Lecture Capture Task Force—Final Report
Academic Computing Advisory Committee
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1. *Overview*

The extended closure of the University of Miami as a result of Hurricane Irma raised significant questions about continued course content delivery in the event of a natural disaster. The Lecture Capture Task Force* (LCTF) was tasked with exploring the use of lecture capture to provide course content to students during an extended university closure. The delivery of course content forms one part of a multifaceted university response to emergencies and natural disasters, during which the safety of students, faculty, and staff is paramount. Above and beyond personal and institutional safety, a prolonged campus closure raises issues of program accreditation, student retention, and matriculation. Tracking and documentation of the movement of students and university personnel during a natural disaster are also challenging, though these data are key to devising strategies and determining the logistics for remote course delivery. This report presents the data collected by the LCTF in Spring 2019, addressing issues and concerns raised by lecture capture and strategies already employed across the university for recording and archiving course lectures. It will conclude with a set of recommendations for implementing lecture capture and present a plan for a pilot program of course recording in Fall 2019 in the newly-renovated Tier 3 General Purpose classrooms (GPC).

2. *Analysis of Data Collected*

The data outlined below consisted of interviews with university administrators and responses to a questionnaire circulated to department chairs and personnel involved with student affairs to each of the university's schools and colleges.

• The UM Office of Assessment and Accreditation indicated that in the event of an extended campus closure course content could be offered online and students could remain in their home states/countries and enroll in classes at UM. However, offering classes at another academic institution would require approval from SACSCOC and the Department of Education. [See Document 1 in Box folder]

• The UM Office of Emergency Management has devised a continuity planning guide that addresses responses to short-term and long-term campus closures. [See Documents 2 and 3 in Box folder] A number of online course delivery options exist at UM already that could be optimized for a larger number of faculty. Other documentation provided by Emergency Management includes a Continuity of Instruction Plan from East Carolina University and a white paper from the Disaster Resilient Universities Summit outlining approaches to disaster management. [See Documents 4 and 5 in Box folder]

• The UM Office of the Registrar provided demographic data on the student population that highlighted the complexity of communicating with students under emergency conditions. [See Document 6 in Box folder] The number of students who live on and off campus are almost equal, but the large international student population as well as those from outside of Florida add to the complexity of contacting students in the event of a campus closure and ensuring access to remote delivery of course content.

- The LCTF circulated a questionnaire about course contingency plans and lecture capture to department chairs and administrators in every academic unit at the university. [See Document 7 in Box folder] The responses can be summarized as follows:
  - The overwhelming majority of academic units had no contingency plan for content delivery in the event of a natural disaster, but many units expressed interest in developing such a plan.
  - The respondents expressed a number of concerns about the feasibility of continuing instruction during a campus closure (identifying the location of faculty and students, access to teaching resources, power, and internet service).
  - Many UM courses do not lend themselves to lecture capture. There is an uneven distribution of spaces and facilities that could be used for lecture capture across UM campuses, and lack of technical support. [See Section 5 for Tier 3 General Purpose classrooms]
  - Most faculty and administrators did not attempt to contact students during the campus closure for Hurricane Irma, and no concerted efforts were made to deliver course content.
  - The responses received highlighted the need to have in place an emergency closure plan for each academic unit, and the potential effectiveness of archiving course content for delivery in the event of a longer campus closure along the lines of that necessitated by Hurricane Katrina.
- Based on the research outlined above, the LCTF makes the following recommendations:
  - To devise and make public an emergency and curriculum contingency plan (through UReady or otherwise) for all academic departments.
  - To identify current resources and those needed to implement lecture capture in each school and college.
  - To include information on all course syllabi concerning emergency and curriculum contingency plans. This is of particular importance for faculty who teach core courses fulfilling degree requirements.
  - To undertake a pilot program of lecture capture in Fall 2019 using the Tier 3 General Purpose classrooms [See Section 5 below]. This initiative would include collecting data from participating faculty, testing the robustness of IT support, and establishing best practices for a larger implementation of lecture capture university-wide.

3. *Concerns raised by Lecture Capture Initiative*

In analyzing the data collected, the task force identified a number of legal, administrative, logistical, financial, and curricular challenges. The logistics of remote course delivery in the event of a natural disaster are quite daunting, given the extraordinary number of variables associated—access to electricity and internet, location of faculty, students, and staff, anxiety and stress associated with the event. Other practical concerns address the procedures for lecture capture itself. The university would require substantial financial expenditures for hardware and software to install in classrooms, in addition to training for faculty and technical

support. Most classrooms are not equipped for the video/audio recording of lectures and most faculty do not employ any methods to record their presentations in class. [See Section 4 for lecture capture methods in use at UM] Another important logistical challenge lies in the storage and delivery of content, requiring long-term server space and university personnel responsible for the protection of these data. Once the data are in hand, there remains the question of how and when they will be distributed to students.

Though lecture capture presents significant advantages in the ease of course content delivery, it has the potential to oversimplify and genericize the knowledge disseminated in university coursework. Many types of courses simply do not lend themselves to remote delivery. The use of pre-recorded classes in the case of a campus closure can assist some faculty and students but not all. On such uneven curricular terrain, the university would be hard-pressed to make remote learning mandatory. Legal issues arise concerning the assignment of intellectual property to the recorded lectures—to whom do they belong, to whom will they be distributed, and how and when can the content be modified or deleted? Privacy concerns are also paramount as well, related to the professor's intellectual property being recorded as well as the students' presence in the classroom during the videography. Accessibility and distribution of content to students with disabilities also need to be ensured in both the recording and sharing of course materials. From an administrative perspective, to what degree do the Faculty Senate and other university advisory bodies need to weigh in on a large-scale implementation of lecture capture?

4. *Lecture Capture Methods in Use at UM*

- Miller School of Medicine
    - The Department of Biochemistry and Molecular Biology (Dr. Myers) employs SWIVL, a portable recording unit with an iPad that hosts the SWIVL software. Presentation files are easily uploaded to the SWIVL cloud server and then engaged through the SWIVL app on the iPad.
    - The school employs lecture capture in small group sessions, laboratories, and clinical experiences, recording lectures using Panopto and storing them on a Panopto Server. Blackboard is used to disseminate all course content and quizzes. Exams are given online using ExamSoft (for in-house generated exams) and web-based exams through the National Board of Medical Examiners (NBME).
- School of Nursing
    - In response to Hurricane Irma, faculty recorded lectures and PowerPoints utilizing Collaborate in Blackboard. They also used Zoom video conferencing to capture content, PowerPoints with voice overs, I-Spring to develop more advanced presentations, and Kaltura Video Platform.
- School of Law
    - Dr. Robinson audio records his courses on a Sony IC recorder and then downloads the content onto iPods that are checked out to students.
    - An Echo360 video platform is used for the school's lecture capture, combined with Kaptivo white board capture systems. Lecture recordings can be uploaded on Echo 360, which provides links to content and archives lectures.

- Department of Continuing and International Education
  o All course content is provided online through Blackboard—using the Blackboard Ultra video chat tool, the discussion board, and the submission portal for tests, quizzes, and other assignments
- Business School
  o All 16 classrooms offer lecture capture facilities
- School of Music
  o Many faculty use a flipped-classroom model that relies on pre-recorded video lectures

5. *Pilot Program of Lecture Capture in Tier 3 General Purpose Classrooms (Fall 2019)*

Of the 243 class sections that could potentially participate in the Fall 2019 Lecture Capture Pilot Program, sixteen courses would be selected, providing a broad cross-section of classes from schools and colleges campus-wide.

Groundwork for Implementation:
- University leadership consulted
- Faculty informed and incentivized to participate
- privacy and intellectual property issues addressed
- Pre- and post-test survey developed

Implementation:
- Faculty of selected courses could participate in capturing a small sample of lectures, or record all class sessions for the semester
- Options would be offered for recording content only; video of faculty only; video of faculty and students
- Recorded lectures would be saved on a USB drive and then uploaded onto a web-based platform for dissemination (Blackboard, for example)
- Faculty and students of selected courses could conduct a simulation of a one-week semester closure
  o During the simulation, faculty would upload content for the course and have the students test remote access from a variety of locations and devices

Outcomes:

- At the end of the semester a survey will be circulated to collect feedback from faculty and students about the implementation and results
  o The survey responses will guide the larger-scale implementation of lecture capture

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