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**eCOTS 2012** The First Biennial Electronic Conference On **Teaching Statistics** May 14-18, 2012

Workshops Call for Proposals

Submission successful. Thank you!

**Contact Information:** 

Milo Schield Augsburg College milo@pro-ns.net

Format: Session

Theme: Statistics for the Modern Student

" Big Data Generates Beguiling Coincidences"

Today's data users face a data deluge: data is everywhere in massive amounts. Big data leads to the omni-presence of coincidence which leads people to conclude that there is something more going on than "mere" chance. Educators often see this differently, and ponder how to lead students to a more accurate idea of "expected." This presentation argues that coincidences are more likely because of what is unseen and presents a probabilistic approach to "expected." Spreadsheets are presented that help make the unseen more visible and help students challenge and develop their notion of "expected". These spreadsheets demonstrate coincidence with runs with coins, with linear and non-linear clusters in a two-dimensional grid, and with the Birthday problem. Coincidences are explained mathematically and geographically. Participants will access the ideas and the materials and assess their inclusion in an intro stats course.



If you need to make any changes to this submission, either now or in the future, please email Jean Scott at jscott@causeweb.org.