

Autar Kaw, U.S. Professor of the Year Provides Insight into Online College Courses

By Janet Dawald

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The Council for Advancement and Support of Education (CASE) and the Carnegie Foundation for the Advancement of Teaching jointly sponsor the U.S. Professors of the Year Award Program. In November, they named Autar Kaw, USF professor of mechanical engineering since 1987, as the 2012 U.S. Professor of the Year (doctoral and research universities). He is the first professor in Florida to receive this distinction.

Within the college, Professor Kaw is the “go-to” guy for the latest information about online education and the newest iteration called Massive Open Online Courses (MOOCs). When it comes to teaching, advising and nurturing students, he is a passionate advocate for them. So it is not surprising that the U.S. Professor of the Year would take this topic far beyond internet learning.

“Well, I have to admit, I am taking a MOOC right now,” said Professor Kaw. “I am taking a course in algebra, I just wanted to get the feel of it,” he explains. An engineering professor taking an algebra class? “I know algebra, and I knew I could do the homework in a fairly short period of time,” he laughs. “But I am learning quite a bit about how they do it, what kinds of assessment they give to students, and how they are teaching it, connecting it to videos and things like that. It is a lot of work to create these courses,” he adds, “It is not just somebody doing a video and putting it on the web.”

MOOCs and internet learning are touted as the future vision of education. “We will always need brick and mortar places,” he answers, “but not for the obvious reasons.”

Providing instruction via a website to anybody with an internet connection is not necessarily the opportunity it is made out to be. Kaw explains: “Like any well-off student, I can take this MOOC because I have the luxury of time. What I am learning from my students is that they don’t have this luxury of time.” Many of his students are working one or two jobs, and at the end of the day are concerned with just getting food on the table. “People don’t realize that low-income students have a very high cognitive load on them,” he adds. “They have fewer choices.”

Online classes are often marketed to people working one or two jobs, so they can fit online instruction into their schedules. “There is some merit to being bound by some commitment, some structure where you go to class Mondays Wednesdays and Fridays, especially for low income students. They can take a class

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here or there, but it is very hard for them. Again it is about the choices available." He pauses and reaches into his experience in teaching. "We know that if you are a novice at learning something it is important for direct instruction to take place," he says. "You need personal guidance. Unfortunately, it is these low-income students who need the most guidance. If you are well-off, you go to brick and mortar schools and get the motivation that small classes provide and the valuable one-on-one with the teachers."

He offers an industry example to illustrate this point: "The failure rate for online classes only at the community college level is very high. The student who is directly taking an online class without having taken a traditional

of 30, and only 1 in 25 students at the top 146 selective universities are from the lowest income quartile. "These demographics have radically changed in the past few decades," says Kaw, "But we still use the same old metrics, 4-year and 6-year graduation rates. We need to reach out to these non-traditional students if we want to compete."

"I believe we should be cautious about how MOOCs are used, especially when it comes to money," Kaw warns. "I don't want to see a big chunk of society left behind, and a lot of institutional motivation for these courses is that they are cheap. This does nothing to give less fortunate students the push they need. I am 100 percent for anything that gives students the opportunity to learn something. I am just afraid of the business model, which I fear people are going to adopt."

"You have to look at the people who are taking MOOCs now," Kaw points out. "Over 75 percent already have a college degree, and one-third of them are in a graduate program or have graduate degrees."

Using his own experience in an online algebra class, he adds, "I think that MOOCs are very good for advanced degrees like nursing or an MBA, when you are already an expert in some kind of field. This is very different than teaching an 18-year-old student, he muses. Right now people are not willing to make a distinction between the two."



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in-class college course is much more at risk than the person who first took some traditional classroom courses." In other words, you need to learn how to learn, and that requires classroom experience.

Like any good engineer, he also examines the data. In his acceptance speech for the Professor of the Year, he acknowledges that the metrics of the past are being used to measure the students of today. The National Center for Education Statistics reports that two out of three students are working, and half of those who work do so full-time. One student out of four is over the age

Professor Kaw believes a little of both is the best model. "In my opinion there should be a blend of all things," Professor Kaw responds enthusiastically, "blended classes, both in-class sessions and online portions and personalized learning, starting in the K-12 grades. Let people go at their own pace, and determine what their strengths and weaknesses are. And if brick and mortar places are going to compete against these online educations, they have to provide individualized experiences to students, those soft skills you need to survive."