

Teaching Matters

Center for Teaching Excellence

March 2013 • Vol. 16 No. 2

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Changes at many levels: What will teaching at KU look like five years from now?

In this issue of *Teaching Matters*, we touch on a few challenges facing KU teachers, from the somewhat simple (classroom seating arrangements) to quite complex (developing online courses).

Within the next five years, we can be certain that a KU education will look different than it does today. The new KU Core will change, in varying degrees, the general education experience for all our undergraduate students. What happens in the classroom itself may change, as well. As James Basham, Paul Atchley, and Caroline Bennett discuss in their articles, technology will impact learning, in ways that remain to be seen. KU administrators are strongly supporting the development of hybrid and online courses, and other changes for both graduate and undergraduate education are sure to take place as the University implements the Bold Aspirations plan.

At the meta-level, there are growing concerns about how higher education will address the issues it faces. Several articles published recently focused on “disruption,” “transformational change,” and “quality standards.”

Last fall, at the TIME Summit on

Higher Education, U.S. Secretary of Education Arne Duncan identified three challenges our system faces:

1. The price of college is too high.
2. The college completion rate is too low.
3. There is too little accountability in higher education for improving attainment and achievement.

To help KU meet challenges in documenting learning, CTE is pleased to announce that a new staff member will join our team in April. Ying Xiong will serve the KU community as a Documenting Learning Specialist. Xiong comes to KU from Stony Brook University’s Faculty Center. At KU, Xiong will work with faculty and staff members to develop, implement, and coordinate a comprehensive plan for documentation of learning. She will focus on assisting faculty members and academic units as they identify and evaluate their goals for students’ learning. Please join us in welcoming Ying Xiong to campus.

—J. Eddy

Resource: <http://www.ed.gov/news/speeches/remarks-us-secretary-education-arne-duncan-time-higher-education-summit>.

What is the default setting for learning?

Dan Bernstein, CTE

I teach in Wescoe, and in a majority of sessions my students and I end up rearranging the chairs in the room. Mostly it is a small adjustment, turning into ad hoc groups of two or three at several points during the class to confer or come to some consensus on a topic at issue. Often it is a bigger adjustment, as I want the class to meet in organized learning teams; a group of five or six people will spend the class period working on a specified research and writing assignment. In this case, the group will have already shared preparation and products in its own online site, so their meeting face-to-face is a continuation of the asynchronous exchange they have before each class meeting. The re-arranged class time is made possible by the technology students use outside of class.

This practice intersects with an interesting set of protocols and conventions around classroom seating arrangements. The room itself has a nominal capacity of 48 students, and there is a substantial fixed podium with all the IT gear for the room. The layout of screens and chalkboards (yes, real chalk and green writing boards) makes clear the orientation of gaze expected from those sitting in the chairs. Accordingly, whenever I arrive in the room, the chairs are in neat rows all facing the screens and podium. My students and I do not mind the labor of reorientation into the configurations we use; it's a matter of a minute or so and often the rearrangement is complete before the period is scheduled to start.

Where I tend to deviate from the classroom con-

vention, however, is that I leave the chairs in the team-oriented pattern when we are done. Sometimes students feel they have a responsibility to restore order to the room, but I urge them to head on to their next stop rather than double their chair arranging labor. On some occasions, I have heard complaints from faculty colleagues with whom I share the teaching space, arguing that it is in fact my responsibility to leave the class space

arranged so that the faculty member behind the podium is the center of all attention and presumably the source of all knowledge and wisdom.

When I imagine what I would hope to see at KU five years downstream, my vision includes arriving in class to find it set up for students to be collaborating with each other. The expectation would

be that students have read and processed the content for the day ahead of time, writing with each other about it, making meaning of their knowledge. In the world of adaptive tutorials and vast collections of online knowledge, students can have access to a universe of content in multiple formats. More and more high quality content is available at very low cost. My students and I find it valuable to divide up the searching and reading; we then share and combine what we find, read, and see.

When we get together we spend our time doing what is only available in live, real-time interaction. We synthesize a wide range of evidence, analysis, and opinion. We pose and ponder com-

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Teaching scholar Pat Hutchings to visit campus in April

On April 18 Pat Hutchings, consulting scholar and former vice president of the Carnegie Foundation for the Advancement of Teaching (CFAT), will facilitate a workshop for KU faculty members. Hutchings' talk is titled "Improving Student Learning: The Power (and Limits) of Evidence." The workshop will be held in the Kansas Union's Alderson Auditorium from 3:30 - 4:30 p.m.

Hutchings stated, "This workshop will be an exploration of the various ways evidence can help faculty, individually and collectively, teach better and improve what they do with their students. Evidence is not a magic bullet, so we'll also look at the conditions under which evidence can really be helpful."

To register, email CTE at cte@ku.edu by April 16. After the talk, participants are invited to stay for an informal follow-up with Pat.

Hutchings has written widely on the investigation and documentation of teaching and learning, as well as peer collaboration and review of teaching. Two recent publications include *Ethics of Inquiry: Issues in the Scholarship of Teaching and Learning* (2002) and, co-authored with Mary Taylor Huber, *The Advancement of Learning: Building the Teaching Commons* (2005). She continues to work with CFAT on a range of higher education issues. She was chair of the English department at Alverno College from 1978 to 1987 and a senior staff member at the American Association for Higher Education from 1987-1997.

For more information about Hutchings' visit, contact Judy Eddy at jeddy@ku.edu.



The default setting for learning

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plex problems raised by what we found, and we debate relative merits of the sources and analyses we have offered. Sometimes most helpful, we connect what we are discussing to situations and contexts not explicitly addressed by the sources we have, often in the immediate world of our collective experiences. I am not shy, I still hold forth, offering my synthesis of what I hear and giving structure to the discourse. But I am as likely to lead a plenary discussion from the middle of a learning team as I am from the podium. I use IT tools to give guidance or search for answers to issues raised by the class, but my interruption of team conversations might come while visiting

with a pair of students at the back of the room.

KU is actively reconsidering the physical spaces we use for teaching. Our colleagues in the School of Engineering have undertaken a thorough discussion and debate about priorities in the design of soon to be constructed new teaching facilities, and the learning spaces committee is allocating resources for major reconfiguration of existing classrooms. For my part, it would make me very happy if I thought that in five years someone arriving to teach in a typical Wescoe room would find the chairs in clusters, aimed at each other, and it would take a couple of minutes to line them all up facing the front of the room.

Bring your own devices: We have something to learn

James Basham, Special Education

We are in a time of unprecedented change within how technology has the ability to influence our teaching and learning. In fact, the investment on developing new technology for the education sector has never been greater (Shah, 2012), and new technology has allowed the world to become more connected and engaged (Shirky, 2011). Suddenly, information has become distributed beyond the traditional boundaries of education, and mobile technology such as smart phones and tablets have allowed us to learn anywhere.

No longer must someone attend school or participate in formal learning activities to gain knowledge. For instance, if someone is interested in or needs help in math, he or she can access free math lessons on a laptop, iPad, or mobile phone at Khan Academy (www.khanacademy.org), or use a tool such as Wolfram Alpha (www.wolframalpha.com) to gain new knowledge. The same person, regardless of place, time, and age, can also view or even participate in solving complex mathematical problems with renowned mathematicians, such as Fields Medal recipient Timothy Gowers, on math community blogs (e.g., gowers.wordpress.com). So, whether a student is in Lawrence, Kansas, or Metarfa, Algeria, she or he can engage in lecture, work on a small group project, or video-conference with a professor.

Effective teaching requires a way to meaningfully engage modern learners. Our lessons should consider the purposeful use of tools and strategies for making use of distributed information; this includes the use of mobile technology. So, rather than banning mobile tools, put them to work for you. For instance, start small by using a free service like Poll Everywhere (www.polleverywhere.com) that makes use of phones, tablets, and laptops to poll students to conduct live formative as-

sessments in your class. Consider how students might use the camera on their phones to create a short movie that demonstrates their understanding of content or reflects on a course reading.

When thinking about how to purposefully use mobile technology, you might ask:

- What's the objective of the course, lesson, or learning experience?
- What will the students know, or know what to do, after they complete the experience? How will you know they've met desired outcomes?
- How might instruction leverage students' own mobile technology to help support outcomes?

Then after the learning experience reflect on:

- Were the students fully engaged?
- Did all students achieve the desired outcomes?
- How might you improve upon the learning experience next time?

You'll likely have a bit of trial and error before figuring out what works for you and your class situation. You might even facilitate your students through an activity wherein they design the class, including ways technology is used. Having students help design a course provides them a meta-level for learning content. This activity will also provide you with a way to learn how students would use technology to enable learning. The key is to continue exploring and harnessing technology to support teaching and learning. In the end, think beyond what it means to be today's professor to what it means to be tomorrow's professor.

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Smart phones will not change the future of higher education

Paul Atchley, Psychology

I like technology as much as the next person. I grew up in Silicon Valley. I recall seeing the first Apple computer at the Byte store in San Jose, and my fascination with the small box that I was told “could do anything.” With smaller, more powerful “boxes” in our pocket, and the ability to connect to more information and more people than ever at any moment, some predict education will be transformed. I have doubts based on a knowledge of history and an understanding of the human brain.

History tells us that each new technology brings predictions that everything will change (see educemic.com/2011/04/classroom-technology/ for a great overview). Technology icon and projector patent holder Thomas Edison noted in the 1920’s that “books will soon be obsolete in schools. Scholars will soon be instructed through the eye.” The correspondence school craze around a similar time frame was supposed to change higher education forever by making the work of the best professors accessible to anyone, for a fee. Radio (“schools of the air”) and dozens of channels of educational television were going to make massive amounts of the best of the best lessons available to classrooms around the nation.

I still see books, and a lot of dusty AV rooms with obsolete projectors. Educational television was not as revolutionary as it was supposed to be. The latest entry, the smartphone, claims it will buck the trend and change how students learn. But while history might change its course, we won’t change our minds. By that I mean our brain is still the limiting factor in any technology + edu-

cation equation, and with smart phones, the outcome is not positive.

The smartphone plays into some of the worst aspects of our brain. Our brain is attracted to social information and releases a reward chemical when we disclose personal information. Sustaining attention on one task is difficult, even when we don’t have a portal to infinite information, attractive apps that have nothing to do with the task at hand, and a brain telling us to check Facebook. Deep learning requires focus and our pre-frontal cortex to inhibit all of these distractions,

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but the pre-frontal cortex isn’t even fully wired yet for most college students. We are putting an infinite distraction box in the hands of students and telling them to focus, knowing their own brains are going to betray them.

Our students use smartphones to text while they drive, even though they know it is extremely dangerous. Why would we think they will use a smartphone appropriately in the classroom? Smartphones in the classroom might make a student report enjoying the class more, but if the outcome of interest is learning then smartphones are a net loss. The classroom is one of the last places we can encourage attention. We should not give that away.

Should we or shouldn't we?

Caroline Bennett, CEA Engineering

Check your purse or pocket: I'll bet that you have a cell phone handy. I'll also bet that most of your students have one, too—a fact that most educators are keenly aware of, for better or for worse.

From an educational standpoint—should we be using cell phones as a teaching tool, rather than discouraging their use in the classroom? Surely, there are two sides to this story.

Every one of us has dealt with students surreptitiously (or boldly) texting throughout a class discussion or problem-solving session. In addition to removing that student's attention from the immediacy of the class, it also can have the effect of dragging down the classroom atmosphere. Because of this, cell phones are often discouraged in classes as an implement for evil, and I am somewhat sympathetic to this.

With that said, there are distinct potential pay-offs to letting—nay, encouraging—students to use their mini-pocket-computers-that-also-have-phone-capabilities in class for good. For example, even ordinary cell phones can be used as clickers in class by setting up an account with a polling website such as polleverywhere.com. Students can text responses to polls that the instructor sets up, and the responses can be viewed and displayed in real time. (As one data point, it took this novice less than 30 seconds to set up; and the service is free for groups up to 40.) There are other draws to encouraging cell phones in class—letting students independently explore a topic on smart phones; recording, distributing, or consuming

photos, videos, and sound clips; and delivering materials directly to students in an immediate sense.

But I expect that these pay-offs do have a price. All students will not have cell phones, and others will not have "smart" phones. However, perhaps with students working in small groups, this could be overcome. I wonder whether it is always healthy for students to "Google it" when exploring a question or topic. I also don't believe it

is necessary to use technology just because students have it available—it should serve a real purpose that improves the learning experience. It may be difficult to ensure that students are indeed always on-task and present in the learning experience. And finally, there may be wireless network bandwidth issues for large class sizes.

Nonetheless, I find this potential teaching tool intriguing. Intriguing enough to experiment with it this semester, in an effort to work through some of the potential issues for myself, and gauge whether it does in fact improve my students' learning experiences.

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Online and hybrid course development: A partnership approach

Julie Loats, Center for Online and Distance Learning

The KU Center for Online and Distance Learning, located in 4 Budig Hall, was created as a faculty support resource facilitating the development of online and hybrid courses. Our mission is to provide instructional design expertise and resources paired with online teaching technologies and best practices in course development.

Our partnership with faculty members begins with their desire to transform their course. Whether working toward developing a hybrid course or creating one that is fully online, our work begins with a simple premise—to understand how we can help faculty members help students achieve learning outcomes. By approaching courses from a backward design perspective, we can better define which tools and online approaches are best suited to achieve those outcomes.

This perspective is particularly useful for hybrid courses, since faculty members typically struggle with identifying which parts of a course to put online and which parts to keep face-to-face. Our instructional designers can help faculty members sort through that issue.

In addition to instructional design collaboration, CODL is helping dozens of faculty create online learning modules and produce video content to enhance students' online learning. Our media production staff can save you time by developing the content you need.

It is never too early in the process to get CODL involved. Faculty members who have produced truly exemplary courses are typically working at least a semester in advance.

One example of a recent partnership is with Megan Greene. Greene contacted CODL in the Summer 2012 to develop a new online course, HIST 390: Chinese Business History. Meeting

about weekly with an instructional designer and media specialist in CODL, her course launched in Spring 2013.

Here's how Greene described her experiences: "In August of 2012 I found myself in the very uncomfortable position of being a faculty member who had never seen or interacted with a high quality online course, but who had to put one together by January 2013. If it hadn't been for CODL, I think I would still be struggling with it. CODL has been helpful with everything from course design to educating me in technological features of Blackboard that I had not previously made use of.

"CODL also encouraged me to think about course design using a backward design approach much like the one that we often hear about from CTE. By beginning with course goals and weekly learning objectives, I was able to select readings with greater intentionality, and to design student projects and assessments with a clearer sense of how they would help students reach the goals and objectives I had identified.

"Their staff helped me to identify appropriate online tools, tools that I hope will simultaneously further my learning objectives and be interesting for my students to use. And they've helped me figure out appropriate strategies for converting some of the conventional classroom techniques that I use in a face to face setting to a format that will work for an online class.

"And, finally, they helped me to keep on task and to get things done in a timely way. Building an online class takes a great deal more time and forethought than writing a conventional syllabus, but I feel confident that I've produced an engaging online class that is still intellectually rigorous and has a clear set of learning objectives."

END NOTE

Forecasting the future

In the November/December 2012 issue of *Change* magazine, Lara K. Couturier listed quotes she gathered about the future of higher education. They may provide some perspective as we consider what KU's future may hold:

1929. "It will be necessary eventually [asserted Harold F. Clark of Columbia University] to train only such men as are actually needed in various lines of work.... With this...will come complete free education, even in the higher professional grades.... Dr. Clark declared that the new type of education may abolish unemployment and poverty."
—*Christian Science Monitor*

1942. "We must be prepared to see the American four-year college course ultimately telescoped to three years for all admitted students."
—Walter Jessup, president of the Carnegie Foundation for the Advancement of Teaching

1980. "[By the year 2000, students] will be recruited avidly. Competition for admission will be less. Financial aid will be easier to obtain. The quality of teaching will be better."
—*Chicago Tribune*, reporting on the Carnegie Council on Policy Studies in Higher Education's report *Three Thousand Futures*

1994. "Boards fully expect [technology] to save them lots of money. From the state perspective, there is a tremendous amount of hope and expectation that it will solve our problems."
—James R. Mingle, executive director of the State Higher Education Executive Officers

2012. "In 50 years [predicted Stanford's computer scientist and a founder of Udacity, Sebastian Thrun], there will be only 10 institutions in the world delivering higher education."
—*Wired*

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Teaching Matters is published by the Center for Teaching Excellence. We welcome your comments and suggestions. Editor: Judy Eddy

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