkins et al. (2006) identified, *transmedia navigation*, to see if a hybrid form involving writing and video would be engaging and build students' confidence in expressing themselves in multimedia. We also wanted to explore whether the visual and written efforts would reinforce each other. The skill of transmedia navigation or transmedia storytelling draws from the availability and convergence of multiple sources of media—text, images, sound, video, etc.—to produce a new synthesis of those materials. Jenkins et al. wrote:

> Transmedia navigation involves both processing new types of stories and arguments that are emerging within a convergence culture and expressing ideas in ways that exploit the opportunities and affordances represented by the new media landscape. In other words, it involves the ability to both read and write across all available modes of expression. (2006, p. 48)

For our assignment to be successful, then, we felt we needed to gather evidence of three outcomes. First, the assignment needed to provide the opportunity for students to feel more confident in their technological abilities. Specifically, we hoped to see an increase in their confidence to author video texts. Second, because we are interested in transmedia navigation and the students' ability to compose across media, we wanted to see an increase in the students' confidence in their ability to navigate between and express themselves by way of different media types. Finally, we did not want the students to find the assignment tedious or underwhelming. Students should feel engaged by the project and by the opportunity to compose in written and video formats. We wanted to teach students not only how to use video but also how to gain meaningful practice in and think critically about expressing themselves in those dual media. To that end, we incorporated a video annotation tool into the assignment to learn how to adapt more familiar written peer-review methods to a new-media context. Accordingly, for our third outcome, we were also interested in the students' reception to and use of the video annotation tool in the peer-review process.

This essay reports on two studies we designed to examine students' confidence in and engagement with writing and video production in similar intermediate writing studies courses at an R1 institution in the Midwest. We used pre-class and post-class surveys to collect data from students in each course. We administered surveys in one course, and after collecting and analyzing data from them, we added a few questions to the pre- and post-class surveys for the next course. The pairs of surveys for each course, then, contained some identical items, but the pair for the second course contained additional questions unrelated to the common set for both classes. We report on these surveys and their results in this paper.

Despite the addition of questions to the second course's surveys, the process of developing a scaffolded assignment with a particular emphasis on how the two media of writing and video might advance in parallel and related steps was the same. We were interested in finding out whether students would successfully carry out such an assignment given the modest resources normally available to instructors in writing courses. Also, we were interested in what such

a process might help students learn about communication strategies in each medium. Our three research questions regarding the assignment were as follows: 1) Do students gain confidence that they can author video texts? 2) Do students gain confidence in their ability to navigate between different media types? 3) Do students feel engaged by making the videos as part of the assignment?

The courses

We selected two intermediate writing courses at an R1 institution in the Midwest in which to pilot the new multimedia assignments. Both 3000-level courses represent mid-curricular writing studies workshops, each focusing on a disciplinary topic. Although the topics varied in the courses, we designed the assignments to be structurally similar. These courses were taught in succeeding semesters, beginning in fall 2010.

WRIT 3381 Writing and modern cultural movements: Digital manifesto portfolio

The first course, WRIT 3381 Writing and Modern Cultural Movements, asked students to read examples of influential historical texts that aim to bring about cultural and social change in the modern era. The course focused on modern political, artistic, and cultural texts to build an understanding of how writing for cultural change had grown from specific rhetorical patterns as well as innovations. Common authors assigned in the course included Karl Marx, Fillipo Marinetti, Malcolm X, and Frances M. Beal. Typically, students were asked to write about these authors' texts in traditional essay formats to show understanding of the works' ideas and strategies. Students were also asked to draw on some of the texts as models for writing about current cultural and social issues.

In our revision of Writing and Modern Cultural Movements, we asked students to complete a digital manifesto project with the following components:

- a written manifesto
- a video version of the manifesto
- an annotated video peer review
- a revision of both written and video formats
- two written reflections on the process

These assignments were evaluated as a single portfolio, and students were expected to revise items across media, thus encouraging transmedia navigation behaviors. Students were asked to create their video, suggested to be 2–3 minutes in length, as an *analogue* of their written manifesto. The written language of the manifesto—with its embrace of ambitious cultural change, emphasis on insistent tone, and use of other generic strategies of the manifesto form—was to be recreated and perhaps transformed into the "language" of video with its own set of possibilities and constraints. In other words, the video was not meant merely to illustrate the written version of the manifesto but to *enact* it in visual, video-based language and to potentially influence the written text in the process of its composition. The audience for their writing and their video was the rest of the class and the instructor. Students were asked to work in groups of three to share expertise and foster a collaborative sense for the project. Finally, students were asked to present their manifesto and show their video toward the end of the semester; the entire portfolio was also due at that time. Some of the topics selected by students for the projects included statements on technology, media images of women, and gay rights.

WRIT 3315 Writing about the land and environment: Digital nature portfolio

In the second course, WRIT 3315 Writing about the Land and Environment, students read landmark environmentalist texts by authors such as John Muir, Aldo Leopold, Jan Zita Grover, and Linda Hogan. Themes of writers who have addressed environmental concerns were discussed in class and critically examined through short writing assignments. Typically, for a major project, students were asked to write an essay that advocated for an environmental cause.

After considering survey data and student feedback from the cultural movements course offered in the fall, we revised the assignment for Writing about the Land and Environment. In our revision, we closely paralleled the digital manifesto project by using the same style of portfolio work, cross-text interaction, and transmedia navigation. The new

writing and video assignment in the environmental course was termed a *digital nature* project and called for students to write an essay that advocated concern for an environmental cause and to create an accompanying video. Students also completed an annotated video peer review; revised their written and video drafts; and wrote two reflections, one in the middle of the portfolio assignment and another at the end, to explore the project process. As in Writing and Modern Cultural Movements, the emphasis for the project in this course was for students to think *across* the media of written text and video and to try to construct two complementary artifacts that worked together with similar, parallel languages to advocate for change in how humans interact with nature. As in the manifesto assignment, the digital nature project invited students to advocate for something (particularly in relation to the land) and to do so from within a group. Topics students selected for exploration included pollution, wetlands, and coal emissions. In the next section, we describe the two courses' portfolio projects in more detail.

The portfolio projects

In this article, we are presenting data on two portfolio projects developed for the courses described above. We designed the essay- and video-based portfolio projects to examine student confidence in transmedia navigation skills and to explore perceptions of student engagement with a multimedia assignment in the context of a writing course. To create the written and video artifacts in both classes, students went through an extensive set of stages:

- brainstorming ideas
- planning the execution of those ideas (outlining/storyboarding)
- producing text and video
- peer reviewing both text and video
- producing two reflective writings on the process
- completing final revision and editing for a final product

Adopting a scaffolded approach, our design of the projects in both courses aimed at building the written text and video in blocks students created in and outside of class (Table 1).

Table 1
Adaptable Transmedia Portfolio Projects in Intermediate Writing Courses.

		WRIT 3351 Writing and Modern Cultural Movements Fall 2010	WRIT 3315 Writing About Land and Environment Spring 2011
Weeks 1-7		Essay	
Weeks 1-12		Portfolio Projects	
		Manifesto Project	Nature Project
Weeks 1-8	Individual	Short reading responses	Short reading responses
Weeks 5-6	Group	Preliminary videos on readings	Preliminary videos on readings
Week 6	Individual	Manifesto plan/outline	Essay plan/outline
Week 7	Group	Storyboard and work plan for video manifesto	Storyboard and work plan for nature project
Weeks 8-9	Individual	Draft of written manifesto	Draft of nature essay
	Group	Cut of video manifesto	Cut of video nature project
Week 9	Individual	Peer critique of written manifesto using peer review sheet	Peer critique of essay using peer review sheet
Weeks 9-10	Individual	Annotated peer reflection of video manifesto using VideoANT	Annotated peer reflection of video nature project using VideoANT
Week 10	Individual	Mid-assignment reflection	Mid-assignment reflection
Week 10	Individual	Conference with instructor	Conference with instructor
Week 11	Individual	Final revision of written manifesto	Final revision of written nature essay
Week 12	Group	Final cut of video manifesto	Final cut of video nature project
	Individual	Post-assignment reflection on the composition of both video and written texts.	Post-assignment reflection on the composition of both video and written texts.
Week 11-16		Research Paper	

Students began the brainstorming phase by choosing an area of emphasis for their written essay and accompanying video. In class, students were asked to create maps of ideas as well as to write short responses to readings. In their project groups, students then narrowed ideas and established a focus. To begin developing a sense of what it would mean to create video with intentional strategies that would have an effect on the intended audience, students began by creating short preliminary videos based on a particular aspect of the readings. An idea such as Marinetti's embrace of the modern and its technology, for example, was translated by students into video shots of the modern taken around campus and its surrounding areas. Students then brought their preliminary videos into class to discuss and write about the idea or effect they were attempting to deliver. Asking students to articulate in class the reasons informing their recording intentions was an informal version of a task they would repeat in the two formal reflections. Our aim was to cultivate a reflective habit of mind and to remind students of the choices they were making with every shot they framed. To this end, short writings and recordings were interlaced throughout the assignment.

After creating and testing out their ideas and how they might work in writing and video, students developed a plan for the subsequent written document and video. As guided roadmaps, students wrote a brief outline of their planned written document and a storyboard for their video. The storyboard was important not only as a story guide but also as a work plan: Students needed to coordinate who would take which video shots, when they would take those shots, and where they might carry out their work. Limited time in class was provided at this point for planning group meetings and learning to work with the cameras. In this phase, students were encouraged to stay fairly flexible with their projects, with the proviso to stay on track with the schedule. Flexibility was important not only for troubleshooting video challenges (e.g., bad weather, undependable transportation) but also for the possibility that the actual recording of the video would sharpen what they wanted to write in their manifestos or nature essays. They were encouraged to revise the written and the video versions recursively, each media type influencing the other.

As students drafted their manifestos or nature projects and carried out the filming of their collective projects, work shifted outside of the classroom. Students filmed together, sometimes with the whole group, other times in subgroups, and sometimes they handed off the cameras and worked individually to capture particular shots one member might have better access to than others. Most shots were taken on campus and in nearby urban locations. In a couple of cases, students performed in their videos to create a particular impression or declarative expression.

After students completed their initial recordings and a draft of the written manifesto or nature project, the written and the video artifacts were put under peer review. For the written part of the portfolio in each course, the instructor designed a peer review sheet for completion as an in-class activity. Students exchanged their drafts with others in the class and discussed projects based on peers' written comments. Authors then received the completed review sheets to make use of them for the final draft.

At about the same time in the course, students carried out peer review of the videos by using a video annotation program called VideoANT. (See the next section for an extended discussion of video annotation and this program in particular.) Central to this video-based peer review activity was the demand for revision suggestions and the ability to capture those comments for later viewing. Students were asked to comment on the effectiveness of the strategies employed in the raw shots and to critique where, for example, the shots went on too long or did not achieve the intended emphasis. The saved annotations and the accompanying video were then made available to the authors for help in creating a final product. Around this time—the midpoint of the portfolio assignment—each student wrote a mid-assignment reflection of their experience on the project thus far. They also met with the instructor for an individual conference about the written manifesto or nature essay and had a group conference about the video. In both sets of conferences, the instructor asked questions to help clarify statements in the drafts as well as strategies used in the projects and to offer advice on trouble spots identified by the students.

The final phase of the portfolio project in each course was to revise and edit with the feedback given by the instructor and by other students. Students worked outside of class to revise their writing and were given a day in class to work together to edit the videos. Upon completion of the video and written texts, each student wrote a final reflection on the process of composing in two media. Students wrote their final reflections approximately two weeks after their mid-assignment reflection.

Video: Cameras, editing software, and video annotation application

Because we could not sacrifice too much time for in-depth technology training and because we wanted to make the project sustainable and reusable, we chose tools that were easy for the students to master. We also wanted to replicate

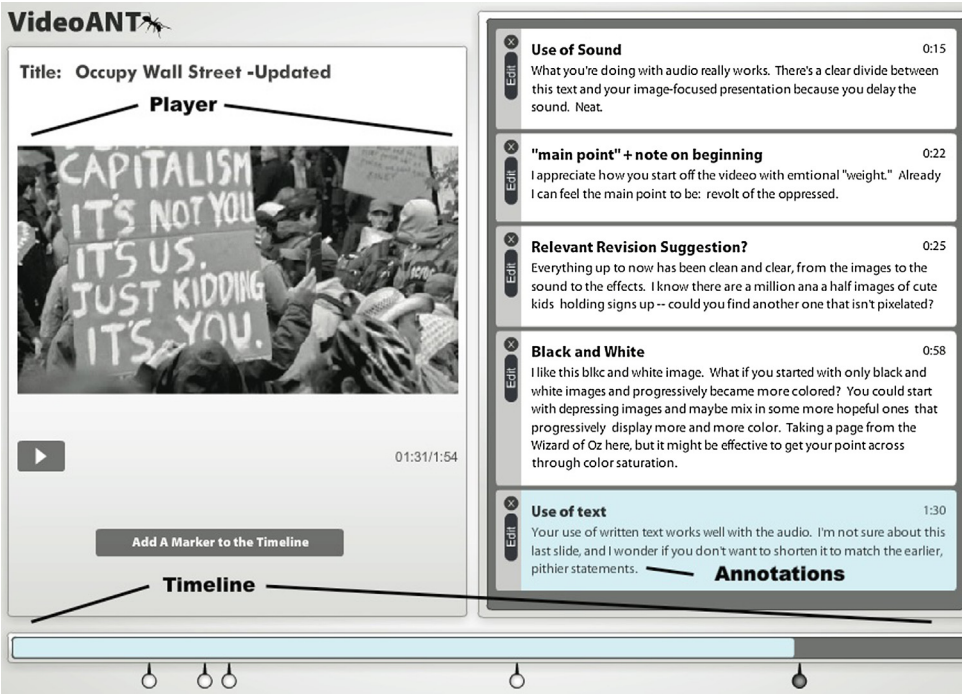

Figure 1. VideoANT with five annotations.

conditions students might have outside of the course, so we chose software that was freely available in the cloud (on the web) and used hardware students might already own or could borrow from the institution. To that end, we provided the class with 10 Flip UltraHD pocket video cameras the approximate size and weight of a cell phone. We also suggested students with smartphones might be as comfortable capturing video with those personal devices.

For video editing, students could use the university library media services that had a range of equipment, software, and consultation help. Students were guaranteed an hour of one-on-one help from a multimedia specialist and additional assistance when media consultants were not busy. Additionally, we made several short screencapture videos to illustrate simple procedural processes associated with editing, encoding, and sharing videos. Because most of the students own laptops, many of them already had access to programs like iMovie and MovieMaker. FlipShare, a very basic editor, came preloaded on the Flip cameras. We also suggested solutions on the web to which they could turn, Animoto (Educational Edition) and JayCut. To store and share their video, several groups of students chose to upload their video on YouTube, though we suggested MediaMill, the institution's protected media-sharing service. In addition to added privacy options, MediaMill allowed the user to create many different file formats from an uploaded raw video file. One of these formats is optimized for the video annotation tool we chose, VideoANT [http://ant.umn.edu].

Video annotation tools have largely been used to make written comments on recorded performances. For instance, preservice teachers are often videotaped and are given feedback on their performance using a video annotation system (Colasante, 2011; Rich & Tripp, 2011). Similarly, video annotation tools like VideoANT have been used to scaffold reflections in oral communication and public speaking (Hosack, 2010). In composition classes, we used VideoANT to help provide what Meg Colasante (2011) termed a "structured learning cycle that explicitly enabled annotations by learner, peers and teacher to promote interaction" (p. 85). Specifically, we asked students to upload their videos into VideoANT and share them with their peers and the instructor. VideoANT allows the viewer to play and watch the video on the left side of the screen and compose a listing of annotations on the right side (Figure 1). Annotations are keyed to specific moments in the video timeline so that when a user returns to a particular annotation, the video advances to that point in the file, and the relevant written text is presented simultaneously with the visual frame.

This function makes the tool—and most video annotation tools—ideal for facilitating peer review. Students could make written comments and situate them at exact places in the visual text just as they might when marking up a

Table 2
Benefit Comparison Between VideoAnt and MS Word for Delivering Feedback on Video Projects.

Benefit	VideoANT Annotation	MS Word Annotation
Efficiency	Only one software program required to be open: VideoANT	At least two software packages required to be open at the same time: MS Word and a video player.
Convenience	•Text and annotation appear in same document. •Allows reviewer to see video and annotations simultaneously in the same application. •Mirrors the process by which students provide feedback in a word-processed document by inserting comments alongside text (video).	•Text and annotation appear in different documents. •Requires reviewer to shift between video in one document and annotations in another. •Adds a step to typical peer-review process by inserting comments in separate document.
Ease of use	User pins an annotation to an exact moment in the timeline of the video. This precision makes it easier to offer comments on micro, mezzo, and macro levels.	User checks timecode in video (e.g., at 3:21) and records it in Word document. This more burdensome process may find students likely to resort to macro comments only.
Collaboration	Multiple reviewers can thread their comments to show consensus or disagreement.	Multiple reviewers' comments are stacked atop each other, not threaded.
Accessibility	Works on mobile devices such as tablet computers.	To watch the video and write comments, the user typically has to switch back and forth between apps, which can interfere with video playback.

document (Table 2). The instructor could then review the peer commentary *in situ* to examine the dialogue between peers as well as view the video.

By relying on mostly free technology and promising supplemental support from our library media services group, access to equipment, software, and training were not obstacles in designing and implementing these assignments. As more students own mobile devices integrated with video cameras—cell phones, smartphones, tablets, etc.—these technologies are becoming more ubiquitous. In separate surveys conducted across our institution in 2011, findings indicated over 50% of students owned smartphones, over 60% owned cellphones, and nearly 16% owned tablet computers (Walker & Greaves, 2011). These data reflected a recent Pew survey that revealed 66% of American adults ages 18-29 own smartphones (Rainie, 2012). Although we will always need to be aware of access issues, particularly in the area of training, we expect most university students will have some kind of basic access to cameras and free software to complete assignments like those documented in this study.

Survey instrument and data

To collect data for this study, we used four paper surveys. We administered two surveys, one on the first day of class and one on the final day of instruction in fall 2010 to all students in WRIT 3381 Writing and Modern Cultural Movements (the manifesto-project course). Likewise, we administered two surveys, one on the first day of class and one on the final day of instruction in spring 2011 to all students in WRIT 3315 Writing About Land and Environment (the nature-project course). Conducted with IRB approval, the surveys were optional, meaning students could choose not to complete them or participate in the study. All students in each course agreed to participate, however, and subsequently completed the course and both surveys. Students were asked to provide their student ID numbers to match their pre-class and post-class responses. We chose to conduct surveys rather than focus groups or interviews in order to collect quantitative and qualitative data from all students in an economical and uniform fashion. The surveys took 10 minutes to administer on the first and last days of class in each course.

Each course received a pair of pre- and post-class surveys with several common items. Questions were designed to measure students' perceptions of confidence and interest on a 4-point Likert scale. The pre-class surveys included 12 questions. The post-class surveys were slightly longer because they contained additional questions concerning course-related experiences that made sense to ask only at the end of class, after the course-related experiences occurred. For instance, in the spring term WRIT 3315 nature-project course, we asked about student use of the video annotation tool (VideoANT) that we assumed they would very likely not have encountered before taking the course.

The pair of surveys for the nature course in spring term included all of the same questions as the manifesto course in fall term as well as several new ones. We also made slight wording changes in the pair of spring course surveys to

reference its portfolio project; thus, "manifesto project" on fall term surveys was changed to "digital nature project" on spring term surveys when necessary for clarity. Both courses had essentially the same core group of questions, and the second course had several additional questions we wanted to explore.

The post-class survey in both courses asked several open-ended questions about the final portfolio projects and the students' experience of the assignment. For further clarification about how they viewed the experience, we also collected qualitative data by reviewing all students' two written reflections—mid-assignment and post-assignment.

Analysis

WRIT 3381 Writing and modern cultural movements

When students register for WRIT 3381, there is no indication the course will require them to use a video camera or editing software; thus, students do not choose this course because it affords them this opportunity. They select the course because of the content, the distribution requirement it fulfills, the fit for their major, the time of day, or any number of extraneous factors. During the term of this study, the course enrolled 11 women and 10 men; of these, 6 were sophomores, 9 juniors, and 6 seniors. On the first day of class before the course was introduced, all students were asked to fill out the pre-class survey with questions related to their confidence and interest in working with video as well as several visual concepts. Students responded by selecting answers on a 4-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (4). These initial ratings were matched with ratings on identical questions in the post-class survey at the conclusion of the course. A paired-sample *t* test was conducted on the 21 respondents, and, as indicated in Table 3, we found statistically significant differences and positive gains on 4 measures.

At the end of the course, students also reported an 8.5% increase in general interest in gaining better skills in video editing, completing media assignments in future courses, capturing video with a mobile device, and learning how to communicate more effectively with video and other media. This increase in interest was not statistically significant.

Again, on a 4-point Likert scale from *strongly disagree* (1) to *strongly agree* (4), students at the end of the course agreed or strongly agreed with the following:

- Making videos made the class engaging (3.48)
- I have a better understanding of the written form of the manifesto (3.43)
- The mobile technology skills I used in class will help prepare me for work after I graduate (3.33)
- Making videos made me learn more in the course (3.29)
- VideoANT helped me think more closely about analyzing video (3.24)

WRIT 3315 Writing about land and the environment

In the following semester, the topic and the assignment changed to match the environmental topic of the course. The course enrolled 12 women and 10 men; of these, 7 were sophomores, 11 juniors, and 4 seniors. We used essentially the same procedure for the pre- and post-class surveys, but as mentioned, we added several new items and changed the wording slightly on a couple questions to reflect the switch from the digital manifesto assignment to the nature video. Using the same 4-point Likert scale as in the previous surveys, we found significant differences and positive gains in

Table 3
Differences in Pre and Post Surveys ($n = 21$; WRIT 3381).

Presently I am CONFIDENT I can *edit a video clip*	($p<.01$)*	45.38% +gain
Presently I am CONFIDENT I can *tell a story with video.*	($p<.001$)**	61.95% +gain
Presently I am CONFIDENT I can *know when to select video, text, and still images to effectively convey what I mean.*	($p<.001$)	57.24% +gain
Presently I am CONFIDENT I can *translate a written concept into a visual expression using video.*	($p<.001$)	55.92% +gain

Note. *Less than a 1% chance that this difference is due to chance alone; **less than a .1% chance that this difference is due to chance alone.

Table 4
Differences in Pre and Post Surveys ($n = 22$; WRIT 3315).

Presently I am CONFIDENT I can display my ability to think critically through the use of video.	($p<.01$)*	35.77% +gain
Presently I am CONFIDENT I can analyze still and moving images.	($p<.01$)	61.53% +gain
Presently I am CONFIDENT I can use a mobile device (e.g. phone camera, Flip video) to create a class project.	($p<.01$)	42.16% +gain
Presently I am CONFIDENT I can translate a written concept into a visual expression using video.	($p<.01$)	36.75% +gain
Presently I am CONFIDENT I can know when to select video, text, and still images to effectively convey what I mean.	($p<.01$)	26.49% +gain

Note. *Less than a 1% chance that this difference is due to chance alone.

five items after conducting a paired-sample t test between the pre- and post-class survey responses (Table 4). All 22 students responded to both the pre- and post-class surveys.

As with the previous course, we used the post-class survey to ask students to rate several questions on a 4-point Likert scale from *strongly disagree* (1) to *strongly agree* (4). Students agreed or strongly agreed with the following:

- Making videos made the class engaging (3.17)
- Making videos made me learn more in the course (3.17)
- I can use mobile technologies to enhance my future learning (3.26)
- I have a better understanding of the "Digital Nature" writing assignment (3.13)
- I was able to update my concept of "nature writing" (3.04)

For WRIT 3315, we expanded the post-class survey questions to cover aspects of VideoANT, the video annotation system. In particular, we wanted to learn whether they found delivering and receiving situated feedback on video to be useful. Students used the same 4-point Likert scale as above and agreed with the following about VideoANT:

- Helped me provide specific feedback to students on their video projects (3.04)
- Helped to give me useable revision suggestions (2.91)
- Was easy to learn (3.13)
- Helped me think more closely about analyzing video (3.13)

Later in the survey, students were asked the following question: Do you think that working with VideoANT in a multimedia project changed how you thought about or delivered feedback and commentary to other students on written assignments? Student responses reflected a variety of opinions. Some felt it was no different from giving general comments on paper. For instance, one student wrote, "No, not really: It was like writing notes on the side of [a] paragraph for a written piece." Other students responded that the ability to key a comment to a particular point of the video was useful: "It made it easier to make specific recommendations at the exact point in the video in which the recommendations would be most effective." Another student wrote, "Using VideoANT made it much easier to leave comments on videos. I think that since it is easier to leave comments, the comments that are given mean more."

Discussion

The findings of both studies on the portfolio assignment should be read within the limits of the studies. These pilots did not include a control course that was identical in every facet except the target assignment. These are particularly difficult conditions to meet, but to do so would have helped us further isolate the effects of the assignment on students' perceptions. We also acknowledge the concept of *engagement* is fraught with interpretive problems (Porter, Rumann, & Pontius, 2011). We make no claim that students have a common understanding of that term; likewise, we recognize that when one student acknowledges "making videos made the class engaging," it may mean something different than when another student makes the same assertion. Thus the concept of engagement in our findings remains, to some degree, opaque and should in the future be illuminated with open-ended questions to probe each student's understanding of that factor.

Engagement: Invention and revision

Our goals for both courses included increased student engagement, and in both courses, students reported that composing videos made the class engaging. At this stage, we can only speculate about why this result is so. It may be the case that starting and revising an idea in different modes in the portfolio may lead to new insights and help students overcome impasses at the invention and revision stages. Gunther Kress (2000) noted that "the two modes—language and the visual—simply start from different concerns, are embedded in distinct ways of conceptualizing, thinking, and communicating" (p. 195). Creating these written and video texts in tandem may create a dialogic effect in which one mode necessarily affects the other and prompts new ways of seeing and revising. Using visual tactics, such as designing the frame of a particular shot, may lead to a new way of writing about a particular concept and thus present a more apparent strategy for revising a written draft. As Anne Wysocki (2004) pointed out, the use of visual images for articulating and rearticulating argument holds possibility for redefining how we see ourselves in relation to dominant language and societal structures (p. 16). Our students' projects might well have provided such a moment.

Further evidence of the engagement and resonance between the written and video sides of the projects were made apparent in the two assigned student reflections, one midway through the project and the second after the project was completed. In the first set of reflections (keyed to the invention and early drafting stages of the assignment), students reported an awareness of trying to capture and edit images to match a similar effect they had intended in the written manifesto. One student reported the group had successfully completed a manifesto that conveyed the group's ideas, but the new challenge was to "connect our manifesto and ideas to film. We've come up with some creative, good ideas. We just need to film more and expand on our ideas." Similarly, another student stated that in trying to get across the group's message of their manifesto, "I think it's interesting that we are actually able to find shots that reflect how we feel."

A few students were able to articulate in greater detail how their video shots would correspond to their written manifesto. In one instance, a student wrote that his group was trying to make a video that worked with a manifesto about the "negative effects of computer technology to people, especially in daily life." To convey this idea in the video, he continued, "We used lots of effects of the inside of a PC, with many color effects and visual effects. This is supposed to mean that our life is affected by computers negatively." Although it was less common, some students reported that directionality went two ways; in other words, the process of creating the video was helping students think of ideas for the accompanying written essay. In this vein, one student wrote, "Our group's paper is really rough but the more shots we take and see, the more ways we get inspired for the paper." For these students, the task of recording images became an invention strategy that led them to new ideas for generating ideas and writing text in the early stages of composition.

The second set of reflections (designed to be a formal consideration of the completed project) indicated students worked hard to intentionally create video shots that made connections to the course readings and their own written manifestos. Many students wrote about how their videos and written manifestos made use of rhetorical strategies introduced in the assigned readings. One student, for instance, reflected on how her group made use of headings similar to those found in Umberto Boccioni's manifesto titled "Futurist Painting." In the student's words, "We tried to mock this in our manifesto by using headlines like 'What we believe' and 'What you can do.'" Other strategies from the manifesto genre featured in students' videos included the intentional use of repetition, a questioning tone, and lists of demands. In some cases, students pointed to typographic innovations that appear in written manifestos—such as bold type, type that runs diagonally, and the use of all capitals—and various attempts to find video equivalents. For example, one group pointed to their repeated use of a shot of a door shutting on activists from different historical eras as an actual and metaphorical statement of history's refusal to address environmental issues. Students also sharpened some of the ideas that had been left rough in earlier stages. The previous student comment about the images of the internal workings of a computer and what they are intended to evoke, for example, originally settled on the general term "negative," but in the final reflection, the statement was more precise, employing the phrase "chaos and confusion." One might surmise that as students struggle with shot selection, they come to better understand what they are seeking to convey. They are compelled to reason why one particular angle or image or point of view is more suitable than another, and these production decisions might help them hone their final written texts.

Transmedia navigation

We wanted to learn more about the perceived interaction between the written and video assignments, so we asked students in the environmental course to respond to this question: How do you think your video project influenced

how you wrote and or revised your written ("digital nature") assignment? Students often mentioned their writing was affected by visual or moving criteria. One student wrote, "It definitely has an affect [sic], yes, I was writing more so to capture the flow, feel, and stills of the video than to just write about the topic. It adjusted my paper's style and rhythm." Another wrote, "I had to have shots in mind while writing," suggesting an effort to think about visual elements while writing. Another student commented, "It made me visually think [about] what point I was trying to get across and help me identify a more specific audience." Although it is unclear how to interpret "visually think," one way to see it is that it is part of the interchange between a written and visual project.

This connection seems to be echoed in responses to the following question: In your opinion, what would have been lost in the course if you had not had the opportunity to create a visual manifesto? One student suggested, "The ability to visually understand the concept." Phrases like "visually think" and "visually understand" suggest working with images and motion helped students stay engaged with material or consider it differently.

We had hoped for this back and forth engagement between the video and written projects, and our aim had been to increase students' confidence in their ability to navigate between different media types. In both classes, students reported statistically significant gains in their confidence to "translate a written concept into a visual expression using video." The ability to translate between communication modes drives to the heart of transmedia navigation and suggests the act of navigating between media might alter how some students think.

Technical confidence

Increasing students' confidence in their ability to author video texts was another aim of the assignment, and students reported increased confidence in the areas of editing a video, telling a story with video, choosing media types effectively, and analyzing still and moving images. As mentioned previously, although the instructor gave little instruction in these areas, students had multimedia consultation help, instructional videos, and relatively simple software at their disposal. Much of the gain in confidence over the course of the semester likely came from the experience and technical challenge of working on the projects and solving problems as they arose. It might be assumed that those who were less confident with video might have found their writing skills were applicable to a different modality, allowing them to draw on concepts they had already practiced. Additionally, creating a video as a group project might have helped students draw on each other's expertise rather than inefficiently hunt for solutions to common video problems. One student reflected on the group production process this way: "Something I find interesting is how three completely different people have one main objective, but how many roads we can think of to get there." That the students struggled to achieve a mutual end in their individual manners suggests a kind of engagement in the act of compromise and contention as well as a sharing of expertise.

Many students initially expressed doubt about their abilities with the technology in the initial written reflection, but this sentiment was not uniform. One student summed up the thoughts of many when she wrote, "Overall, I really hope our manifesto and video turn out well because even though I have no skills in this area, I am really enjoying filming and learning the process of making a digital manifesto." Another student wrote, "As far as technology is concerned, I'm learning to understand it the more I play around with it." Other students reported no problems in dealing with the technology. A response typical of the more confident students in this regard was this: "The technology aspect is not particularly scary to me as I am more than technology competent so it hasn't really entered into it." As the assignment progressed, anxiety over technology use was hardly mentioned at all. In the final reflection, a student wrote, "I am so happy that I had the opportunity to complete an assignment that taught me something I didn't know how to do. I have never used a Flipshare [sic] camera before or any type of video editing programs. It allowed me to [use] a whole different type of strategies." This rising trajectory of confidence over the course of the project suggests the amount of supplemental technical instruction—multimedia consultations, short targeted videos—was sufficient for the task. This finding also reinforces Cheryl Ball's (2010) suggestion that designing multimedia assignments to draw on the combined expertise of a group of students ameliorates the need for in-depth technical instruction.

Multimedia production and response: VideoANT

Finally, we had wondered how students would interact with a video annotation program, and if they felt it helped them critique work and advise their peers. In general, students found the software easy to learn and helpful for delivering contextual commentary. That several students felt they gave better, more meaningful comments because of VideoANT's

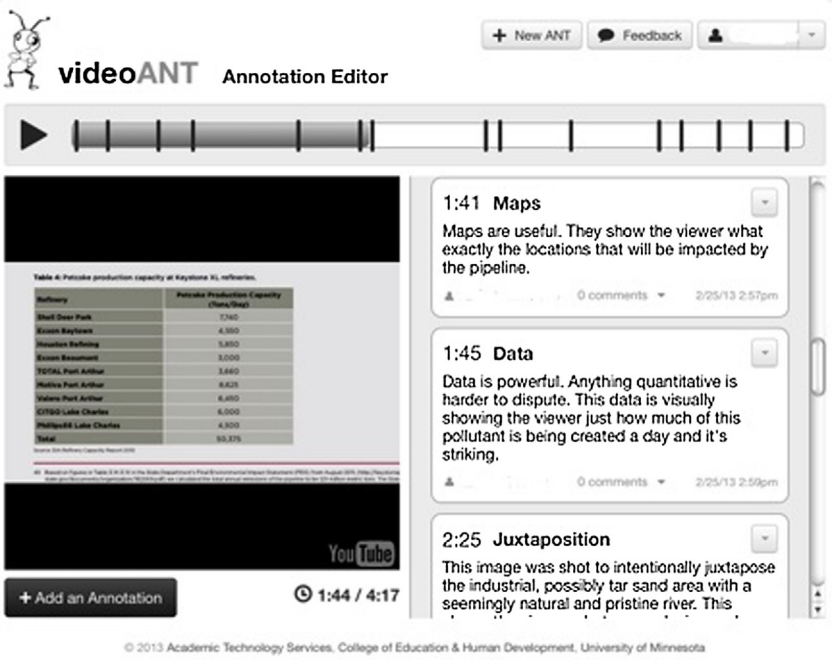

Figure 2. New version of VideoANT.

ability to pinpoint advice to specific moments in the video makes sense because this process invites the kind of situated feedback they were expected to give each other on written documents through Microsoft Word's comments feature. A tool like VideoANT that facilitates peer review and creates a structure to pinpoint moments in the video that need attention, in a sense, closes the loop in video composition; it gives the student a formal method to offer a temporally and spatially specific critique of a rough cut video. With a simple video annotation tool, we can reasonably expect students to reflect on each other's visual composition in a manner that requires specificity and targeted commentary. Although students could certainly return comments with a typed document, composing suggestions with a simple-to-use video annotation tool fit the learning situation that called for targeted feedback. Obviously, we couldn't ask students to mark up the actual video—literally enscribing the video surface—as we would ask students to write on a written text. The video annotation tool presented us with a near analogue to that written peer review process and allowed students to write comments directly next to the video. Both video and written commentary appeared in the same application, just as in a written assignment where peer review comments appeared in the same document as the original text.

Part of the value of any peer reflection is the ability to enter into a conversation with the authors of both the original work and the peer reviewers. With the next version of VideoANT, we will be able to design assignments that take full advantage of this value (Figure 2). Annotations will no longer necessarily be single comments. Each annotation itself can be commented upon, essentially creating the opportunity for a dialogue between author and reviewer. This functionality may also be a mechanism for allowing the instructor to enter into the conversation, commenting on both the video text and the peer commentary.

Recommendations for future study

Looking ahead, we see several challenges to address in the future, both in our next iteration of the portfolio projects and in the confluence of digital literacy and composition studies.

Future portfolio projects

One of our goals has been to minimize the need for technology training. The technology should serve the aim of the assignment, and the class cannot devolve into extended technical training. To that end, we plan to integrate

videosharing directly into the course management system, which is currently Moodle. In the future, students will be able to upload videos directly into Moodle and share them in groups and with the entire class. This feature eliminates the administrative snarl that erupts from sending multiple links to files back and forth among group members and the instructor. It is also simple, requiring a single authentication and the manipulation of a dropdown menu. All of these steps can be easily taught in a 2-minute screencapture video. This capability also facilitates the sharing of video throughout the life of the project, so that students can easily view and comment upon each other's work and brings us closer to the ideal of a participatory culture as described by Jenkins et al. (2006, p. 8).

In his discussion of multimodalities, Kress (2000) called out the importance of developing a visual semiotics or visual grammar (p. 199). Although we originally avoided the formal language of cinema, the concepts behind a visual grammar, particularly as they relate to translation between written and visual effects, can be useful in giving students a vocabulary and a set of tools for describing and making apparent their intentions in a spatial framework. For instance, concepts such as camera movement, camera distance, camera angle, shot design, framing, pacing, and so forth may be taught through a series of homework exercises and video examples. Having this language readily available to them may help students focus on techniques that cross over between writing and recording. We also valued students' attempts to forge new language gestures between these two media. As already noted, for example, one group of students recreated the notion of repeated items through the repeated video image of a door slamming in someone's face.

Although it was not the object of this initial investigation, in the future we hope to examine how writing changes when paired with a video assignment. Do some of the characteristics and structures of videography transfer to the written text? Are students more concerned with the specificity of their images, the point of view, the flow? In a recent study with the Pew Internet and American Life Project, Amanda Lenhard (2012) reported 27% of Internet-using teens (ages 12–17) record and upload video to the Internet. As the technical challenges of video sharing are reduced and the ownership of cell phones and smartphones with video recording capability increases, the barriers to multimodal expression are concomitantly lowered. We used simple pocket video cameras as a proxy for the commonplace cell phone video camera, but soon almost all phones will feature some kind of video recorder, and this ubiquity, supplemented perhaps by light media support to fill in the gaps, will allow most any classroom to add video writing to the curriculum. Kress (2003) has pointed to the need to develop theories and awareness of the choices exercised by "sign-makers" as they combine modes and make use of mixed forms (p. 169). We hope to explore how students make sense of the many possibilities that have become nearer to their everyday experience as they become more effective communicators.

Research in digital literacy and writing studies

Teachers who incorporate adaptable portfolio assignments into future composition courses can advance research in this area in many ways. As these everyday technology tools such as video cameras in tablets and phones become more ubiquitous, for example, researchers can fill in the picture of how students are already using these devices to create multimodal texts. A more formal quantitative study can be undertaken to compare effects of using video annotation software for peer review among students in experimental and control groups. Researchers may also design qualitative studies to probe for reasons informing student perceptions of confidence and engagement. Some instructors may undertake a collaborative longitudinal study within a discipline, incorporating video in a department's courses to study confidence, technical skills, and engagement over time. A longitudinal study within a department or college can begin to assess the ability of these portfolio assignments to make an impact on digital literacy within a cohort. Another avenue for study may involve adapting the portfolio assignment for a more public audience to explore more deeply the concept of participatory culture.

Conclusion

Our aim was to create a flexible digital writing assignment that could be used in a variety of writing studies courses, particularly at the intermediate level. We found increases in student confidence regarding their technical ability to author video texts and to navigate between different media types (transmedia navigation). Students also reported that making the videos made the class more engaging and that the video annotation tool helped them think more closely about their video compositions. The process itself generated a thoughtful, intentional working environment that asked

students to develop communication skills with multimodal thinking made explicit. In short, students increased their flexibility as writers. Significantly, student accomplishments were gained with only light technical help beyond that held by the instructor. Possible drawbacks to the process included the difficulty of assessing individual contributions within each group and the potential for students with weaker technological skills to have felt at a disadvantage (although no students expressed such sentiments to us).

Overall, we found the results of these studies encouraging, particularly because students successfully engaged with two similar writing studies courses on different topics, and we feel the assignment structure is flexible enough to be adapted to other similar classes. To that end, we would like to offer some suggestions for those who want to try a similar project in their class.

Help students grasp the totality of the assignment

The digital portfolio assignment requires students to keep track of many deadlines and responsibilities. Although students may be familiar with the general process for drafting and peer reviewing a traditional essay, asking them to engage in a parallel video development process with a group of co-producers can confound even the best prepared students if they do not have a clear picture of what the instructor expects. Provide them with a clear set of deadlines and remind them at key moments where they are in the process and what comes next.

Distribute expertise

Some students are more comfortable with technology than others, and it makes sense to distribute these experts relatively evenly among the project groups. It is also important to remind students they can contribute to the project in different ways but that they should take this opportunity to learn something new from a colleague. This assignment gives students a chance to expand their competencies as well as hone their current expertise.

Institute video peer review

We found video annotation tools like VideoANT to be extremely useful to students to "close the loop" in the peer review process. It is an extremely simple tool that creates a structure to mark up video based on temporal markers, and this situated feedback, along with the instructor's encouragement, helps students develop critical distance when viewing video and deliver focused reviews of video drafts. It allows students to use essentially the same peer review process on video texts that they have used for written documents.

Require significant reflection

Announce to students the significance of their reflections. These reflections give them the opportunity to explain the choices they made at major points in the assignment. The earlier reflections can focus on initial decisions about how they are interpreting or enacting their written texts, and it is a good idea to explicitly ask them to make connections between the two modalities. The latter reflections can address finishing elements of the video, and instructors may encourage additional focus on the written work to gauge how the visual elements influenced the writing.

If possible, be flexible with the final deadline

Due to the nature of working in a group and with new technologies, polishing the final portfolio products often takes more time than expected. To compensate for this additional time, we extended the timeline for the portfolio so that it overlapped with the start of the final major research project that culminated the course.

As we documented earlier, an increasing number of students have access to portable devices with camera technologies, and this access affords us the opportunity to invent new ways to help them use these personal tools for academic ends. The digital manifesto and digital nature assignments are two instances of projects that share a common assignment structure. The design of the assignment itself can be recycled to scaffold various topics following a similar process that engages both writing and video production in parallel.

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