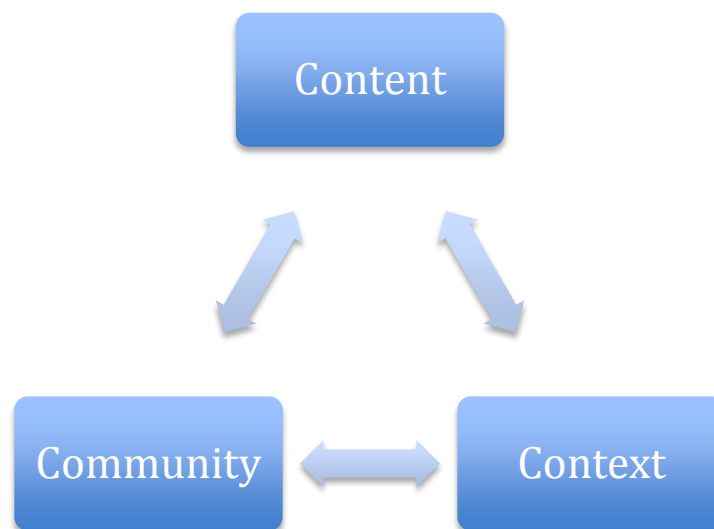# HYBRID COURSES

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This proposal focuses on a framework upon which hybrid classes can be assembled. Hybrid courses include both classroom sessions as well as a large component of on-line material. The framework involves paying close attention to the pedagogic integration of Content, Community and Context so as to achieve an engaging student experience (see. Figure 1). These 3C's are emphasized in the framework because they are critical pedagogic elements required to deliver the rich types of learning experiences (in terms of quality, depth and breadth of experience) we are seeking to achieve via hybrid course formats.

Figure 1
Framework for Developing Hybrid Courses with Online as well as Classroom Sessions

Although there are many technologies that might be used in teaching and delivering a hybrid class, we believe the following may be particularly promising and worthy of further investigation at this point in time (There is no rank ordering implied in the list below):

1. Using a "PDF annotating" application, to correct and comment on student submissions. This provides more engaging feedback on student work than is typically the case.
2. TurnItIn electronic dropboxes provide a place for students to submit their work and have it automatically checked for "pleagurism," with a report of non-original content.
3. The use of YouTube by the authors with a course "channel" and short custom videos made with an iPhone and also camcorder.
4. The use of on-line testing with the Canvas Course Management System. This popular system allows for randomization of questions as well as randomization of answer alternatives, effectively squelching would-be cheating.
5. The use of Doceri for classroom overlays and as a remote control running a MacAir as a "slave" from an iPad so that the instructor can stroll around untethered and engage the students while drawing on the iPad as a "public" tablet that all can see.
6. The use of verbal dictation for commenting on student work.
7. The use of PowerPoint with recorded voice for delivering in-class or on-line segments of lectures. This allows students to start, stop, and rewind the lecture to fully absorb it at their own pace.

8. The use of TED talks to "flip" the classroom by embedding thought questions along the way during the talk. These can be reviewed by the instructor to see who has watched the talk and gotten which questions correct.
9. The use of Khan Academy segments in conjunction with course modules and to inspire the instructor to make similar and more tailored segments; as all of Khan Academy is online at YouTube. In fact, Khan is the biggest YouTube channel.
10. The use of Digital Badges as an alternative "reward" system to go along with normal grades. These can be quite motivating and provide a "game layer" to the class. Digital Badges could be tallied up and the students with the highest numbers might then be eligible for various course-related rewards (ex. extra credit points in participation; a free-pass/exemption on an assignments, etc.).

The 3C framework focuses on the principal pedagogic issues and that the key is to assess how and proposed technology affects them. Too many instructors see their only job as Content delivery, however, it is not content-input that counts but content-throughput. How does any specific technology affect that throughput? Also of critical importance is capitalizing on the class as a Community, with norms, affinity potential, interaction, stature, etc. How can the technology enhance (or not detract) from that important aspect of learning. And finally how does the technology address the Context of each student in appropriate (or inappropriate) ways?

In future research on the 3C framework, we hope other researchers at the conference can validate or extend this rubric for evaluating each of the types of technology we've proposed in the above list as well as adding others. Research may be needed to identify those technologies that are the most relevant "dimensions" to be used to evaluate, compare, and incorporate such technologies. Other less pedagogic considerations are: resources required in terms of: dollar costs for the hardware/software; training time and costs of faculty/ and of students; availability of required support services from each institution's IT and AV service departments, likely or unlikely political support from the school and department level in terms of openly embracing or just tacitly accepting these new teaching formats, etc.