

RICE 2032

BUILDING THE VISION IN DISRUPTIVE TIMES: TEACHING

KEY QUESTIONS MOTIVATING THE CONVERSATION (JAN. 20, 2012):

A combination of disruptive technology, in the form of free, high-quality online courses, and advances in research on how students learn, make it essential that we increase both the value and effectiveness of our teaching and classroom time. Faced with rapidly evolving online credentialing systems, such as MIT's new MITx platform for non-MIT students, the challenge to traditional university courses taught in conventional ways becomes evident. How do we position ourselves and adapt our classrooms and pedagogy? And what are the mechanisms that will provide the necessary impetus for change?

KEY ISSUES IDENTIFIED BY PARTICIPANTS:

We must create a culture that values teaching, pedagogy, and innovation and that focuses more on student learning

1. Currently, teaching is under- or de-valued, with the exception of teaching awards. The institutional message to junior faculty is that only research truly counts. The incentives for improving teaching and innovating in the classroom must be rethought.
 - a. Incorporate teaching prominently into requirements for promotion and tenure
 - b. Grants/fellowships/summer salary/reduced load to undertake major reshaping of pedagogy for a course. Learning new approaches and/or technologies takes *time*. Create competitive "teaching innovation awards" that fund proposals for change.
 - c. Should there be tenured teaching positions, distinct from research positions? Or a promotion track to Senior Lecturer for our outstanding NTT teaching faculty? How do we retain excellent teachers who can now choose to teach independently, online?
 - d. Increase the number and/or cash value of teaching awards, but focus on innovation

2. Create institutional formats for discussing teaching and pedagogy, exchanging ideas, peer coaching and mentoring, visiting others' classrooms (observe, mentor, see what works).
 - a. Department seminars on teaching and pedagogy
 - b. Co-teaching by experienced and younger faculty members
 - c. A teaching center with mentors, coaches, and faculty experienced with the pedagogical changes needed to incorporate technology effectively in teaching would be useful
 - Provide support for different kinds of pedagogies, teaching styles that maximize the talents of individual faculty. Avoid a "one size fits all" approach
 - Avoid over-reliance on charismatic lecturers as mentors - charisma is not a transferable teaching technique
 - Consider offering a wide range of services, as at Northwestern (<http://www.northwestern.edu/searle/>)

3. Think about ways to teach smarter — decrease faculty preparation time while increasing student learning
 - a. SCALE-UP classrooms have big start-up costs, but can potentially lower faculty preparation time in subsequent years

- b. More emphasis on peer-based learning/evaluation techniques; train upperclassmen/majors how to teach younger students, develop student-to-student networks and teams, employ grad students and postdocs as “learning assistants.” The most appropriate strategies will vary by discipline.
 - c. Provide assistance with identifying on-line resources, video clips, images and texts for course materials. Identifying the best among a constantly changing variety of Web resources is enormously time-consuming.
4. Student-centered teaching with an emphasis on active learning is a key goal
- a. Many strategies possible to achieve this. Some, including SCALE-UP, will be more appropriate for some disciplines than others. The SCALE-UP classrooms in the Jones School, for example, are unpopular.
 - b. Strategies that promote student engagement, interaction and active learning include: problem-solving in teams, online forums, clickers, class discussion. Some of these scale better than others. What techniques work best in large classes, and how can we make large classes feel smaller and more personal?
 - c. Appropriate strategies for promoting active, problem-based learning may be most profitably discussed at the department level
 - d. Spatial configuration of classrooms can promote or constrain new pedagogies; podium-centered arrays of fixed seat rows focus attention on the teacher, not the student . We need more flexibly configurable classrooms.
5. Evaluating success
- Current student evaluations are not a useful vehicle for assessing learning.

We must think anew about what we are particularly well-positioned to do at Rice that cannot be done online, and emphasize those approaches.

1. Our small classroom settings must maximize interaction between students and faculty.
2. We must have faculty who can create powerful and effective learning experiences in real-time and face-to-face contexts.
2. Research-active faculty are in a privileged position to help students learn the analytical and critical skills of experts in the discipline. The paradox is that teaching loads are reduced in some departments for faculty with the most active and best-funded research programs .
3. Interdisciplinary approaches to teaching .
4. The quality of our students and the college system ensure that peer learning is an important aspect of a Rice education both in and out of the classroom.

Are more fundamental changes needed?

1. Should we consider alternatives to semester-long courses? For example, one-month block system (students take one, one-month course at a time); provide 2-3 week modules on particular topics or interdisciplinary projects.
2. We need to think about disaggregating some of the things we currently do in order to maintain our emphasis on the highest quality education.
3. We need to innovate the physical environment, focusing on building and campus design that fosters less-formal learning, interaction, collaboration, intellectual culture and community.

**Participants (home departments for
faculty members abbreviated):**

TABLE 1

Provost George McLendon
Administrator: Nicholas Shumway,
Dean of Humanities
Facilitator: Jane Grande-Allen (BIOE)
Faculty: David Alexander (P&A)
Dan Cohan (CEE)
Terry Doody (ENGL)
Kate de Luna (HIST)
Ruth Lopez Turley (SOCl)

TABLE 2

Trustee: Jim Crownover
Administrator: Paula Sanders, Vice
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Facilitator: Tom Killian (P&A)
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Richard Baraniuk (ECE)
Lisa Biswal (CHBE)
Margaret Beier (PSYC)
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TABLE 3

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Administrator: Dan Carson, Dean of
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Facilitator: Barbara Ostdiek (BUSI)
Faculty: Deborah Harter (FREN)
Brendan Hassett (MATH)
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TABLE 4

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TABLE 5

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TABLE 6

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