



## UCLA professors host workshop on open-source projects and education

By [Emily Tice](#)

Aug. 10, 2009 at 8:52 p.m.

Thirty-five teachers from abroad and around the country gathered today at Hedrick Hall to begin a three-day workshop in statistics education.

Provided by UCLA's Statistics Online Computational Resource and funded by a National Science Foundation grant, the workshop aims to help educators in statistics find more interactive, technological ways to incorporate material into their classes.

Ivo Dinov and Nicolas Christou, professors of statistics at UCLA, said they believe that open-source projects such as SOCR are capable of helping educators reach their goals.

Spending several years on SOCR, Dinov and Christou have contributed to the field of statistics education by creating resources for instructors to use in their classes, as well as interactive tools that can be accessed online. Their resources are available online on a Wiki page, which allows other individuals to edit it.

Dinov said that as a result of his efforts and that of many contributors, SOCR contains the largest probability statistics book in the world, one that has been accessed more than 64,000 times.

He added that he believes course materials for students should be provided in a similar manner. Professors should work together to create their own classroom materials tailored to the needs of their particular students, at no cost, in a form that others can critique and contribute to, he said.

"It baffles me how students pay hundreds of dollars for books each quarter," Dinov said.

While Dinov said he realizes that making education open-source would make information more difficult to profit from, he also believes that the quality of education should not be dependent on income.

But while SOCR incurs several costs in creating their own materials, Dinov said that the only business it is part of is in developing new educational content.

Christou said that course management systems like Blackboard and WebCT, which are a compilation of lecture materials, assignments and sometimes quizzes, have been around since he was a university student in the '90s.

"They haven't revolutionized anything," Christou said.

Dinov added that information on PDFs is static and unidirectional, which makes it difficult for students to traverse. SOCR is different because it is interactive.

Students are able to use the applets created by SOCR to observe demonstrations as they unfold and change its parameters. Students learn better when they see a demonstration, Dinov said.

Dinov and Christou said that the SOCR method can be applied to other fields, such as mathematics and biology, and can be used to help students understand the connections between different fields of study. But Dinov said that while the SOCR method is good for teaching technical concepts, it has its shortcomings.

"In the humanities, there is a less rigid quantity of information. It cannot be used where there are potentials for miscommunication," he said.

Dinov added that he realizes that more resources also mean more management, which can be difficult on the Internet.

"We have to give up a little on quality control," Dinov said.

Dinov and Christou said they have doubts about the use of online classes, in part because of the need to control the flow of information, and Dinov said that it is important to not underestimate the role spontaneity plays in the classroom, of which online classes have a limited amount.

"You can't click, click, and learn," Christou said. "SOCR by itself cannot replicate the instructor."

Dinov said that he encourages instructors from all fields to try different technologies.

"Only students are going to benefit," he said.