ONLINE CL@SSROOM
IDEAS FOR EFFECTIVE ONLINE INSTRUCTION

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Memorable Interactions: Content, Community and (the lack of) Control

By Lolita Paff

Online discussion has tremendous potential to engage students, develop written communication skills, and promote learning. Unfortunately, discussion boards often fall short, resulting in perfunctory posts and comments and surface treatment of the issues. If discussions, online or otherwise, are to endure and change thinking, they must be notable. Think back to a remarkable or meaningful discussion. What was the topic? The context? How would you characterize the nature of the interaction humorous, serious, spirited, or bordering on out-of-control? Who and how many people were involved? What were your takeaways from the exchange? What did you learn from the experience? Why was this the interaction you thought of first?

In sum, what made the interaction significant? Memorable interaction characteristics can be organized around issues of content, community, and control. Planning online discussion with these features in mind increases the likelihood the interactions will facilitate more learning and leave students with a lasting impression.

Content

Indifference is the bane of noteworthy discussions. If the topic is irrelevant or without meaning, why should participants discuss it? In contrast, memorable interactions explore a topic, theme, or issue that matters. Discourse that advances learning derives from disagreement, a range of perspectives and alternative solutions to an interesting problem or question. Meaningful exchanges often conclude with "agreeing to disagree," producing

Current events, case studies, and what-if scenarios are effective strategies for connecting students to content.

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TIPS FROM THE PROS

Icebreakers, Testimonials Help Set Tone for Online Courses

By Rob Kelly

Icebreakers can help promote the important social component of online learning. Common icebreakers have students share information about themselves with the idea of creating a bit of conversation and perhaps provide fodder for course-related discussions later in the course.

Curt Bonk, professor of instructional systems technology at Indiana University, has gone beyond this traditional approach. "I've gone from that social icebreaker to being a little more course-focused now in having people post their commitments to the course and their expectations within the course," he says. "If they post their commitments and expectations, there's less likelihood they're going to drop, because everybody has read their commitments. They want to save face.

"Everyone wants to save face. When you've posted your commitment [to the course], you've enacted a plan, a strategy

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several explanations, or the realization that no definitive solution exists. Participants in a memorable exchange leave the interaction with fresh ways of thinking or a challenge to rethink their views. Either way, they leave the conversation still thinking.

As they plan for online discussion, instructors should ask themselves and their students:

- Is the topic interesting?
- Is it relevant?

When students don't connect with the topic, or think it's irrelevant, they engage in discussion by "going through the motions," which doesn't create a solid foundation for discourse. Identifying interesting topics may be more challenging in some disciplines than others, particularly the technical or quantitative fields. One way to mitigate this is by seeking feedback about content from students. What do they know already? What would they like to learn about the discipline? Incorporating students' interests and feedback as much as possible will support their genuine interest in the content and the discussion.

Current events, case studies, and what-if scenarios are effective strategies for connecting students to content. Provide opportunities to connect with the content through research combined with personal reflection. Engaging dialogue, evidenced by nested threads that probe issues in depth, are more likely when students are interested in the subject and have strong views about it. "I didn't know that before," "I never thought of it this way," and "I will respond differently in the future," are phrases describing outcomes from memorable interactions. Online, the content may matter even more because people aren't physically together. It's harder to connect with people when you can't hear their tone of voice or see their facial expressions. Because others are not physically present, online discussion will depend more heavily on content and format.

Community

In order for participants to meaningfully contribute when they are interested in the topic, they must believe they have something valuable to say and trust their ideas will be judged fairly. It's crucial to establish a welcoming class climate as soon as the course opens because norms get established quickly. Fritschner (2000) suggests having a discussion about discussion. Asking what participation means, why it's important, and how it relates to learning helps to bridge the distance among students, and between students and professor, by establishing shared definitions of and expectations for interaction.

At the beginning of a course, teacher-led topics and structure are appropriate as students gain familiarity with the subject, the instructor and each other. Engaging learners through interesting discussions that advance learning requires finding the right trigger or asking the right questions. Initially, instructor-led discussions may be helpful. But over the course of a semester, if the teacher always starts and structures the discussion, it's easy for students to fall into a mental rut where posts and responses become perfunctory.

To minimize this risk, online discussion should eventually shift

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A Simple Gamification Solution for Teachers

By John Orlando

Gamification became a hot topic in education when it was discovered that games are ideal learning instruments. We think of students' amazing dexterity in navigating virtual worlds as somehow innate, but in reality they have learned quickly because of fundamental design considerations that can apply to formal education as well.

- One, games provide short-range, achievable goals that lie on the edge of the player's expertise. The player develops expertise immediately and incrementally as he or she works through each new level of the game. Learning itself is a fundamentally enjoyable activity, and by giving the player the continuous feeling of learning, games provide a powerful motivation to continue (Gee).
- Two, they provide immediate feedback on success in reaching those goals. Unlike working on a term paper that is due weeks from when he or she starts working on it, the game player knows success immediately by advancing to a new level.
- Three, games provide failure without consequence. An odd feature of higher education is that student failure is preserved in a poor grade that gets incorporated into the final grade. This makes students risk-adverse and grade-obsessed, the very opposite traits that are needed to learn. By contrast, it does not matter how many times you die on the way to reaching the next level in a game. Once you are at that level, you have achieved full recognition for your accomplishment.
- Four, games tend to have a public leaderboard that creates competition and thus the desire to succeed, whereas achievements in the form of grades are kept confidential. Only your teacher knows that you have succeeded.

Higher education is just now starting to incorporate these gaming principles, mostly through a "badgeification" of learning. Instead of awarding students grades on their assignments, students earn badges for successfully completing tasks, similar to moving up to a new level in a game. There are no grades of achievement for a particular task—there is just recognition of having done it correctly. These badges are then added at the end of the class to determine the final grade.

Sometimes, students are given a choice in the badges they will earn, effectively allowing them to select the learning path they want to take through the class. This borrows elements from adaptive learning, which tests student knowledge and feeds the students the content and tasks that represent what they do not currently know. Again, the principle comes from games, which often allow the players to choose the path they wish to take to make it to the next level. The best of these are designed to provide just the right level of challenge to fall short of inducing frustration that will cause the player to quit the game, and they can even alter the level of challenge according to the player's play.

Badgeification has the virtue of reversing the punitive grading system that is normally adopted by education. As Rob Prince (2015) notes, the game player begins with a score of "0" and then moves up for each new achievement. But higher education does the opposite by subtracting points from the perfect grade of "A" for every error. It would be similar to a video game starting at 1 million points and subtracting points from the players' scores as they moved through. How long would you want to play that game? Our very grading system undermines motivation.

But badgeificaton also has its limits. First and foremost, it is often implemented as just a new way to add up the final grade, and so it does not truly gamify the learning process itself. Students are often doing the same old assignments—writing papers, taking quizzes, etc.—and are just being graded with badges rather than letter grades. They are not learning through games. This induces the same grade obsession that undermines learning by teaching the student that the grade is the point of education, rather than learning itself. Plus, if badges are made public, the leaderboards uncomfortably bump up against FERPA, since students can infer one another's grades from their badges.

Moreover, a badge-based grading system can make it hard for students to tell where they stand in the class. A student who has achieved the fourth badge level in the eighth week of class may not have a good sense of whether that means he or she is doing well or poorly. Does it track toward a "B" or an "A" in the final grade?

Finally, a cafeteria-style system that allows students to choose their own paths can cause the learning experience to lack coherence. Students get pockets of learning that do not have the proper context to make sense to them. This has been one of the major obstacles that have tripped up adaptive learning projects. Sometimes understanding any part of a broad theoretical topic requires a journey through that topic to provide certain types of information in a specific order. Even if you already understand carpentry, you

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Providing Formative Assessment with Concept Checks

By Rob Kelly

Formative assessment is important in any learning environment. In the face-to-face classroom, the instructor can fairly easily gauge student understanding by their facial expressions, the questions they ask, and their responses to questions, and then he or she can provide appropriate feedback and support. Formative assessment in the online classroom needs to be more structured and planned to provide learners with this feedback.

In order to provide formative assessment, Joe Ryan, an instructional designer at Northeastern University Online, incorporates concept checks into each multimedia lesson of each course he helps design. Concept checks are true-false, multiple-choice, and matching questions that occur every five to eight slides (every four or five minutes) throughout each 20-to-22-minute Articulate Storyline lesson.

These concept checks are not quizzes. They're not graded. Rather, they are designed to provide supportive automated feedback based on how a student responds. If a student gets the answer correct, the feedback explains why the answer is correct. If the student gets the answer wrong, the feedback explains why the response is incorrect and offers the student clues as to what the correct answer is. Then the student will have another opportunity to answer the question and receive additional feedback based on that answer.

The feedback can consist of text, hyperlinks, or audio/video, depending on the instructor's preferences.

"The concept check is meant to be a pause, a moment of reflection, and to see if the students have gotten what they need to get along the way," Ryan says.

When working with instructors to develop concept checks, Ryan tells them to focus on concepts within each module that have been particularly challenging to students in the past.

Ryan and his colleagues are still experimenting with the use of concept checks. While these concept checks provide useful feedback to students, their full potential has yet to be realized. Ryan hopes to use analytics to provide instructors with information that can help them improve their courses and provide better support on the concepts students struggle with the most. For example, it would be quite useful to track which concept check questions students typically get right or wrong and how many attempts it takes before they answer the questions correctly.

Ultimately, Ryan sees the use of concept checks as a way to provide adaptive learning. For example, students come to a course with different levels of knowledge on a topic, and if they find the concept checks too easy, they may see them as a hindrance and think the course itself is too easy. "Our dream, as we move forward, is to have a pre-assessment, so we know where each student is ahead of time, so that if a question is too easy, the student will bypass it and be asked questions that dig a little deeper or move on to something else," Ryan says. @

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from teacher-scripted to more student-initiated and student-led topics and formats. To facilitate the transition, Brower (2003) recommends strategies that encourage students to build on and facilitate peers' posts and comments by asking students to pose a completely different question, answer a question posed by another, or build upon a peer's comment. Similarly, Naranjo, Onrubia & Segués (2012) recommend asking students to provide more than a personal reaction by providing them with "models of argumentation that help them to ground their ideas conceptually, using the knowledge that they are learning." (p. 292) They suggest assigning different students to summarize the discussion, then using their summaries to raise questions that extend and deepen the discussion or to launch a follow-up interaction.

Control

Professors can facilitate selection of discussion-provoking topics and engender a favorable class climate. But can they plan for the spontaneous quality of memorable interactions? Unscripted, happenstance, and disorderly describe the lively exchanges most often remembered. Planned spontaneity sounds like an oxymoron. How can a discussion leader plan and make arrangements for interaction that will have a spontaneous, sudden, or impromptu quality? Technically, one can't. But teachers can increase that likelihood by planning sufficiently and then relinquishing some control.

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Strategies for Addressing Grammar in Threaded Discussions

By Randy Laist

Threaded discussions are a crucial part of most online learning models. By composing comments and posting them to a discussion board, students in online classes demonstrate their comprehension of what they are learning; they reflect on how their response to the course content compares with the responses of their peers and, critically, they gain experience articulating their thoughts in writing. Whether or not a particular class includes composition instruction as one of its stated objectives, writing to communicate is part of the "shadow curriculum" that is implicit in any class that requires students to compose posts for a threaded discussion board.

"Of course, in the limited time that instructors have to respond individually to student posts, questions of grammar or style are necessarily subordinated to the curricular needs of the class." At the same time, however, when students make the same mistake repeatedly, or when grammar issues threaten to obscure a student's meaning, an instructor might be said to have a responsibility to address the issue in some way. In my online teaching, I have experimented with a number of different strategies to address grammar errors and other language issues in threaded discussions without detracting from the curricular focus of the course or making students feel singled out.

1. If a student's post contains a number of sentence-level errors, instructors may invite (or require) the student to edit the post. Even better, instructors may require all students to review their posts at the end of the week and edit them before they are officially graded. For posts with multiple errors, instructors may consider including an "error tally" in their responses to alert the students to scan for ways to improve their own grammar. Providing the number of errors found rather than identifying the errors, specifically challenges students to act as their own editors, and it also provides a handy quantitative measure of a student's technical proficiency. Students may be encouraged to keep a running error log in which they track the frequency of specific technical errors they make over the course of the semester.
2. Assign peer editors. If there is a discussion question for the week, ask the students to write a response to the question in their first post of the week, and then to use their second post to respond in the capacity of peer editor to an assigned classmate's original post. Students can provide feedback to their peers regarding content, style, and mechanics. The third post of the week might require each student to respond specifically to the comments offered by their peer editor. This technique allows students to reflect on each other's use of language without singling out any one student, embeds the question of technical accuracy within the more holistic concerns of massaging and presentation, and allows every student to both give and receive grammatical suggestions.
3. Make grammatical lessons a running subtopic each week. While the focus of the discussion post should always be the curricular content of the course, instructors can use their own posts and their announcements to encourage students to pay special attention to, say, commas or sentence fragments as they write their comments for the week. The instructor's announcement might explain, "This week, we're discussing the causes of the Civil War, but I also want us to think specifically about how we use commas in our writing." Announcing a grammatical subtopic allows students to practice avoiding errors related to the subtopic throughout the week, and it also allows the instructor to identify subtopic-related errors in students' posts without unfairly or conspicuously "picking on" them. The instructor's responses to student posts can be primarily about the content of the comments, but they might conclude with brief descriptions of the student's language in terms of the week's grammatical subtopic.
4. Accentuate the positive. Rather than simply identifying grammatical errors in student posts, instructors should go out of their way to comment on particularly graceful turns of phrase or particularly effective sentences in student writing. Emphasis should be placed on praising students who use noticeably eloquent or sophisticated sentence structures to express their responses to the course material. In this way, an online instructor can hit two birds with one stone – reinforcing a student's noteworthy content-based observation while simultaneously drawing students' attention to the manner in which precise language is related to precise thinking.

Randy Laist is an Associate Professor of English at Goodwin College. @

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Planning ensures that learning goals are addressed. Planning allows students to learn process as well as content. But too much control over discussions leaves no room for spontaneity, and spontaneity is what gets students engaged and thinking. Face-to-face discussions often get interesting when they start becoming a bit out of control. People interrupt. New voices jump in. Ideas and responses are bandied about in a haphazard fashion.

To put this into practice online, it may help to view control of the discussion along a continuum from complete control of topic, format, and post/comment rules on one end to a totally open forum on the other. It may be appropriate for lower-level courses to begin at or near the controlled end of the spectrum, focusing on low-risk topics, discussion board mechanics, and developing a positive class climate. But Weaver & Qi (2005) find "the more students perceive the professor as an authority of knowledge, the less likely it is they will participate in class." (p. 586)

Shifting from expert/controller to asking students to assume greater autonomy over discussion topics, formats, and facilitation helps students develop as independent learners while supporting the serendipitous quality of memorable interactions. Control can be relinquished in stages, allowing students to work through basic content to more advanced topics, while getting to know each other and the teacher. Ideally, this transitions to the point where students are responsible for selecting topics, moderating, and even assessing the exchange (Baran & Correia, 2009).

Note that incrementally reducing control does not mean eliminating structure. Sautter (2007) suggests a modular content approach to force integration of concepts, incorporating questions (which can be student-driven) that do not have "known" answers, and allowing sufficient time for discussions to unfold and develop where students "take the lead role in the evolution of a discussion." (p. 124) Structure is important to scaffold learning, and structure is not the same as control.

Of course, empowering students and ceding some authority over online discussion doesn't automatically produce spontaneous interactions. In addition, surrendering some control may be scary for teachers and uncomfortable for students. But learning is messy and memorable interactions are unpredictable. By seeking student input and sharing decision-making, teachers send a powerful message about students' roles and responsibilities in the bumpy process of learning through discussion. Shared control also increases the likelihood the online interactions will become lasting memories.

References

Baran, E. & Correia, A. 2009. Student-led Facilitation Strategies in Online Discussions. *Distance Education*, 30(3): 339-361.

Brower, H. H. 2003. On Emulating Classroom Discussion in a Distance-Delivered OBHR Course: Creating an On-Line Learning Community. *Academy of Management Learning & Education*, 2(1): 22-36.

Fritschner, L. M. 2000. Inside the Undergraduate College Classroom: Faculty and Students Differ on the Meaning of Student Participation. *The Journal of Higher Education*, 71(3): 342-362.

Naranjo, M., Onrubia, J. & Segués, M.T. 2012. Participation and Cognitive Quality Profiles in an Online Discussion Forum. *British Journal of Educational Technology*, 43(2): 282-294.

Sautter, P. 2007. Designing Discussion Activities to Achieve Desired Learning Outcomes: Choices Using Mode of Delivery and Structure. *Journal of Marketing Education*, 29(2): 122-131.

Weaver, R. R. & Qi, J. 2005. Classroom Organization and Participation. *Journal of Higher Education*, 76(5): 570-600.

On Tuesday, April 28, Lolita Paff, Associate Professor of Business Economics at Penn State Berks, will provide a 40 minute online seminar titled "Online Discussion: Practices to Boost Learning & Engagement."

For further information, go to: http://www.magnapubs.com/online-seminars/online-discussion-practices-to-boost-learning-engagement-13401-1.html @

Tips from the Pros

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for success. You've set that goal, that end state."

In addition to getting students to think and interact about why they're in the course, Bonk brings in former students to talk about what they've accomplished in the course. These former students often say things like "Dr. Bonk's class was really hard that first week, but hang around after the first week. It lightens up."

"If you hear from peers—not just instructors—you are more likely to commit and succeed," Bonk says. @

Distributed Proctoring: Lessons from Tufts University

Jennifer Patterson Lorenzetti

One of the most common questions about distance learning is how to ensure academic integrity during exams. After all, students at a distance have ample opportunity to consult unauthorized resources or even engage another person to take an exam for them. The concern over this possibility has grown more acute in recent years, when federal regulations mandating verification of student identity came to the forefront as part of an increased emphasis on quality.

Still, many institutions do not yet have a plan in place for proctoring students in remote locations, says Patrick Connell, Manager of Educational Technology for the Friedman School of Nutrition Science and Policy and Co-chair of the Tufts Distance Learning Consortium at Tufts University.

Some institutions use a *proctoring company*. These companies (Pearson is an example) often offer proctoring centers at which students can take exams under the watchful eye of a human proctor, with video cameras recording behavior as well.

However, these centers add a layer of cost to distance education that may not be desirable to some institutions. Because of concerns like these, Tufts has piloted a program to allow for an in-house approach to proctoring exams for students at a distance. The plan could easily transfer to other institutions.

There are numerous reasons why an institution may opt to construct a DIY remote proctoring system rather than rely on another company to provide the service. In an abstract for a presentation Connell gave at the 2014 Online Learning Consortium International Conference with Tufts colleague Jonelle Lonergan, he posed the following questions:

> *But what if you are working in a small to mid-sized program? What if you don't want to pass on another fee to your online students to have a company monitor exams through a webcam? And what if you want the flexibility to tailor your process to a particular student audience or faculty preference?*

Any of these questions could be the starting point for an institution opting to start its own distributed proctoring system.

Remote proctoring with the onus on the student

Remote proctoring began when Tufts offered its first online undergraduate course in the summer of 2011. An online report on the course explained the proctoring system at the time as follows:

> *For midterm and final exams, students are required to either identify their own proctor or, if they can, come to Tufts where they are provided with a computer lab and proctor at a specified date and time. Students who choose the former option are required to provide [the professor] with the name, contact information and affiliation of their proctor. Acceptable proctors have to be librarians, clergy, employers, or teachers. Students are required to arrange a mutually convenient time with their chosen proctor to take the exam. Tufts provides the proctor with all the necessary information and guidelines needed to administer the exam with Tufts required standard of integrity.*

The current system is largely the same. "We put the onus on the student to locate the proctor," says Connell. Proctors are "mostly someone involved in academia," he says, such as professors, K-12 teachers, or full-time university administrators. While in the initial iteration of the proctoring plan it was acceptable to use other professionals like clergy members, these individuals are no longer accepted as proctors. The proctors have to meet certain standards and verifications before they may serve. For example, they must have a professional email address that reflects their institutional affiliation (so, no Gmail or similar ISP addresses are accepted), and they must be mentioned on their institution's web site.

Proctors are charged with giving both paper-based and online exams. For an online exam, the proctor has a password to access the online exam so that the student can start the test. For a paper-based exam, the proctor takes a scan of the exam answers to have an electronic copy available. After the test, the proctor snail mails the completed exam back to the professor for grading. For both types of exam, the proctor is in charge of checking student ID and filling out verification forms certifying the student's identity.

The plan is easy, scalable, and fits with Tufts' needs.

Considerations for others

"No matter what solution one adopts, [it requires] a coordination of work," says Connell. Part of this coordination is what he calls "scale issues," which require different levels of commitment according to the number of participants.

Part of this commitment is financial. "The more you scale

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might still need that topic covered within the context of overall house design in order to understand how to build a house.

But these problems need not deter faculty from experimenting with gamification in their courses. They are just issues to take into consideration. There are ways around them. One is to separate the gamification element from grades. For instance, my Medical Ethics class uses the same types of written assessments found in most classes, but I apply gamification principles to student discussion of case studies.

After covering the conceptual issues around a particular topic, such as Advance Directives, I give the students a number of real or hypothetical cases related to that topic to discuss. Students are put into groups and must post an analysis of each case, including how they would decide it and why. Students are then required to look at other groups' postings and comment on them.

Here is where the badgeification comes in. Students vote on the best postings, with the votes used to award badges that allow them to move up the leaderboard. Those who receive a certain number of votes from their peers are awarded a badge. These badges are not tied to grades, so there is no problem with making them public. But students are motivated to do a good job anyway by the mere presence of a leaderboard.

I also add to the lighthearted gaming element by coming up with names for the levels that parallel the positions medical students have as they move up in their careers. The levels are Medical Student, Intern, Resident, Attending Physician, Department Head, and Chief of Surgery. Maybe it's a bit hokey, but the added touch of realism seems to be appreciated by students.

When applying this simple badgeification system to your own courses, keep in mind that the activity that is used to earn badges can still be graded, even if the badges themselves are not used to determine the grade. An engineering instructor can have the students develop some sort of design or other practical application of the concepts that the instructor grades just as they normally would. But the instructor can at the same time have students evaluate each other's work and vote on what they like to produce badges or some other achievement. This separates the gamification from grades, while at the same time capturing the elements of games that make them such a powerful learning device.

Consider how you might apply this model to incorporate gamification in your courses.

References

Gee, J. (2003). *What Video Games Have to Teach Us About Learning and Literacy*, New York, Macmillan.

Prince, R. (2015). *It's Not a Class, It's a Story: Gamification of a College Course*, The PASSHE Virtual Conference, Feb. 10.

John Orlando writes, consults, and teaches faculty how to use technology to improve learning. He helped build and direct distance learning programs at the University of Vermont and Norwich University and has written more than 50 articles and delivered more than 60 workshops on teaching with technology. John is the associate director of the Center for Faculty Excellence at Northcentral University, serves on the Online Classroom editorial advisory board, and is the Editor of Online Classroom. @

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[distributed proctoring], the more it's going to cost," Connell says. Tufts "minimize[s] what students need to pay" by absorbing the costs of distributed proctoring. Other institutions may opt to pass along expenses as part of a distance learning fee or as part of tuition.

Distributed proctoring also brings with it some of the same concerns as distance learning. While high-speed internet is nearly universally available in most parts of this country, distance learning has the potential to serve students from many other countries that may not have the robust infrastructure Americans take for granted. Connell also points out that some students come from countries where electric usage is regulated, which can impact online access as well. Connell has come into contact with this type of issue in dealing with Tufts' distance learning students. "We have a fair amount of students from all over the globe," he says.

Connell has some concluding thoughts for institutions hoping to design their own distributed proctoring program. "Start small if possible," he says. He also recommends institutions "off-load work onto a coordinator" who will be in charge of making the distributed proctoring system work seamlessly.

Jennifer Lorenzetti is a writer, speaker, higher education consultant, and the owner of Hilltop Communications @