Student Made Video Projects in a Computer Technology Course

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Abstract
Communications skills are universally recognized as important within the education of engineers, however these skills are often underemphasized in engineering and technology courses. One new approach to emphasizing professional communications skills is the assignment of student made video projects. Some scholars argue that video has become the current vernacular of our culture. Video engages an audience in ways unique to the medium. Becoming fluent in communicating with video technology expands the versatility of future engineers and engineering technologists.

Advances in digital video technologies have made these video projects within the reach of most undergraduate students, however many students have surprisingly little experience in this area. Outside of traditional media-making degree programs, few college students are required to create an edited video during their undergraduate experience.

This paper explores the implementation of a student-made video project in a computer technology course. The action research described is grounded in a media literacy framework that uses a mixed methods approach. The video project explored has similar goals as a traditional undergraduate written research paper, only having a video replacing the paper as the finished product. Students must do research on a topic related to Internet and computer networking technologies and present their findings in a video format.

Introduction

College students are enthusiastic users of mobile and social media technologies in their private lives, but are not often invited to make use of these in the classroom. Educators often assume that the ease with which students use certain digital technologies translates into having fluency with using *all* digital technologies; that students are "digital natives". [1] However, using technology to socialize with friends or for entertainment is not equivalent to using technology for learning by developing critical thinking or communications skills. Anthropologist and digital ethnographer Michael Wesch observes:

> "The surprising-to-most-people-fact is that students would prefer less technology in the classroom (especially *participatory* technologies that force them to do something other than sit back and memorize material for a regurgitation exercise)." [2]

The video project described here strives to do just that—to push students into using technology for their own active and participatory learning via a form of inquiry known as *action research*. If Wesch is correct, and most students *are* resistant to learning activities that bring them out of a passive role, this presents a significant pedagogical problem to address.

Action research is an approach that uses a participant observer studying his or her current environment. [3, 33] In the case of educators, this is typically within a classroom or course that is already being taught. Action research can serve as a bridge between theoretical and practical knowledge. [4] It is practical research that addresses an immediate, local need while providing opportunities for deep reflection leading to individual professional growth. [5]

Although there are similarities, action research should not be confused with case study research. Typically, case study research involves an independent, outside observer studying a phenomenon in a naturally occurring environment, whereas an action research study includes a researcher who actively participates in his or her own environment. For educators, this is often a classroom in which they teach. Action research creates "a synergy between the practitioners and the researcher as they test, modify and test again research ideas for solving real-world problems". [33]

Dorothy Craig cites three main reasons for conducting action research: "1) to bring about change and improvements, 2) addressing targeted goals and objectives that are attainable by the researcher, and 3) promoting collaboration and community among research participants which may result in improving conditions and situations for all members of the learning community". [3]

For this project, students in the spring 2013 Networking 1 course at Kansas State University Salina created "video term papers" in an assignment incorporating key aspects of traditionally written research term papers into digital videos that were ultimately published on YouTube. The project emphasizes the following core media literacy competencies: 1) search strategies 2) reading, viewing, listening and discussion, 3) close analysis of texts, and 4) multimedia composition. [6]

Applying Craig's framework to this video project, a desired change is 1) shifting from student passivity to active engagement and learning; a goal is 2) incorporating communications and media literacy skills into a STEM course; and a collaboration is 3) students doing an undergraduate research project that requires acquisition of new knowledge, skills and abilities, as well as sharing what they have learned with others.

Communication Skills

Communications skills are universally recognized as important within the education of engineers. ABET accreditation requires "*an ability to communicate effectively*" as a general learning outcome for engineering students.[7] Communication and other interpersonal skills can make or break the career of an engineer. As J. Ben O'Neal notes, "most engineers are limited in their career not by a lack of technical knowledge, but by an inability to reason verbally, communicate their ideas to others, and furnish leadership." [8]

Perhaps the most important of communications skills for students is writing. Writing is the process through which students think on paper, explore ideas, raise questions, attempt solutions, uncover processes, build and defend arguments, brainstorm, introspect, and figure out what is going on. [9]

> Writing organizes and clarifies our thoughts. Writing is how we think our way into a subject and make it our own. Writing enables us to find out what we know — and what we don't know — about whatever we're trying to learn (Zinsser, 1988, p. 16). [10]

While writing complements the derivation and problem solving exercises common in science and engineering courses,[11] including it often represents a challenge to professors teaching in these areas. Therefore, writing is traditionally taught by writing faculty instead of by those teaching in

engineering courses and curricula.[12] Much of the difficulty arises from STEM educators feeling inadequate or unqualified to teach writing, while others may simply lack interest or willingness to dedicate course time towards this effort.[13] Availability of time during a course semester is always a concern, however when writing is about thinking and understanding course concepts, it is not a peripheral activity but one that is one central to student learning.[14]

Communicating Through Video

A variation on traditional written communication comes in the form of digital video. Some scholars recognize video as the "current vernacular." [6, 15, 16] Poe argues that students who make successful videos must learn to closely read texts and to think critically. [16] Ludlow recognizes the student created video project as a reasonable substitute for written research term papers that are traditionally assigned and presented in college courses.[17] Some scholars describe student video projects as flexible and easily integrated into courses regardless of academic area and even suggest that students can learn material from videos made by other students.[18, 19]

> "With the ease and availability of video recorders and platforms such as YouTube, visual communication using small videos is becoming more prevalent. More practicing professionals will be expected to develop short informational videos to share concepts, document operations and train coworkers." [17]

One unique course offering at University of Illinois called *Writing With Video* began as a pilot course in 2005, and has since been added to the regular catalog. Although it substitutes video creation for traditional writing, this course satisfies the university general education requirements for advanced composition.[20] It can be challenging for college students who have only used written communication throughout their academic careers to make the shift into "writing with video." In a media studies course taught entirely with YouTube, Alexandra Juhasz's students, "realized how well trained they actually are to do academic work with the word — their expertise — and how poor is their media-production literacy." [21]

Video and motion graphics are transforming how science and technology concepts are communicated largely because video can show processes in motion rather than still snapshots of one point in time. Biology professor Rob Lue explains,

> "We're at the beginning of a new age in how we teach. Fifteen years ago, when I talked about this [visual pedagogy], few of my colleagues embraced it. That has changed. You will see a lot of visualization tools used at any scientific meeting—when, for example, you discuss a model with other biologists. It allows you to communicate swiftly, and it's not just the speed, but the level of sophistication you can get across." [22]

Educator and author Amy Leask argues that incorporating communications into STEM education invites a wider diversity of people to explore these fields.

> "Blending literacy and communication skills development into STEM benefits girls and women in that it validates skill sets that have traditionally been labelled [sic] as female, and brings a new perspective to these subject areas. Moreover, storytelling makes STEM more inclusive, appealing to younger children and to male learners who might otherwise

> not be as interested. Overall, learning to not just do STEM, but to talk about it, read about it and even be creative with it makes for well-rounded learners who are more ready to take on the challenges of STEM careers." [23]

One of the important trends in higher education described in the 2013 Horizons Report [37] is the emergence of MOOCs or Massively Open Online Courses. This new paradigm of distance learning represents enormous potential for educating the world, because it signals the possibility of higher learning for free. Video is a core communications technology for most distance learning, including MOOCs. However, the use of *student-made* video projects in the MOOC environment, as in most areas of higher education, is still in its infancy.

One exemplary model of an open online learning environment that *does* include student made video projects is DS106 (the DS stands for *digital storytelling*). [39] While claiming to be neither MOOC nor even a course, it does follow a free and open model of anytime, anywhere learning. As DS106 participant Margaret Herrick observes,

> "ds106 has given me the conviction that I, at 72, can make videos that tell my story beautifully, thoughtfully, and truthfully. The community aspect gives me the security that, no [matter] how busy I am with other things, I can always 'drop into' ds106 and continue to learn more." [39]

Media Literacy Framework

Over the years, media literacy scholars have devised definitions and frameworks that describe the key components of media literacy. A commonly cited definition of media literacy in the literature is the ability to access, analyze, evaluate, and create media. [35] Renee Hobbs provides an updated description with her media literacy framework: [36]

1. **Access** - Finding and sharing appropriate and relevant information using media texts and technology well
2. **Analyze** - Using critical thinking to analyze message purpose and meaning
3. **Create** - Composing or generating media content
4. **Reflect** - Considering the impact of media messages and technology tools on our thinking and actions
5. **Act** - Working individually or collaboratively to share knowledge and solve problems

While media literacy is not an official learning outcome for this course, the ability to effectively communicate is, and the media literacy framework guides and supports this aim well. Burniske describes media literacy as a merging of rhetorical traditions with emerging technologies. He argues that media literacy can be taught in all subjects, because every teacher regardless of subject matter expertise engages in rhetorical activities every single day. [37]

Student Video Projects

Using professionally made movies and videos as educational aids has nearly a century-long history, [24] but due to technological complexity, the use of student-made videos in coursework has been much less common. Improvements in digital video cameras and software have simplified

the process of creating and editing videos, however a majority of college students do not appear to be using video editing technology. [25, 26]

Published articles about student-made video projects in STEM courses have been a rarity, [27] however, a small increase in the number of such articles has been observed in recent years. Student-made videos have been described in courses such as chemistry, [19] chemical engineering, [17] thermodynamics, [28] and neuroscience. [18] While in general, students completing video projects in these courses reacted favorably to these assignments, a positive response was not always universal. The results of student surveys in these courses often describe divided and very strong opinions in favor of, as well as in opposition to such projects. [29] This may be, as Wesch has noted, [2] because of the intellectual challenge such projects represent.

Most college students have a narrow set of technological tools that they use for academic work, and only a small percentage explore tools and techniques perceived to be outside of the mainstream. [26, 31, 32] A recent study by the Pew Internet and American Life Project found that less than one in five traditional aged college students have ever posted a video online, and among non-traditional aged college students, even fewer have published these videos. [25]

Previous examples of college courses integrating video projects suggest a need for providing adequate time and support to students given these projects. One advertising course assigned a one-minute video project with no in-class instruction or support provided for video-making techniques and the students either loved it or hated it, with few falling in the middle ground. [29] Another course in thermodynamics took a similar approach having little in-class support or guidance on video-making, but the students were more generally positive about the experience.[17] One approach that has been used is to simply make the assignment optional for extra-credit, allowing students to decide whether they already possess or would like to gain the necessary video making skills. [19] Depending on the assignment format, students may work independently or in groups and the video topic can be assigned, or students can choose their own relevant topic.

Interestingly, Greene & Crespi noted that the student participants in their study generally failed to connect the experience of video production to their future careers in business. [29] This is not surprising, given the limited scope of technological skills most students possess. It may well indicate a need for explicitly emphasizing this aspect as a learning goal of the project. Explorations of successful business uses of digital video such as Blendtec blenders (http://www.willitblend.com/) or noteworthy failures, like the one described in the online music video about United Airlines breaking guitars, [30] can easily highlight the importance and relevance of this new medium to future entrepreneurs and businesspeople. That students such as those of Greene & Crespi [29] do not view video production as relevant to their careers raises more questions for future research with regard to student perceptions of video projects.

Research Methodology

This study utilized an action research approach within a media literacy framework examining a student-made video research project in an undergraduate introductory computer networking course. Approval for doing this study was sought and obtained from the university IRB. All student participants provided their informed consent. The instructor of the course also served as a researcher/participant observer for this study. Quantitative surveys were used for data collection,

supplemented by project assessments, qualitative interviews, classroom observations, and end-of-semester teacher evaluation comments related to the project.

Video Term Paper Overview

A required course in computer networking technology can sometimes be perceived as uninteresting by some students who do not immediately see the relevance of the subject to their lives and future careers. The majority of students taking this course will likely never be a network system administrator or support person, but some of the students are interested in precisely those careers, resulting in a great diversity of student expectations for the course. This diversity presents a challenge not unlike that of all STEM educators teaching classes having both subject majors and non-majors as students. However all students are currently using networking technologies on a daily basis thanks to mobile technologies and the Internet. Making connections between what the learner knows (the Internet) and what is to be learned (networking technology) is important to student learning.

One approach to achieving this aim is through a video "term paper" project that was assigned in the spring semester of 2013. This introductory course in computer networking technology is required for undergraduate students majoring in computer systems technology, electronics and computer engineering technology, and unmanned aerial vehicles (UAV). There were 27 student participants, with 24 male and 3 female students in this study. The majors represented include 17 computer systems, 6 electronics and computer engineering, and 4 UAV students. The breakdown by year in school was fairly even with 5 freshmen, 9 sophomores, 6 juniors, 6 seniors, and 1 unknown. Traditional aged students outnumbered non-traditional aged students two to one, with 18 students under age 26 and 9 students who were age 26 or above.

Students were given the option of choosing from a list of acceptable topics pertaining to computer networks and the Internet, or they could propose a new research subject to the instructor, which if accepted, could be added to the list for future semesters. The list was published on an editable class wiki/webpage where students could claim a topic by putting their name next to their desired item. This process allowed students to see which topics were already claimed and prevented multiple videos from being produced about the same subject.

While the assignment extended over the course of one month, two weeks of in-class time for the sixteen-week networking course were dedicated to working on this project. The rationale for devoting so much class time to this research project stems from studies suggesting that a majority of undergraduate students are unfamiliar with creating, editing and publishing original digital videos. [21, 26, 32]

Classroom instruction was provided on the tools and techniques that would be needed to successfully complete the video project. A staff librarian was invited to speak on the topics of copyright/fair use as well as how to locate the credible, authoritative sources required for the project. Additional class time was devoted to basic video editing techniques using the Sony Vegas software that is available in the computer lab. A separate laboratory activity was completed using the editing tools that demonstrated how much a story could be altered with creative editing. Successfully completed projects touched on each component of Hobbs' media

literacy framework [36] from accessing relevant information to be used through the act of sharing the completed work online.

Video Project Requirements

- Create an original video essay that informs the viewing audience about a particular topic related to digital computer networks and/or the Internet.
- Length of video is between 2 - 4 minutes, including credits. No more, no less.
- The format of the video should be a minimum of 360p (640x360). You may make it higher resolution, but this is the minimum requirement.
- The video must be uploaded and made available for public viewing on YouTube. You may publish under an anonymous pseudonym that does not identify you.
- Comments on your video should be turned off to eliminate the need for commentary moderation.
- Like a well-written research paper or informative speech, the video should have a clear and logical structure with an introduction, body and conclusion.
- The video should not be an opinion piece, but rather be the result of research you have conducted about your topic, with arguments supported by credible, authoritative sources. One of these sources must be a printed book obtained from the library or through interlibrary loan. Two of these must be from an edited journal or periodical. Additional sources can be from the Internet, and can be in multimedia form.
- All sources used must be cited in the video credits or in the video description on YouTube. If you use someone else's work in any form that you did not yourself create such as graphics, video, images, sounds, etc., it must be cited as such. Non-original video clips should not exceed 15-20 seconds in length.
- In creating the video, you must obey all applicable laws including those pertaining to copyright and privacy.
- The video should be technically well executed. Things to consider: lighting, sound, composition, camera angles, scene transitions, and pacing.
- The video should be visually interesting and aesthetically pleasing to watch. Be succinct, to the point and when possible, entertaining.
- The video should demonstrate a mastery of the information conveyed. You researched it, you are the expert, and your video should show this expertise.
- The video must be explicitly connected to the course topic of computer networks. For example, a video about Bill Gates should not simply be a biographical piece but should convey his contribution to the development and operation of computer networks.

Video Term Paper Assessment

If new forms of media such as digital video can be legitimately counted as a form of literacy as argued by some scholars [6, 15, 16] it follows then that assessment of such media might be modeled after existing assessments of written communications. For this project, an assessment rubric for evaluating the communications quality of the student-made videos was adapted from the AACU rubric for written communications. [34]

The results of the assessment of the student video projects are shown in Table 1.

Spring 2013 - student-made video assessment data

	Excellent [E]	Good [G]	Acceptable [A]	Poor [P]	
Context & Purpose	11 40%	10 37%	5 19%	1 4%	*Clarity of purpose, consideration of audience*
Content Development	12 44%	9 33%	5 19%	1 4%	*Relevant & accurate content related to computer networking topic*
Video Conventions	9 33%	7 26%	9 33%	2 8%	*Organization, editing, scene transitions, pacing*
Sources & Evidence	12 44%	10 37%	2 8%	3 11%	*Cites credible & authoritative sources*
Syntax & Mechanics	11 40.5%	11 40.5%	5 19%	0 0%	*Video length, aesthetics, visual & audio quality, script/narration, titles/slides*

Table 1

The highest overall rated assessment category was for *Sources & Evidence*, with 12 of the student videos rated as excellent and 10 rated as good at citing credible and authoritative sources. The lowest overall rated category was for *Video Conventions*, with only 9 excellent and 7 good ratings for organization, editing, scene transitions and pacing. A lower score in this category is anticipated given that most undergraduate students have limited or no experience with making video for academic communications. Traditional communication skills acquired in previous academic work appeared to translate well into this video term paper project, with a majority of videos being rated as good or excellent in all categories.

Student Perceptions Survey

Survey responses were recorded using the following scale: *1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree*. Mean scores are calculated on each question for traditional aged students (18-25), non-traditional aged students (26+), and all student participants.

Survey Items *Completing the Net1 Video project has helped me to…*	Trad Age (n=18)	Non-Trad Age (n=9)	All (n=27)	StDev
Communication Skills				
be more comfortable with using video editing software	3.78	3.39	3.52	1.05
be more comfortable with using video cameras.	2.61	3.11	2.78	1.19

be more comfortable with publishing video online for others to see.	3.06	3.56	3.22	1.01
consider video to be a valid form of professional communication.	3.33	3.56	3.41	1.08
be a better communicator in my future life and career.	3.33	3.06	3.15	1.03
Student Interest/Engagement				
increase my interest in learning about the subject of computer networking.	2.78	3.22	3.07	1.14
work hard at being knowledgeable on my topic of research.	3.78	3.39	3.52	0.98
enjoy the networking class more.	3.11	3.29	3.23	1.18
feel like I accomplished something worthwhile.	3.33	3.50	3.44	1.25
Project Value/Format				
I recommend this project for future students	3.11	3.56	3.41	1.19
I had enough time to do a good job on the project	3.78	4.17	4.04	1.09
I was given enough information to do a good job on the project	3.89	4.06	4.00	0.88
My finished project represents "college level" work.	4.00	3.72	3.81	0.83

Table 2

Student Survey Analysis

At the conclusion of the video term paper project, 27 students completed a 13 item survey of their experience using a five point Likert scale of: *1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree*. Student responses to the video project were mixed, with some really enjoying the experience, others disliking it, and most finding themselves somewhere in the middle. A majority of item mean responses hovered near the neutral score of 3, but there are still some interesting details that can be gleaned from this data.

Overall, students completing the survey felt that the video project was structured in such a way that they had the information needed (M=4.00/SD=0.88) and had sufficient time to do a good job on the project (M=4.04/SD=1.09). A majority of students felt that the work they did on their video project represents “college level” work (M=3.81/SD=0.83). There was some agreement on recommending this project for future students (M=3.41/SD=1.19) with non-traditional students (M=3.56) agreeing more than traditional aged students (M=3.11).

Non-traditional students tended to agree more than did traditional aged students that comfort with using video editing software increased (Non-Trad. M=3.78, Trad. M=3.39), comfort with publishing video online increased (Non-Trad. M=3.56, Trad. M=3.06), as well as seeing video as a valid form of professional communication (Non-Trad. M=3.56, Trad. M=3.33). However, on average, neither non-traditional nor traditional students felt that completing the video project made a significant impact on their becoming better communicators for the future in life or career (M=3.15/SD=1.03, Non-Trad. M=3.06, Trad. M=3.33,).

Students slightly disagreed with the project helping to increase their comfort with using video cameras (M= 2.78/SD=1.19), which could indicate a couple of things. It is likely that most students are already comfortable using video cameras, given the current ubiquity of such cameras in mobile devices. It is also possible that video cameras were not even necessary for completing the project. While recording original footage was not a requirement for this assignment, communicating original ideas was. Several completed videos were in a “mash-up” format that

remixed and combined video footage found elsewhere into a new and original work. Also, some videos used screen-capture technology to record information from a computer display, rather than information from a video camera.

In terms of student engagement, it is interesting that in general students agreed that they had worked hard on researching their topic (M=3.52/SD=0.98) and that they accomplished something worthwhile (M=3.44/SD=1.25). However, there was less agreement about the project increasing their interest in the subject of computer networking (M=3.07/SD=1.14) or increasing enjoyment of the class (M=3.23/SD=1.18).

Instructor/Researcher Discussion

We have been doing a research term-paper or multimedia project in the Networking 1 course for the past several years, however during the past three semesters, a video project has been the required format. The video project discussed in this paper was our first attempt at collecting data about student perceptions of doing the project. The course topic of computer networking is of widely varying levels of interest and relevance to the students required to take it, making the course an interesting challenge to teach. Including the video project is an attempt to allow for different interests and learning styles as the students take active ownership of a portion of their learning.

Including a video project in the course implements a novel approach to learning that is unfamiliar to most college students. It is this novelty that has been so intriguing to some students and so frustrating and/or frightening to others. For most students, it represents the challenge of being required to do something that they don't already know how to do. Engineers and professionals of all fields routinely tackle problems to which they do not have ready solutions, yet the educational experience of most American students typically involves a smoothly paved, pre-planned route to the "correct answer." Perhaps the most valuable aspect of this form of learning is that it is something unknown that must be mastered. Making video is not terribly difficult to learn to do at a basic level, but it requires practice and persistence. Persistence in the face of adversity is a valuable attribute, but one that may be lacking among today's college students depending on levels of maturity and intellectual development.

Perhaps this is a factor that partially explains some of the observed differences in attitudes towards this project between traditional and non-traditional aged students. Non-traditional students, by virtue of having returned to school after some time away, are already accustomed to operating outside of their comfort zone. Anything that school requires of them can be uncomfortable, yet they persist because they have set educational goals as well as the maturity to go after them. Meanwhile, traditional-aged students have spent the majority of their lives as students. They know and are comfortable with the normal "school routine" of passivity, and can be resistant when that routine is disrupted.

The video project ultimately is a communication project. Like the traditionally written research paper, it requires the gathering of reliable information, organization of ideas, and consideration of the audience. Used effectively, video can also communicate in ways that the written word cannot. [15] It is certainly a challenging way to represent academic thinking. A student might be able to procrastinate and knock out a written term paper with an all-nighter, or even worse—purchase one from an unscrupulous Internet vendor, but no student is likely able to accomplish

such a feat with this video term paper project. As the survey results and student comments indicate, some students appreciated the challenge and others did not.

Teaching Evaluation Comments Pertaining To The Video Project

Written commentary received about the video project at the conclusion of the course on the teaching evaluations was mostly negative. This is inconsistent with the results of the questionnaire results obtained, which were neutral to positive ratings on most questions. However, for the sake of completeness, all of the textual comments received that mentioned the video project are included.

> *At the end of this class the teacher assigned a video project and had subject to choice* [sic] *from. In this list was stuff about networking but the way the assignment was designed it was more of a digital media project. I spent more time making video and music than even touching stuff to do with networking. It was never explained how this would relate to networking.*
>
> *The video term paper was a fun project and learning experience, and I realize this class focuses around networking, but I did have a little bit of a problem making the correlation between networking and creating vidoes* [sic].
>
> *When you have an instructor that assigns you to make a VIDEO for a NETWORKING FINAL PROJECT, something is wrong here. Do NOT mix your digital media interests with Networking. It's not wanted in the class.*
>
> *I felt like the final project really derailed the class. I want to learn about networking not digital media.*
>
> *Really enjoyed final project.*

Even the most scathing reviews can be helpful for improving an assignment, if not taken personally. Clearly some of the students were upset with being asked to do this project. Educators should not make the mistake of assuming that students will be eager and willing to do a technology-based assignment like a video term paper. As previously noted, many students are content to remain passive in their roles as learners. [2]

However, several students made similar comments that they failed to see the connection between the project and the subject being taught. This recurring theme is something to consider for future versions of this assignment. It would be interesting to know if similar attitudes would be present if the assignment were given in the form of a traditional term paper rather than a video. As previously mentioned in the review of literature, it appears that many engineering professors are not assigning term papers in their courses, written or otherwise. [12] Is this pushback a resistance to the notion of doing term/research papers, or is it merely a reaction to the unusual form of media being requested? Can the relevance of communications skills in STEM courses be made more explicit? These are questions that should be considered for future versions of this assignment.

Summary
Some scholars are expanding their concept of literacy to include the creation of digital video. Because communication skills are vital to future engineers and engineering technologists, and because many undergraduate students possess a narrow range of technology skills, a video "term paper" project has been assigned in an introductory computer networking course. While the resulting videos showed some evidence of good communication skills, student perceptions of the assignment were mixed. Most notably, students doing the project noted that they worked hard at learning, accomplished something worthwhile, and felt that the project reflected college-level work. Educators should note that although students are avid users of digital media technologies in their personal lives, this does not automatically translate into eagerness for using these technologies in academic projects.

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