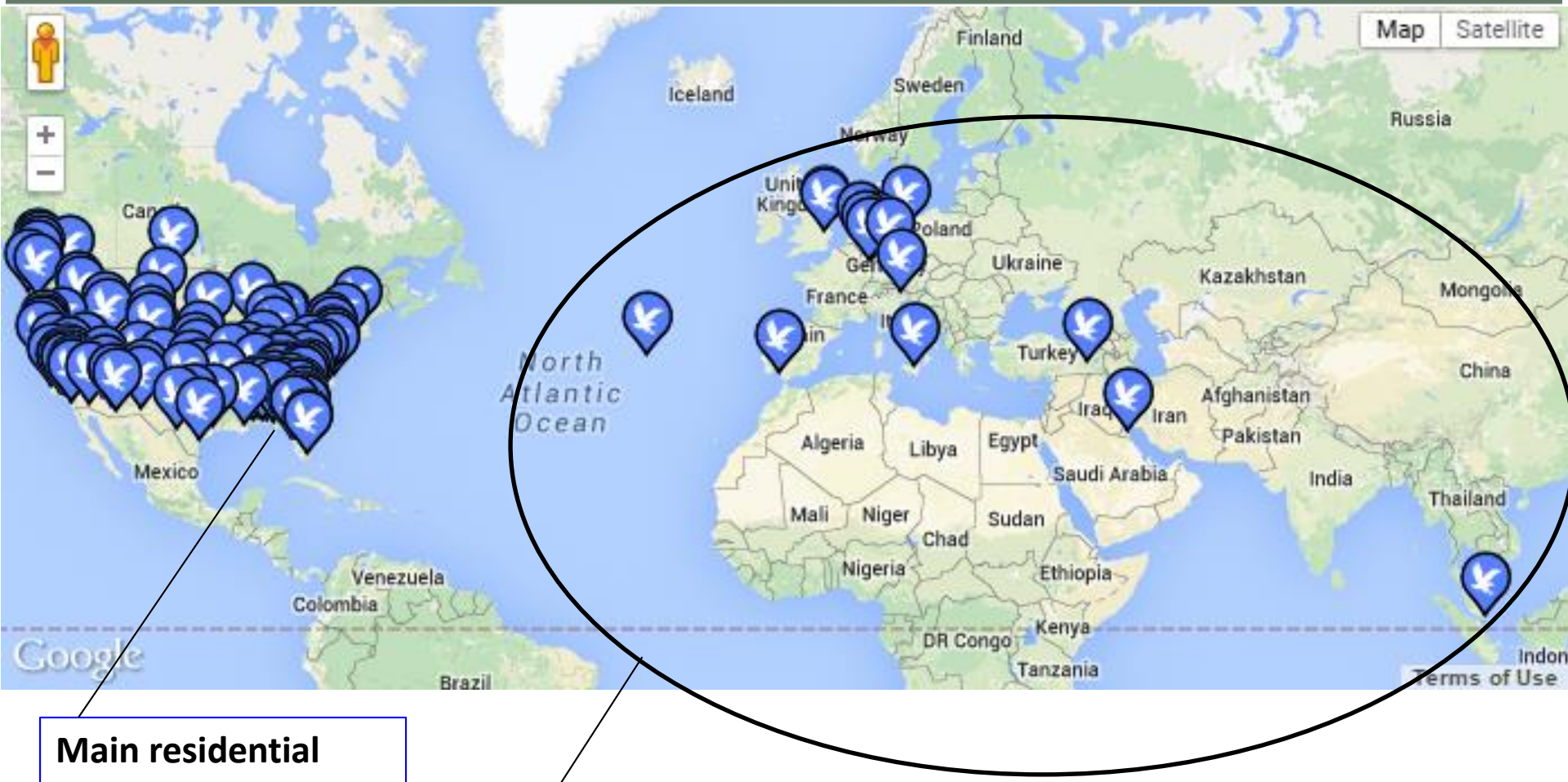
Quality control in the online classrooms - *Is zero plagiarism possible with digital students?*

By
Michael D. Santonino III
Embry-Riddle Aeronautical University, Worldwide
College of Business
Department of Business Administration
Email: santonim@erau.edu

International Conference The Future of Education
Session: E-Learning
Location: Grand Hotel Mediterraneo
Lungarno del Tempio, 44 – Florence – Italy
Room C
11:30 - 13:10
Date: 11 June 2015

EMBRY-RIDDLE
Aeronautical University
FLORIDA | ARIZONA | WORLDWIDE

Where we are located around the world



Main residential campuses:
Daytona Beach, FL
Prescott, AZ

9 countries (United Kingdom, Germany, Italy, Spain, Turkey, Kuwait, Singapore, Portugal, and USA including Hawaii)

EMBRY-RIDDLE
Aeronautical University
FLORIDA | ARIZONA | WORLDWIDE

For Today's presentation, we will:

- Review how technology is transforming online education
- Present a framework for quality control measures in online courses that leads toward zero plagiarism
- Offer recommendations for adopting best practices in online pedagogy of plagiarism

EMBRY-RIDDLE
Aeronautical University
FLORIDA | ARIZONA | WORLDWIDE

Recent trends…..

Over the past few years, universities, colleges, and schools have made a substantial investment into the new learning online management systems aimed at improving the quality of courses with technology innovation tailored toward today's digital student.

How much is being invested into these systems?

Over $40 billion on technology and services in 2014. Expected growth rate of approximately 7% annually for the next five years.

Source: Eduventures Inc.

Viewpoints

"Academia has been either slow to adapt to new media or has imposed the same closed system to its digital delivery via course management systems"

Wankel (2011)

- **Closed System** has little interaction with its environment; it receives very little feedback from the outside.

Viewpoints

"Studies have demonstrated that having access to the Internet does not mean that it is being effectively integrated into the curriculum"
Mistretta (2005); Ramey & Barton (1997); Williams & Kingham (2003); Zhao, Pugh, Sheldon, & Byers (2002)

"Teaching effectively with the Internet has proven to be a challenging task which requires content knowledge, pedagogical content knowledge, and technical knowledge"
Burniske & Monke (2001); Hughes (2005); Wallace, Kupperman, Krajcik, & Soloway (2000).

- **Open System:** continually interacts with its environment.

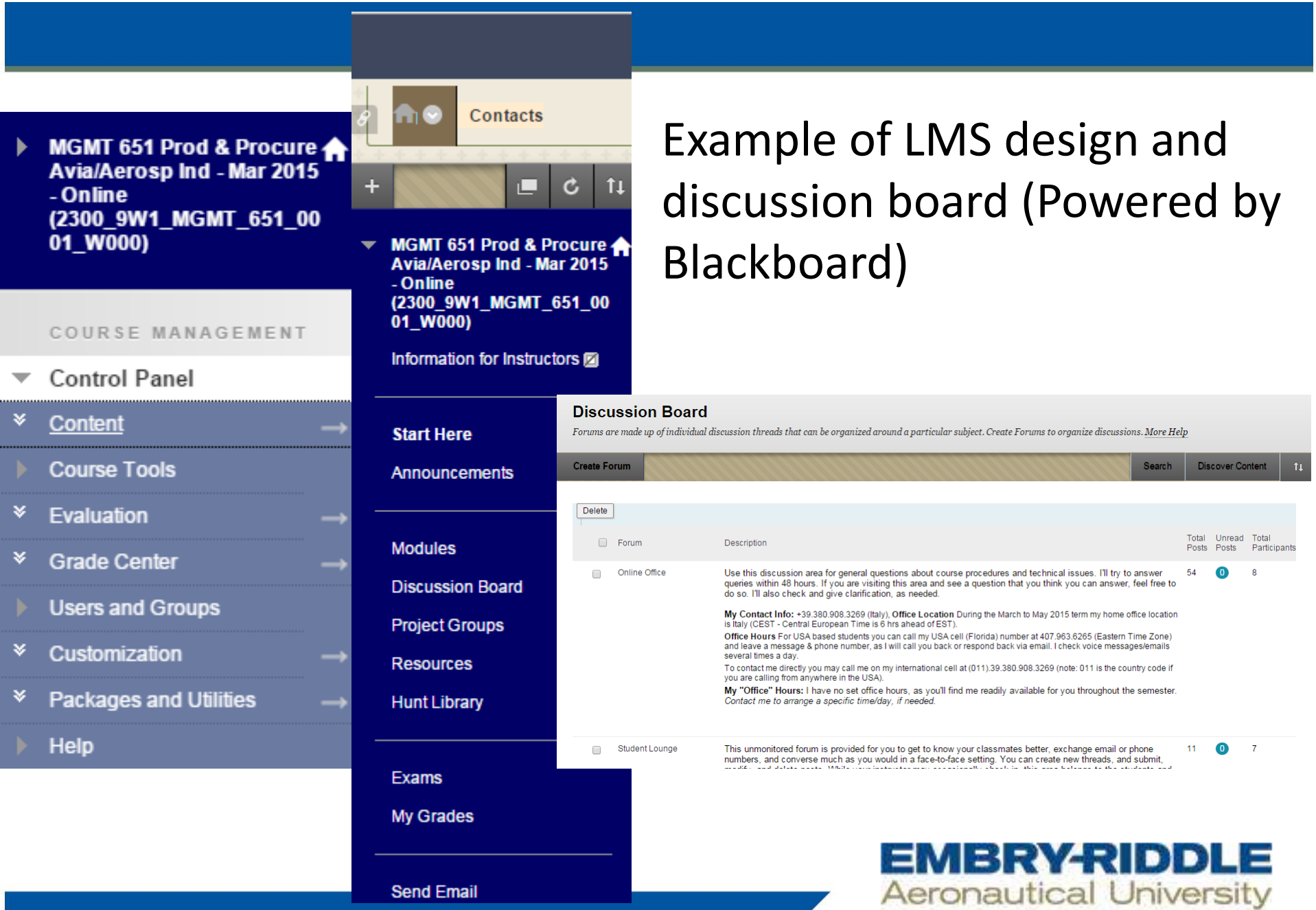
Learning Management Systems (LMS)

Definition: LMS's are technology systems used to provide the structure of the entire learning process for institutions (e.g. content, assessment, management, etc.)

Source: Eduventures, Inc.

EMBRY-RIDDLE Aeronautical University
FLORIDA | ARIZONA | WORLDWIDE

Example of LMS design and discussion board (Powered by Blackboard)



EMBRY-RIDDLE Aeronautical University
FLORIDA | ARIZONA | WORLDWIDE

Example of LMS with embedded video (**Powered by Canvas**)

Introduction

Michael Santonino

Mar 14 at 8:07am

27

Please post some introductory information about yourself by adding a new thread in this forum. Who are you? Where do you live? Your work experience? What do you desire to learn from the course? Tell us something interesting about yourself?

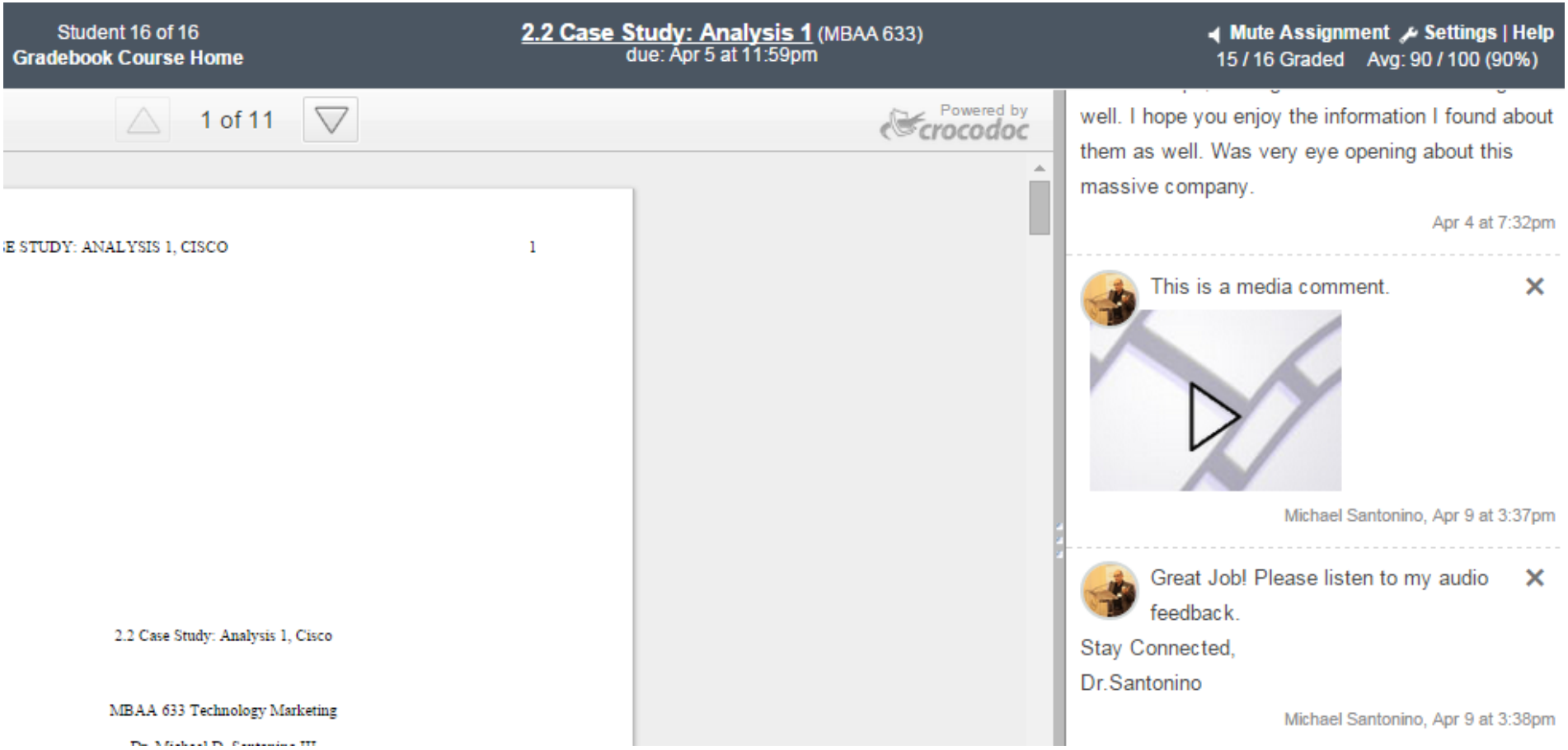
You are welcome and encouraged to post a video introduction *(the record/upload media icon is just to the left of the font size menu in the reply box)*.

Michael Santonino

Mar 14, 2015

EMBRY-RIDDLE
Aeronautical University
FLORIDA | ARIZONA | WORLDWIDE

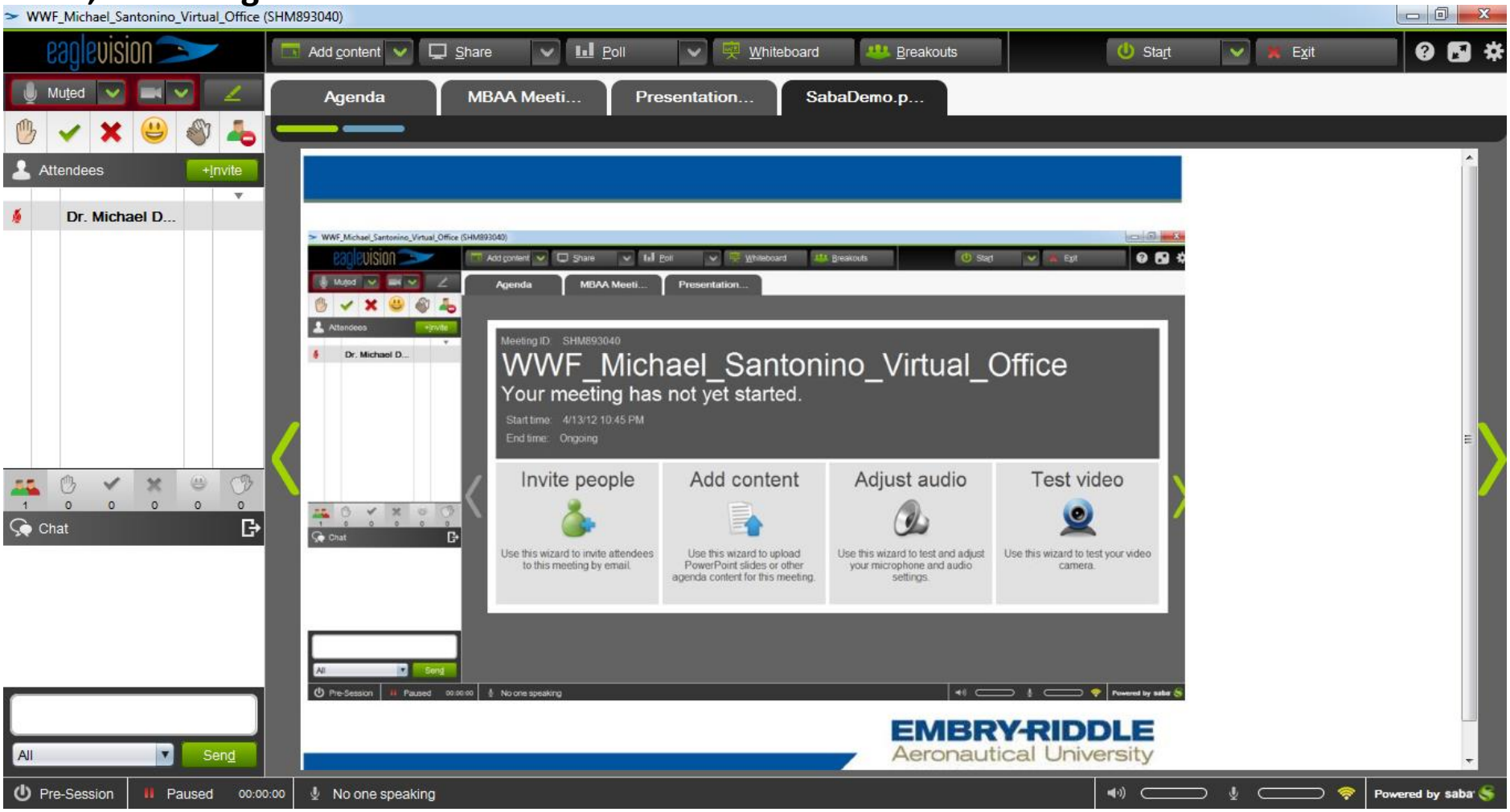
Example of LMS with embedded video (Powered by Canvas)



EMBRY-RIDDLE Aeronautical University
FLORIDA | ARIZONA | WORLDWIDE

Example of LMS Mobile (Powered by Saba)

LMS Mobile works on a wide range of devices, including Apple® iPhone®, iPod touch®, iPad®; and Google Android™ devices.



Example of LMS Mobile (Powered by Saba)

Online Program Managers (OPM)

Definition: OPM's are service providers with system expertise to help online degree programs in the design, enrollment growth, and management of the online environments for institutions.

Source: Eduventures, Inc.

EMBRY-RIDDLE Aeronautical University
FLORIDA | ARIZONA | WORLDWIDE

Other Technology Systems

Online Courses

NovoED
edX
UDACITY
coursera
straighterline

Social Listening Platforms

IntelliBuzz
crimson hexagon
salesforce
Enterprise Hive
Nth-Degree Analytics II, Inc.
ORACLE

Video Platforms

Polycom
cisco
Kaltura
BRICK
mediasite

E-Portfolio Platforms

foliotek
chalk&wire
Desire2Learn
Houghton Mifflin Harcourt
epsilen
parchment
Accredible
Blackboard
INGRAM
VitalSource
EBI MAP-Works
elumen
seelio
ACT
ETS
Pathbrite
CollegeBoard
PEARSON
GRADFLY

Source: Eduventures, Inc.

Aligning technology with pedagogy of plagiarism

Use of technology

- Technology lectures and presentations
- Video
- Video Conference Tools
- Lecture Capture
- Screencast
- Enhanced Podcast
- Online Presentation

Best practices for zero plagiarism

Quality controls for common practice

Wankel [2011] found, students are less inclined to value an instructor's unique expertise if the internet can readily deliver the same content information.

Wankel C., 2011. Educating educators with social media (Cutting-edge technologies in higher education). Emerald Group, UK.

Research showed a common practice among students looking for information on the Internet, which they then copy and paste in its original form (into assignments).

Sànchez, J., A. Salinas, D. Contreras and E. Meyer, 2011, "Does the new digital generation of learners exist? A qualitative study. British Journal of Educational Technology, 42(4):543-556.

The Link Between Technology Use and Practice

Quality control in online classrooms using inspections:

- Quality checks by instructor
- Biometrics
- Analytics

Framework for quality control in online courses

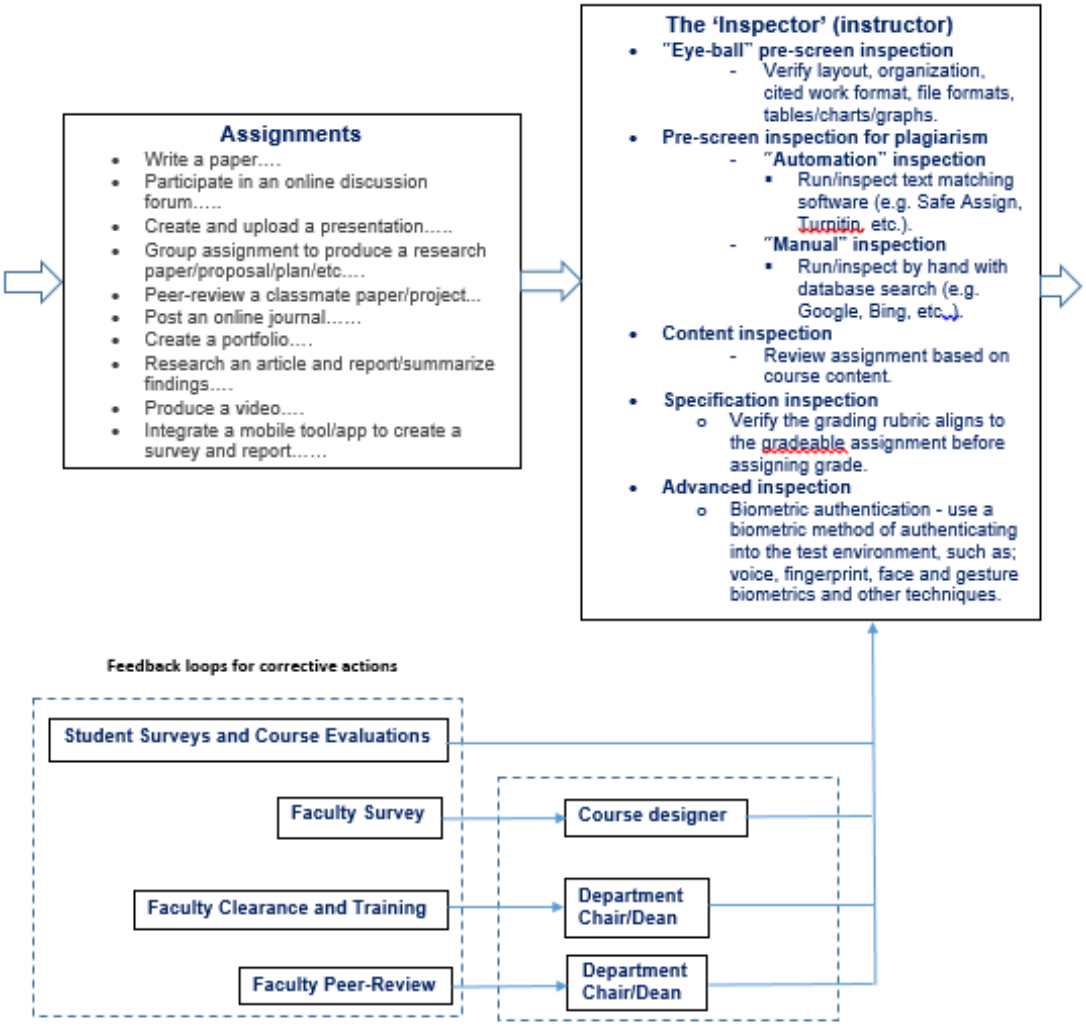


Figure 1.0 Framework for quality control in online courses

Types of assignments

Assignments

- Write a paper….
- Participate in an online discussion forum…..
- Create and upload a presentation…..
- Group assignment to produce a research paper/proposal/plan/etc….
- Peer-review a classmate paper/project…
- Post an online journal……
- Create a portfolio….
- Research an article and report/summarize findings….
- Produce a video….
- Integrate a mobile tool/app to create a survey and report……

Example of grading rubric

Level of achievement with a video assignment

Criteria for assessment	Description
Quality (Assessing the creation of video quality)	Presenter had excellent eye contact to the viewer. Excellent pace of video; able to keep viewers attention and interest; introduced self and topic of material. Provided an excellent summary analysis as well as the ability to relate ideas to course material.
Critical Thinking (Assessing the demonstration of knowledge and comprehension of assigned reading(s) or other required sources related to the discussion)	Presenter created a video that clearly indicates that course material were understood and concepts incorporated with proper use of sources.
Communications (Assessing Use of terminology and Style of Communication)	Presenter used definitions/terminology to communicate the ideas/concepts to the viewer. Able to use the appropriate style, such as; persuasion, voice inflections, etc.

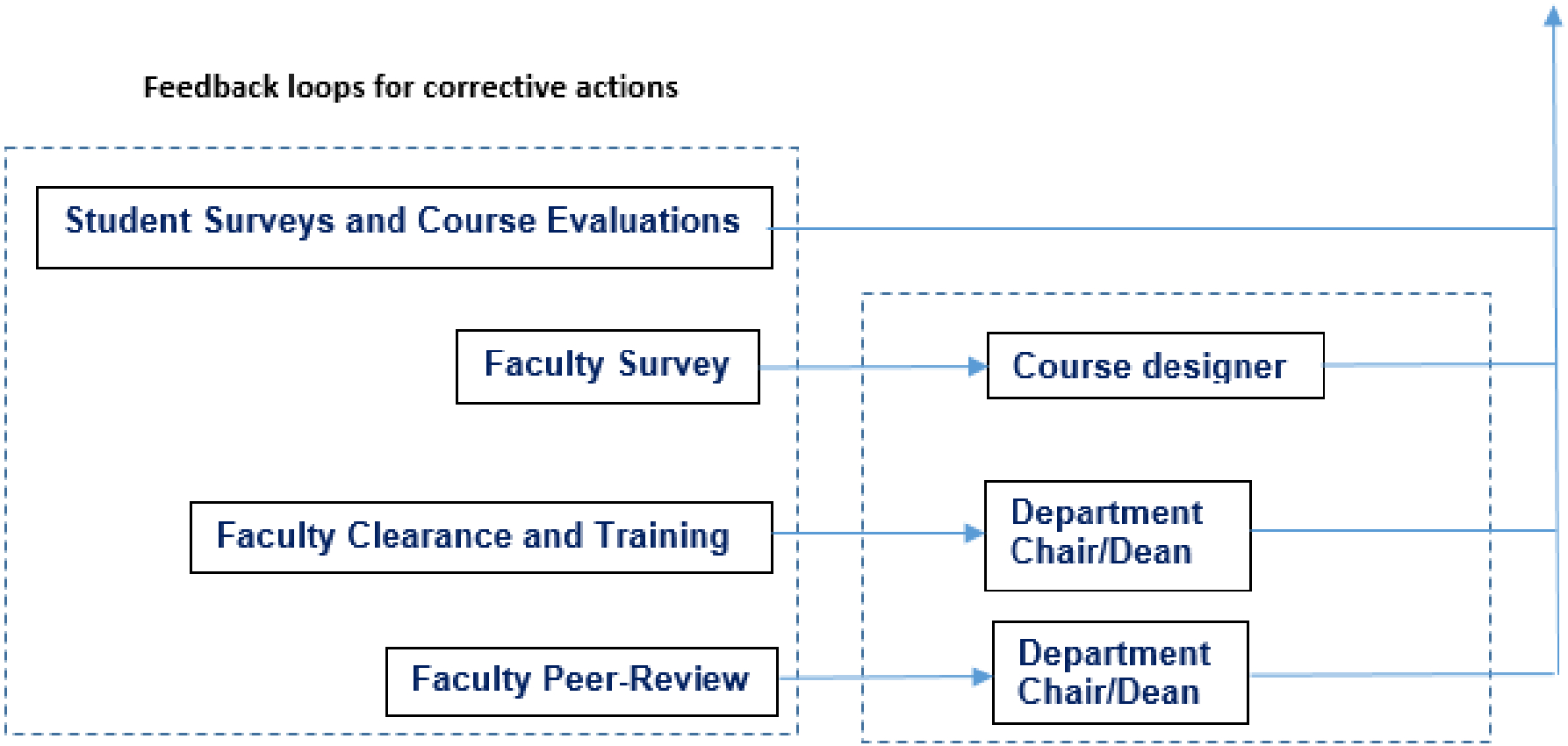
The "**Inspector**"

Courtesy of Google Images

The 'Inspector' (instructor)

- **"Eye-ball" pre-screen inspection**
  - Verify layout, organization, cited work format, file formats, tables/charts/graphs.
- **Pre-screen inspection for plagiarism**
  - **"Automation" inspection**
    - Run/inspect text matching software (e.g. Safe Assign, Turnitin, etc.).
  - **"Manual" inspection**
    - Run/inspect by hand with database search (e.g. Google, Bing, etc.).
- **Content inspection**
  - Review assignment based on course content.
- **Specification inspection**
  - Verify the grading rubric aligns to the gradeable assignment before assigning grade.
- **Advanced inspection**
  - Biometric authentication - use a biometric method of authenticating into the test environment, such as; voice, fingerprint, face and gesture biometrics and other techniques.

Feedback loop for corrective action



Viewpoints

“There is no substitute for positive, authentic, front-line experience with quality online education”

Sibley, K and Whitaker, R. (2015, March 16)

“Educational institutions need to recognize that addressing plagiarism requires a holistic and multi-stakeholder approach which aims to foster a scholarly community based on shared understandings and practices of academic integrity”

Bretag, T. (2013)

Sibley, K and Whitaker, R. (2015, March 16). Engaging Faculty in Online Education. Educausereview. Retrieved March 17, 2015 from http://www.educause.edu/ero/article/engaging-faculty-online-education

Bretag, T. (2013). Challenges in addressing plagiarism in education. PLoS medicine, 10 (12). Retrieved from http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001574

Conclusion/Recommendations

- ✓ Institutions must prepare for the technology changes that is transforming the future of education as it will impact how they engage, recruit, enroll, and instruct students at all stages of the lifecycle, from prospect to alumnus.

- ✓ Instructors must lead and act as the "agents of quality control" for real change to occur in online education for zero plagiarism in this digital world.

- ✓ More research is needed to develop best practices on teaching the subject matter with the Internet (multi-media/social network platforms)

References:

[1] Wankel C., 2011. Educating educators with social media (Cutting-edge technologies in higher education). Emerald Group, UK.
[2] Mistretta, R. (2005). Integrating technology into the mathematics classroom: The role of teacher preparation programs. The Mathematics Educator, 15(1), 18-24.
[3] Ramey, P., & Barton, S. (1997). Emerging technology. In C. Brantley and B. Davis (Eds.), The changing dimensions of business education. National Business Education Association Yearbook: No. 35. (pp. 79-92). Reston, VA: National Business Education Association.
[4] Williams, H. S., & Kingham, M. (2003). Infusion of technology into the curriculum. Journal of Instructional Psychology, 30(3), 178.
[5] Zhao, Y., Pugh, K., Sheldon, S., & Byers, J. L. (2002). Conditions for classroom technology innovations. Teachers College Record, 104(3), 482-515.
[6] Lamb, A. (2006). Building treehouses for learning: Technology in today's classrooms. (4th ed). Emporia, KS: Vision to Action.
[7] Proserpio, L. and D. A. Gioia, 2007, "Teaching the virtual generation". Academy of Management Learning and Education, 6(1): 69-80.
[8] Gaytan, J. (2006). Business education teachers' perceptions of the effect of technology training on instructional practices. The Delta Pi Epsilon Journal, 48(1), 28-42.
[9] Burniske, R. W., & Monke, L. (2001). Breaking down the digital walls: Learning to teach in a post-modem world. Albany: State University of New York Press.
[10] Hughes, J. (2005). The role of teacher knowledge and learning experiences in forming technology-integrated pedagogy. Journal of Technology and Teacher Education, 13(2), 277-302.
[11] Wallace, R. M., Kupperman, J., Krajcik, J., & Soloway, E. (2000). Science on the Web: Students on-line in a sixth-grade classroom. Journal of the Learning Sciences, 9(1), 75-105.
[12] Wallace, R. M. (2004). A framework for understanding teaching with the Internet. American Educational Research Journal, 41(2), 447-488.
[13] Gioia, D. A., & Brass, D. J. 1986. Teaching the T.V. generation: The case for observational learning. Organizational Behavior Teaching Review, 10: 11–18.
[14] Sibley, K and Whitaker, R. (2015, March 16). Engaging Faculty in Online Education. Educausereview. Retrieved March 17, 2015 from http://www.educause.edu/ero/article/engaging-faculty-online-education
[15] Bretag, T. (2013). Challenges in addressing plagiarism in education. PLoS medicine, 10 (12). Retrieved from http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001574
[16] Sànchez, J., A. Salinas, D. Contreras and E. Meyer, 2011, "Does the new digital generation of learners exist? A qualitative study. British Journal of Educational Technology, 42(4): 543-556.