

Addressing statistics and data science educational challenges with simulation platforms

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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 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 provide 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 show how simulators, such as the ones provided by the smart factory and industry 4.0 education suites of Intelitek (<https://intelitek.com/industry-4-0-curriculum>), can be used to learn tools invoked in monitoring, diagnostic, prognostic and prescriptive analytics. We emphasize that upskilling of the workforce requires a focus on conceptual understanding affecting both the pedagogical approach and the learning assessment tools. The topics covered, from an educational perspective, include data science, industrial statistics, hybrid teaching, simulations and conceptual understanding. The JMP platform (www.jmp.com) and Intelitek simulators (<https://intelitek.com>) will be used to demonstrate the points made in the talk.

References

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