Title: Scaling Academic Video Technology to Increase Student Engagement Campuswide

Challenge: Given the rapid increase in the number of learning technologies available, it’s becoming harder for colleges and universities to keep up. Faculty find it difficult to ascertain what’s the right tool for their classroom, while universities struggle with being able to provide consistent support for the myriad of tools being used. Additionally, as colleges and universities face increased pressure to improve student outcomes with more limited resources, effectively deploying technology that actually increases student outcomes at scale is becoming increasingly critical.

Solution: To overcome this challenge, in 2014 the University of Cincinnati deployed a learning ecosystem, known as Canopy, that provides faculty and students with a centralized portal of available education technologies, all vetted through a rigorous quality-control process and approved by an IT council of administrators, faculty members, students, and staffers. By 2015, the University had only approved two tools, including an LMS and open source video platform, and realized they needed a tool that would enhance the student experience where it matters most: the classroom.

In 2015/16 academic year, faculty and students in 35 courses across three colleges piloted Echo360’s academic video platform, which marries a high quality video (commonly referred to as lecture capture) with engagement tools to streamline and enhance the student learning experience. Using Echo360’s platform, students are able to watch class lectures online and on-demand 24/7, ask questions in an anonymous and risk-free way, take time-synced notes, and engage with faculty and peers in real-time - all from a mobile device, tablet or computer.

Using the data-driven insights generated by Echo360, faculty are able to see what’s working for students, and more importantly, what’s not. Using an intuitive learning dashboard, faculty are able to understand how students are interacting with course content, what is most beneficial, and what can be changed to improve instruction, engagement and student understanding.

Learning Impact Outcomes:
To date, over 75 classrooms at UC have dedicated appliances installed that facilitate the automatic recording of lectures. Since the initial deployment in 2015 (Source: UC Data Dashboard), UC has seen the following:

- Percentage of classes increased from 1.91% to 4.19%
- Percentage of enrollments increased from 2.88% to 7.46%
- Capture and slide views increased from 1,347 to 103,466
- Hours of capture increased from 610 to 6,137
In 2017, University of Cincinnati and Echo360 will work together to more closely study the impact of this dramatic increase in usage and engagement on grades. Echo360’s influence on improved student grades and higher student satisfaction has been documented in the following research studies published by Echo360 customers:

- At Davidson College, academic leaders and instructional designers have been collaborating to test new approaches to pedagogy and course content supported by the Echo360 platform to turn the tide on success in introductory science courses. The Davidson academic research team analyzed student behavior and grade data. Their findings, Encouragement for Faculty to Implement Vision and Change, were recently published in the peer-reviewed journal, CBE Life Sciences Education.

- Melissa Gross, Ph.D., Associate Professor at the University of Michigan, School of Kinesiology, and her colleagues, published “Effects of image-based and text-based active learning exercises on student examination performance in a musculoskeletal anatomy course” in Anatomical Sciences Education. This study examines the impact of active learning using the Echo360 platform and image-based exercises in anatomical sciences.

**Return on Investment:**
At a time where college enrollments are on the decline, student retention is not only critical to the university’s academic mission, but also plays a critical role for the overall health of the university. University of Cincinnati will be measuring the ROI of its investment with Echo360 with metrics including increased student engagement in class and improved semester-to-semester retention. The teaching and learning behaviors collected and analyzed by this solution are ideal for understanding program and institutional performance and enabling comparisons across them. The Echo360 solution also facilitates active learning, which has been shown to improve learning outcomes over more traditional forms of instruction and integrated assessment of understanding. The way the University of Cincinnati is able to capture and analyze behavioral data from each teaching and learning moment empowers a cycle of continual improvement that continues to raise the bar over time as we clarify learning objectives, improve mastery of subject matter, increase assessment scores, and enhance pedagogy and student engagement.