

IS Programs Responding to Industry Demands for Data Scientists: A Comparison between 2011 – 2016

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ABSTRACT

The term data scientist has only been in common use since 2008, but in 2016 it is considered one of the top careers in the United States. The purpose of this paper is to explore the growth of data science content areas such as analytics, business intelligence, and big data in AACSB Information Systems (IS) programs between 2011 and 2016. A secondary purpose is to analyze the effect of IS programs' adherence to IS 2010 Model Curriculum Guidelines for undergraduate MIS programs, as well as the impact of IS programs offering an advanced database course in 2011 on data science course offerings in 2016. A majority (60%) of AACSB IS programs added data science-related courses between 2011 and 2016. Results indicate dramatic increases in courses offered in big data analytics (583%), visualization (300%), business data analysis (260%), and business intelligence (236%). ANOVA results also find a significant effect of departments offering advanced database courses in 2011 on new analytics course offerings in 2016. A Chi-Square analysis did not find an effect of IS 2010 Model Curriculum adherence on analytics course offerings in 2016. Implications of our findings for an MIS department's ability to respond to changing needs of the marketplace and its students are discussed.

Keywords: Big data, Data analytics, Visualization, Business intelligence, Model curricula