



Contribution ID: 1

Type: **not specified**

## Addressing statistics and data science educational challenges with simulation platforms

*Wednesday, 15 September 2021 14:00 (20 minutes)*

Computer age statistics, machine learning and, in general, data analytics is having an ubiquitous impact on industry, business and services. This data transformation requires a growing workforce which is up to the job in terms of knowledge, skills and capabilities. The deployment of analytics needs to address organizational needs, invoke proper methods, build on adequate infrastructures and providing the right skills to the right people. The talk will show how embedding simulations in analytic platforms can provide an efficient educational experience to both students, in colleges and universities, and company employees engaged in lifelong learning initiatives. Specifically, we will show how a simulator, such as the ones provided in <https://intelitek.com/>, can be used to learn tools invoked in monitoring, diagnostic, prognostic and prescriptive analytics. We will also emphasize that such upskilling requires a focus on conceptual understanding affecting both the pedagogical approach and the learning assessment tools. The topics covered, from an educational perspective include information quality, data science, industrial statistics, hybrid teaching, simulations and conceptual understanding. Throughout the presentation, the JMP platform ([www.jmp.com](http://www.jmp.com)) will be used to demonstrate the points made in the talk.

### Reference

- Marco Reis & Ron S. Kenett (2017) A structured overview on the use of computational simulators for teaching statistical methods, *Quality Engineering*, 29:4, 730-744.

### Keywords

Statistical Education, Simulations, Conceptual understanding

### Special/invited session

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**Session Classification:** Education & Thinking

**Track Classification:** Education & Thinking