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Digital Transformation: Implementing 3D Printing Activities into Core Business Classes

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Implementing 3D Printing Activities into Core Business Classes

The business college's new 3D lab, launched in August 2021, has been providing 3D design and 3D printing workshops for core business classes, specifically IS 2200 and IS 3100, to allow students to experiment with additive manufacturing, more commonly known as 3D printing. In the age of digital transformation, it is more important than ever that business school graduates are exposed to these emerging technologies, learn from experimentation, and develop a foundational understanding of these technologies so that they are better prepared to innovate and lead once they have graduated.

The idea of the 3D printing workshops is that a complete beginner - someone who has never seen or heard of 3D printing - is able to learn basic 3D design and 3D printing in a 55 minute in-person or online workshop. We use Tinkercad, a free browser-based 3D design software, and 3DPrinterOS, a cloud-based 3D printing management system, during these workshops. The lab assistants working in the 3D lab have hosted 3D printing workshops for over 2,500 business students, 30 high school students from a local STEM magnet program, and 18 faculty members from the Art department since August 2021 with great success.

We will discuss the basics of 3D design and 3D printing, problems that arose while implementing this 3D printing activity into core business classes at KSU, and how we are solving those problems. We will also discuss what the future of the 3D lab along with its implications.

Keywords: 3D, additive, manufacturing, business, information systems, innovation, emerging, technology, engineering, stem.