Enhancing Instruction with Visual Media: Utilizing Video and Lecture Capture

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INTRODUCTION

In higher education, many of us scramble to leverage technology effectively—even videos. Video media can transform lectures into reviewable documents. The prevalence of video-recording devices can motivate student self-expression and facilitate reflection, and the portability of video media can help students interpret their learning as extending beyond the confines of the classroom. Haunted by educational videos of the 1980’s, however, many of us experience an unwarranted fear of remodeling our offices or classrooms into personal production studios. Others suffer at the thought of asking students to generate their own videos with tools we do not use ourselves.

Enhancing Instruction with Visual Media offers its readers user-friendly insights into the why, what, and how of educational video media. Its authors address student motivations and learning, technological options, and pedagogical applications. The scope and depth of this collection provide researchers, instructional technologists, and professors with executable knowledge for transforming both on-ground and online courses into interactive environments, suitable for digital immigrants and natives alike.

Organization of the Book

In the preface, the editors remind us of the unnecessary difficulties we experience in engaging students during the “video era” (p. xiv). Studies indicate that both interactive video improves student satisfaction and the vast majority of students want lecture capture in their courses (p. xv). Through TED Talk and other venues, professors can find preexisting educational videos (p. xvi). Learning Management Systems, of
course, have long enabled professors to embed video content, but now they offer opportunities for professors and students to interact via videos in feedback, discussion threads, and emails (ibid). In other words, the video era provides not merely distractions, but more importantly, a wealth of opportunities for student engagement.

The editors appropriately titled the first section, “Setting the Stage.” The section’s four chapters outline a vision for video media, options for utilizing preexisting educational videos, and tools for creating lecture captures and videos. In “The Digital Lectern,” Tom McBride and Ron Nief focus on lecture capture as a means of transforming on-ground courses into truly active-learning environments. These authors of Beloit Mindset Lists speculate that lecture capture will become an educational norm (p. 4). It both preserves the efficiency of lectures and converts them into reviewable (ibid), parsed (pp. 8-9), and archived (p. 5) learning objects. They also enable greater experimentation, like integrated courses, without the logistical problems of accommodating space and time (pp. 4-5). McBride and Nief, in other words, explore the possibilities of the “flipped classroom” model, in which students acquire course content on their own but assimilate that material under the guidance of a professor and with the help of their peers.

The next three chapters detail methods and tools for finding, utilizing, and creating digital-media content. In “Navigating Multimedia,” Julie A. DeCesare provides a guide for how to find and integrate visual media. The chapter outlines search features, types of video archives, educational sites, copyright issues, impacts of browsers and software on video quality, and tutorial sites. DeCesare also addresses best practices for integrating videos into courses.

Patricia Desrosiers and Terri Gustafson center their chapters on digital-media tools. Desrosiers evaluates three platforms for video streaming and hosting, web conferencing, and lecture capture; details each in terms of its costs, pro’s and con’s, and general features; and suggests how to utilize them in online and hybrid courses. Gustafson takes a wider scope.

Gustafson outlines various tools for handheld and lecture-capture hardware, as well as tools for screen capture, video editing, videoconferencing, and distribution. Both chapters provide readers with a rich background in the available resources.

In the next section, three chapters focus solely on lecture capturing. Robert Gibson and Ann Miller recount their study of student satisfaction with presentation capture at Emporia State University. Rather than record lectures for student review, faculty and students evaluate students’ interactions with clients via live stream or recordings. The chapter raises awareness about how easily faculty can repurpose such technology.

Next, Patrick Moskal et al. describe the results of two studies in business-administration courses at University of Central Florida. For both studies, students self-selected into either a purely face-to-face section or an over-enrolled section supplemented with lecture capture. Other than enrollment size, student demographics, and access to streaming and recorded lecture captures, students encountered the same course (pp. 79-80). For the expanded study, the authors studied fifteen courses for six semesters and additionally stratified student-registration data. The chapter provides valuable insights into the potential benefits of lecture capture in meeting the needs of students with competing work or familial obligations, serving upper-division students, and circumventing the enrollment limitations of classroom space.

Finally, Steve Garwood outlines the detriments and benefits of digital learning objects and proposes best practices from the field of public speaking. Garwood catalogs educational resource sites and reviews “rapid eLearning” programs, those which enable the design of multifaceted digital objects, often singular learning modules that integrate narrated slides with accompanying games or quizzes (p. 91). Garwood also evaluates screencasting—the capture of not lectures in a classroom, but rather narrated activities on a monitor (ibid). Additionally, Garwood appraises lecture capture and reviews best practices for delivery.
and presentation. For best practices, Garwood addresses the quality of equipment, workflow, scripts, rehearsals, segmented lectures, and editing (pp. 96-97). The recommendations then extend into the realm of public speaking. Garwood appropriates the concepts of thesis, audience, delivery structures, persuasive methods, reiteration, rhetorical questions, voice quality, and multimedia design (pp. 98-101). The chapter provides readers with both an orientation and an advanced reference guide.

The third section of *Enhancing Instruction with Visual Media* dedicates three chapters to the topic of short instructional videos. Elizabeth J. Vincelette analyzes the use of screencasts for providing feedback on student essays in a first-year writing course at Old Dominion University. Not only can instructors create more-detailed, multisensory feedback (p. 109) in less time (p. 108), but according to survey results, students prefer the in-depth screencasts to text-only alternatives (pp. 114-16). The chapter raises awareness as to how video media can improve the effectiveness of course delivery.

In the next chapter, Curtis Kunkel recounts his team’s experiences in developing a wiki with college-algebra tutorials for students at University of Tennessee at Martin, in particular for students in off-campus centers, in dual-enrollment programs, or online (p. 129). For the wiki’s videos, the team settled on pencasts via Livescribe’s Pulse SmartPen. The SmartPen records both scribbles and audio, its docking station uploads the resulting video onto the computer, and Livescribe Desktop software uploads the video to Livescribe’s remote servers. The team then can share the video in a variety of different ways, including by embedding it into the tutorial wiki (p. 133). Kunkel’s chapter not only introduces uninformed readers to the option of pencasting, but also walks readers through the product-selection and problem-solving processes.

Finally, Peter M. Jonas and Darnell J. Bradley propose that instructors utilize brief, humorous videos to help students construct their understandings of course content. Students learn best through the multiple modes of communication deployed in videos (p. 143). Meanwhile, research indicates humor can improve student learning by increasing enthusiasm, focus, and understanding; it also bolsters memory, encourages metacognition, lowers inhibitions, and improves faculty-student relationships (p. 140). The chapter argues that merging humor with found, instructor-designed, or student-created videos can lead to more effective student learning.

The next section of *Enhancing Instruction with Visual Media* centers on research-based best practices. In the first of the section’s three chapters, Paula Jones et al. explain the online teaching strategies that web conferencing supports and then outline potential problems and both solutions and recommendations. The term ”web conferencing” refers to a virtual but synchronous, recordable class meeting. Web conferencing enables screen sharing, simultaneous viewing of multiple webcam feeds, virtual whiteboards, instant messaging, and other features (pp. 156-57). It expands communication and fosters interactivity (p. 151). Web conferencing also humanizes the online course by emphasizing instructor and peer presence (ibid). The authors enumerate possible difficulties, from learning curves to the coordination of a large number of attendees (p. 160). However, they also provide an extensive list of recommendations (pp. 160-61), including a pre-session checklist (p. 161). The chapter introduces readers to web conferencing and provides a reference tool for those involved with the practice.

Sharon Stoerger continues the theme of fostering presence to humanize online courses. Instead of web conferencing, Stoerger focuses on instructor-created videos and includes the results from two student surveys in an online course comprised predominantly of graduate students (p. 169). The chapter poses a strong argument for forfeiting professionally-created educational videos in favor of even unpolished ones that enhance the instructor’s presence.

In the third chapter, Paul Chilsen calls for screen-media literacy and outlines the Rosebud Institute’s attempt to answer that call at Carthage
College. The term “screen media” “[describes] media produced, created for, and unfolding on the screen …” (p. 178), including writing (p. 180). Chilsen reviews multiple pilots that either satisfied graduate credit or provided off-campus professional development under the direction of the Rosebud Institute. The chapter emphasizes the need for students and professionals to understand audience and context, as both consumers and creators in this highly public, quickly-political digital environment.

The final section of Enhancing Instruction with Visual Media is dedicated to student-created videos and student-centered learning. Gail Matthews-DeNatale draws attention to the multi-sensory reflection opportunities of multimedia assignments. In a first-year service-learning course (pp. 194-95), students created “story maps” (p. 195) to contextualize their acclimation process and reflected on their service-learning experiences via multimedia journals. Matthews-DeNatale also evaluated graduate students’ use of ePortfolios. In both contexts, students expressed their appreciation of the creative opportunities afforded by multimedia platforms (pp. 199, 201). The chapter provides readers with insights into how student-created multimedia affects different student populations.

In the next chapter, Marianne Castano Bishop and Jim Yocom synthesize problem-based learning, Bloom’s cognitive domain, and Universal Design into a pedagogical approach. By assigning video projects, Bishop and Yocom structurally encourage meaningful collaboration (p. 209) with higher-order thinking skills and multiple modes of expression (pp. 211-12). The chapter outlines considerations (pp. 212-14) and best practices (p. 212).

The third chapter provides a companion to Chilsen’s chapter. Also from the Rosebud Institute at Carthage College, Christine Wells likewise argues for screen-media literacy, to help students liberate themselves from passive consumerism or worse, digital objectification (p. 222). Instead of letting e-circumstances define them, students must develop the skills to operate on a potentially global stage (pp. 223-24). They have to cultivate “the basic skills in creating an intentional digital presence” (p. 222). At the Rosebud Institute, students improve their screen-media literacy through two focal points: one on storytelling with “motion media” and another on the organization and presentation of a digital self in an ePortfolio (p. 224). Wells divides these lessons into stages for duplication elsewhere (pp. 230-34) but reminds us, first, that students need these skills not specifically for careers in technology or design, but rather to create, organize, and share a digital presentation of self (p. 228-29); and second, that no two student cohorts have the same digital access or needs (p. 228). The chapter raises awareness about the consequences of our digital age and the responsibility we as educators have to prepare students to act deliberately in it.

Next, Christine Davis reviews the theory and design of course delivery that relegates knowledge acquisition to homework in order to reserve the classroom for activities. In addition to increasing student responsibility for the learning process, this flipped model improves the quality of faculty-student interactions (p. 242). Inverted learning has the potential to both accommodate digital learning habits and enhance oversight in the students’ development of higher-order thinking skills (p. 243). The chapter outlines the components of a flipped course, as well as the general design, problems and solutions, and technical considerations.

Last but not least, Rochelle Rodrigo and Kristopher Purzycki tackle the topic of mobile learning. Although still behind laptops, smart phones already appear in the hands of almost 50% of Americans, the majority of college students, and slightly more Hispanic and black students than whites (p. 269). Because mobile devices lack the spreadsheet and word-processing capabilities necessary for traditional classroom activities, many professors lose sight of their potential as tools for student reflection (p. 269). Students can create videos in which they synthesize and present course content (pp. 270-71), capture “real world” examples (p. 271), or collect data (p. 271-72). The authors remind us to investigate each student’s
technological access (p. 272) and skill (p. 273) before developing assignments, as well as to consider accessibility, privacy, and copyright issues (pp. 274-75). The chapter provides appropriate closure to Enhancing Instruction with Visual Media. It reminds us that video media not only can motivate student self-expression and facilitate reflection, but also help students contextualize their understanding and interpret their learning as extending beyond the confines of the classroom.

SUMMARY

Recommended: This edited collection provides an in-depth review of the why, what, and how of educational video media. Its insights into student learning, technological options, and pedagogy offer both an introduction and guide to researchers, instructional technologists, and professors alike. Enhancing Instruction with Visual Media is a valuable resource for those interested in video media for online, hybrid, or on-ground courses in higher education.

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