

TO: Copyright Office

FROM: Renee Hobbs

RE: Screencasting as an Alternative to Circumvention

DATE: June 10, 2018

You have asked for comment on whether screencapture technologies are an alternative to circumvention for media literacy education. I also want to clarify some points about the importance of unlocking DVD content to create captions and subtitles of film clips to support learning. In preparing this memo, I asked K-12 educators in my professional network to comment on how the image and sound quality of film and media contributes to its educational value. Responses were received from special education teachers, elementary and middle-school teachers, foreign language teachers, social studies teachers, media arts teachers, English teachers, school librarians, college faculty, and special education professionals.

Although Screencapture is Familiar to Teachers and Students, it is Unreliable.

Screen capture is a familiar production process to a growing number of teachers and students who use it to create informational and educational media. However, we have received reports from educators that screen capture software is not always reliable, especially as it intersects with certain forms of DVDs and streaming media. Brien Jennings, elementary media librarian at Narragansett Elementary School, and other teachers have informed me that they cannot always make a screencast clip of Netflix or Hulu programming, for example. Some teachers have reported that it seems like the recording is being made but when they save it, the resulting digital file is a black screen with no sound. This problem, which happens intermittently with different types of media, can be very frustrating for educators. When trying to make a recording of a clip from a film I had rented on Amazon Prime, I experienced this problem myself. I could not diagnose why the screencapture attempt was unsuccessful. Although screencapture can at times be suitable for media literacy education, its unreliability with some kinds of encrypted content is a problem that limits its use.

There are Problems with Screencapture Image Quality. Screencapture does not provide sufficient quality for many types of media literacy and media education uses. Often, video clips are viewed in classrooms where large numbers of students are viewing where there is poor ambient light control (i.e., an on-off switch, not a dimmer) and windows that do not fully (or even partially) darken. In American public and parochial schools, data projection devices are often poorly maintained and color hues and saturation vary widely as these devices age. Many school districts have a small staff responsible for maintaining equipment, and replacing outdated equipment at regular intervals is a luxury only available at well-funded private schools. As a result, a digitized screencapture video of a film clip can be highly distracting in both the inferior quality of the image and the inferior quality of the sound.

For learners who are creating videos for broadcast on local cable access, or who are submitting their work for submission to video competitions like National History Day, the quality of a screencast video clip can be noticeably inferior, especially when it is used in juxtaposition to original footage shot on 4K cameras which are now increasingly being used in a number of high school video production courses. When edited together, the contrast between the high-quality digital video and the lower-quality screencast video clips can be jarring and distract viewers, or seem to call attention to issues of image quality in an unwanted way.

Screencapture Sound is Inadequate for Some Learning Purposes. Language educators have long used activities that involve the use of audiovisual material enhanced with captions or interlingual subtitles to improve the listening comprehension skills of second-language learners. For foreign language teachers, screencapture clips sometimes fail to capture the sound quality needed for language learning. Because screencast recorded sound includes the ambient sound in the room where the screencast was recorded, this works to the detriment of the learning experience. For example, a teacher described creating a screencast in the context of K-12 education setting, which is rarely quiet. Sounds of lockers slamming, hallway voices and unexpected interruptions can make a screencast truly inferior as a media artifact for learning, leading to the creation of a clip that contains sounds that are distracting to student attention and learning.

Teachers also sometimes use captions on film clips to support learning. While many film DVDs include captioning, which helps students to visualize the language they hear, some do not. Teachers may want to create specially captioned clips because subtitling can increase language comprehension and lead to additional cognitive benefits, such as greater depth of processing, but only when teachers help students make efficient use of captioned and subtitled material.¹ When learning Spanish, for example, the use of clips from popular television programs can provide valuable exposure to diverse speakers' use of spoken language when it forms part of a structured class activity. Research has shown the value of audiovisual pedagogy on listening comprehension, oral production and confidence in generating language.²

Some teachers intentionally use same-language subtitling to support the literacy learning needs of poor and low-income students. They design learning activities where learner themselves caption film clips to strengthen listening comprehension and writing skills. Researchers have found that captioning high-interest, current popular films and music videos can enhance the impulse to read among people who have acquired a functional reading ability, minimally at the second-grade level. People with emergent decoding skills enjoy engaging with current film clips and experience increased motivation, especially those who have had long experience with repeated failure.³ Screen capture

¹ Danan, M. (2004). "Captioning and Subtitling: Undervalued Language Learning Strategies." *Meta: Journal des traducteurs/Meta: Translators' Journal*, 49(1), 67-77.

² Vanderplank, R (2010). "Déjà vu? A Decade of Research on Language Laboratories, Television and Video in Language Learning." *Language Teaching* 43(1), 1 – 37.

³ Kothari, B., & Bandyopadhyay, T. (2014). "Same Language Subtitling of Bollywood Film Songs on TV: Effects on Literacy." *Information Technologies & International Development*, 10(4), 1-31.

software, however, does not allow the insertion of captions. An additional video editing step is needed to include captions or subtitles.

Screencapture is not Suitable for Some Learners. For advancing the critical analysis and media literacy competencies of students with learning disabilities, access to highest-quality video and audio resources is especially important. Jacklyn K. Siegal of Winston Preparatory School, a teacher who authored an article on teaching media literacy to learning disabled students, explained that students with delayed cognitive processing need to see the film images clearly, especially if the content is presented quickly.⁴

According to Judy Raicheck, middle school teacher at Springton Lake Middle School in Media, Pennsylvania, the need for high quality clips is essential. She teaches a Media Studies class for grades 6, 7 and 8 for “all levels of student, from those who are gifted down to those who are ‘life skills’ Special Education students. I see nearly every student in our school -- approximately 900 students -- and have the opportunity to shape their understanding about how to view and understand digital media. This instruction would suffer greatly if the examples I used were not high quality digital video, available for free or low cost. These students are surrounded by digital video daily and have become super critical of works that they can’t see or hear clearly because of quality issues. I also rely on this material because I have no specific curriculum and have created one by curating video materials from a variety of different sources, which are far more interesting than text. Without the availability of high quality AV teaching material, I don’t know what I would use in the class that would attract and keep my students’ attention and help them learn.”

Teachers are Required to Select Curriculum Materials to Meet Students’ Needs.

If access to high quality digital clips were to be limited, teachers would be unable to use film to support student learning. Mary Moen, a professor of school librarianship, explained how the Rhode Island Professional Teaching Standards requires teachers to create instructional opportunities that reflect an understanding of how children learn and develop. The strategic use of film and media is tied to this requirement. Today’s teachers understand the highly-mediated worlds that American children inhabit and they see how their expectations about media directly affect the learning process. These professional teaching standards also require teachers to create instructional opportunities that reflect a respect for the diversity of learners and an understanding of how students differ in their approaches to learning. One of the reasons why Rhode Island teachers seek to use current, timely film examples is that they are required to “use their understanding of to create connections between the subject matter and student experiences.”⁵ This is a major reason why teachers use clips from contemporary film in the classroom to promote learning. In Rhode Island, all educators are required to “seek information about the impact of students’ specific challenges to learning or disabilities on classroom performance, and work with specialists to develop alternative instructional strategies to

⁴ Siegel, Jaclyn K. (2017) "Teaching the Presidential Elections Using Media Literacy in the LD Classroom," *Journal of Media Literacy Education*, 9(2), 91 -104.

⁵ Rhode Island Department of Education (2007). Rhode Island Professional Teaching Standards. Available: <http://bit.ly/2HAijWj>

meet the needs of these students where appropriate. They must make appropriate accommodations and modifications for individual students who have identified learning differences or needs.”⁶

While screencasting may be adequate for some learning contexts, it is not yet a suitable replacement in all cases. We believe that in many circumstances, circumvention of encryption is still needed for fair use purposes to support learning.

⁶ *ibid*