Like all professions, education changes and evolves as new technologies and tools are developed and adapted for use in teaching and learning. In the last decade, with the growth of social media, we have become able to easily create, edit and share videos. Online education has fused with traditional face-to-face instruction in the form of blended learning. We have tools that allow us to conduct instant polls or do crowd-sourcing. Mobile devices give us 24/7 access to information.

Education will doubtless be impacted by these and other changes, and, in fact, it already has been affected. In South Korea, a decision was taken to transition to eBooks, tablets and cloud-based information for K-12 by 2015. The University of Adelaide library has over 100,000 eBooks that students can read using their iPads, and first-year science students will access their science textbook via an iPad. There is even a proposal to use RFID tags, embedded in student ID cards, to take attendance.

It’s safe to say that education is being and will continue to be impacted by technology and ever-changing learning tools. What’s more difficult to predict is what the changes will be and how they will impact the teaching and learning landscape.

“The Horizon Report”, put together annually by the New Media Consortium and EDUCAUSE, looks at technologies that are affecting teaching and learning in higher education. The 2012 edition of the report identifies six key trends in education:

- People expect to be able to work, learn and study whenever and wherever they want.
- Technologies are increasingly cloud-based, and our notions of IT support are becoming more decentralized.
- The world of work is increasingly collaborative, driving changes in the way student projects are structured.
- Resources and relationships that are easily accessible via the Internet challenge us to revisit our roles as educators.
- Education paradigms are shifting to include online learning, hybrid learning and collaborative models.
- There is a new emphasis in the classroom on challenge-based and active learning.

All of these trends are happening at Maryland. Today’s UM students have different expectations with respect to teaching and learning than we had as students, yet many classrooms look and operate in much the same way as they did when we were undergraduates. Traditional approaches and pedagogies certainly have a place in higher education, but we have to ask ourselves if they serve today’s students in the same way that they served us.

Traditional approaches and pedagogies provide effective
mechanisms for the transition of information (teacher to learner), often in the context of passive learning, which may or may not result in deep understanding. But traditional pedagogies should not be used in isolation because success in today’s and tomorrow’s world will require our students to be able to learn, think, create and work in different ways, using different media and approaches.

Three of the 2012 trends speak directly to changes in pedagogies: the increased emphasis on collaborative learning, the need for students to “make sense” of the deluge of information that is available via the Internet, and increased emphasis on student-centered active learning that connects content to real life. The other three trends deal more with how teaching is delivered. Student’s lead busy, complicated lives and increasingly expect that course work should be accessible 24/7 to allow them flexibility. A number of campus-supported technologies allow faculty to accommodate this expectation.

The emergence of cloud-based applications, information and resources addresses the challenge of being able to access information 24/7 on multiple devices. This allows us to productively use time that was once difficult to make good use of -- such as waiting in the dentist’s office, riding the bus, standing in line for tickets, hanging out at Starbucks, etc. With portable, enabled devices, we can search, read, create or access information anytime, anywhere.

Numerous initiatives at Maryland use online, blended and collaborative teaching models (trend five). These include the Provost’s Blended Learning initiative in which 10 courses from various colleges are piloting a blended learning format, online summer and winter term courses, online translational teaching collaborations with UM faculty and an international partner, and other e-learning innovations.

For faculty who want to learn to use technology to address a teaching challenge, change their course or just get a new perspective on teaching, the CTE sponsors the Summer Institutes on Teaching with New(er) Technologies (STI). In the STI, faculty work individually and collaboratively on a teaching or pedagogical issue using technology as a tool. During the academic year STI faculty participate in a year-long learning community that meets several times each semester to discuss challenges, report successes and exchange ideas. In addition to learning about new technologies for enhancing teaching and learning many faculty discover that they rethink how they teach and find rewards in the intellectual challenge of teaching more effectively, efficiently and differently.

The call for applications for the 2012 Summer Institutes on Teaching with New(er) Technologies (May 22-24 and May 29-31) is available on the CTE website.