Logistics

- Meeting: UCOP Online Instruction Pilot Program (UCOP-OIPP)
- Organizers: Dinov, I., Gould, R., de Leeuw, J., Utts, J., Jeske, D.
- Date/Time: Fri/Sat, June 24-25, 2011
- Place: Berkeley Marina Double Tree
- Presenter: Ivo D. Dinov, www.stat.ucla.edu/~dinov

UC-OSI Presentation

- Title: University of California - Online Statistics Instruction: Resources, Approach and Challenges
- Summary: This interactive demonstration will illustrate 3 aspects of the new UC-OSI course:
  - some of the resources we plan to utilize in the design, implementation and validation of the efficacy of the course,
  - the pedagogical techniques we will employ,
  - some of the challenges we anticipate in the development and management of the UC-OSI instructional model.
We will go over a specific classroom utilization example and outline some information and communication technologies (ICTs) we plan to use in online teaching and learning of statistics.

- What is UC-OSI?
  - Goals: increase student access, reduce the costs, and enhance, improve and modernize undergraduate statistics education using available ICTs
  - Curriculum: Develop 15 (week-long) data, concept and tool integrated modules for introductory statistics (instructors, refactor these to meet specific audience needs)
  - Instructional Model: simultaneous synchronous and asynchronous instruction supported by Adobe-Acrobat-like audio/video stream, virtual office hour (VOH) forum, integrated HTML framework (all components, gradebook and course resources)

- UC-OSI components
  - Tools/Applets: Distribution Calculators, Virtual Experiments, Analysis Tools, EDAs
  - Instructional resources: EBook, Collaborative Wikis, web-forum
  - Learning activities: interactive, data-driven and technology-enhanced learning activities
  - Examples: Central Limit Theorem, Hands-on California Ozone Data Activity
  - Data: Diverse public simulated and research-derived datasets for copy-paste utilization
    - Example: Latin Letters Frequency Distribution
  - Dissemination: open-access CC-BY licensed.

- UC-OSI Evaluation and Efficacy (Small-P Eval): We plan to conduct control-based, quasi-experimental and randomized (UC-wide IRB-approved) studies assessing the efficacy of the UC-OSI model. Quantitative and qualitative measures of student performance, resource utilization and instructor feedback will be recorded. Parametric and non-parametric analyses of the data will be employed to analyze cross-sectionally and longitudinally the student performance and perception of the UC-OSI model.

- Challenges:
  - Managing large sections (300-1,500+ students (grading, learning, conflicts, etc.), 10-50 TAs, 1-3 Tech personnel, asynchronous communication monitoring, learning assessment)
  - Managing, servicing and archiving of course digital content (materials, activities, discussions, assignments, audio/video, etc.)
  - Efficient capturing, annotating and integrating lectures, VOH forum and other resources.