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Data Analytics, Power BI and Emerging Technologies in the Accounting Classroom

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Instructional Development Travel Grant 2019
Data Analytics, Power BI and Emerging Technologies in the Accounting Classroom

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Instructional Development Opportunity Attended
(What did I do?)

American Accounting Association

The **American Accounting Association (AAA)** hosted a three-day conference in May 2019 focusing on the impact of emerging technologies and data analytics in the accounting profession and higher education.

Attendees participated in hands-on training and discussions about emerging technologies, received instructional materials to assist in classroom activities, and connected with leading researchers, educators, and professionals.

Sessions attended:

- Data and Analytics: Curriculum Innovation to Meet Employer Needs.

- Data and Analytics for Your Accounting Courses: Ways to Incorporate Data and Analytic Skills into any Accounting Course

- Activities, Resources, and Takeaways from AAA's Intensive Data and Analytics Workshop

- Emerging Issues Forum: Highlights from AAA's Blockchain Technology Conference

- Microsoft's Power BI Workshop

Attendance Objectives

1. Learn new strategies to help our department incorporate data analytical technologies into the undergraduate and graduate programs.

2. Stay current on important emerging technologies like Blockchain that impact the accounting and reporting functions significantly.

3. Learn how to use Microsoft Power BI and how it can be used to support learning outcomes in the accounting classroom.

AACSB Accounting Accreditation Standard A5
(Why did I do it?)

AACSB ACCREDITED Accounting

The Western Michigan University Haworth College of Business accounting degree programs are independently accredited by the **Association to Advance Collegiate Schools of Business (AACSB).**

The **2018 Standards For Accounting Accreditation** charges accredited accounting programs to <u>embrace technology throughout the program</u>, as described in part by Standard A5:

"Consistent with mission, expected outcomes, and supporting strategies, accounting degree programs include learning experiences that develop skills and knowledge related to the integration of information technology in accounting and business. This includes the ability of both faculty and students to adapt to emerging technologies as well as the mastery of current technology."

Guided by the values and principles of the AACSB, the WMU accounting degree programs include learning experiences in the following areas, as stated by Standard A5:

✓ Information systems and business processes include data creation, manipulation/management, security, and storage.

✓ Data analytics include, for example, statistical techniques, clustering, data management, modeling, analysis, text analysis, predictive analytics, learning systems, or visualization.

✓ Develop information technology agility among students and faculty, recognizing the need for continual learning of new skills needed by accounting professionals.

Outcomes Achieved
(What did I learn?)

Technology in the Classroom – Three Approaches

To meet the learning experience requirements described in Standard A5, AACSB accounting accredited programs are generally adopting one of the three following approaches:

- Make no changes to existing courses, however, create at least one new course within the core program designed to provide all of the learning experiences described.

- Make changes to most or all existing core and elective courses to spread the learning experiences across the entire program. Do not create any new courses.

- Make changes to most or all existing core and elective courses as well as creating multiple new courses in the program.

Emergency Technologies – BlockChain

BlockChain is the name given to a new global accounting technology.

BlockChain is gaining speed through the increased use of Bitcoin and other cryptocurrencies.

A BlockChain is blocks or groups of digital transactions that, when recorded in a global digital ledger, are chained together in a specific unalterable sequence.

This unalterable sequencing is what provides the secure structure of BlockChain technology resulting in increased confidence in the authenticity of the data within the digital transaction.

Outcomes Achieved
(What did I learn?)
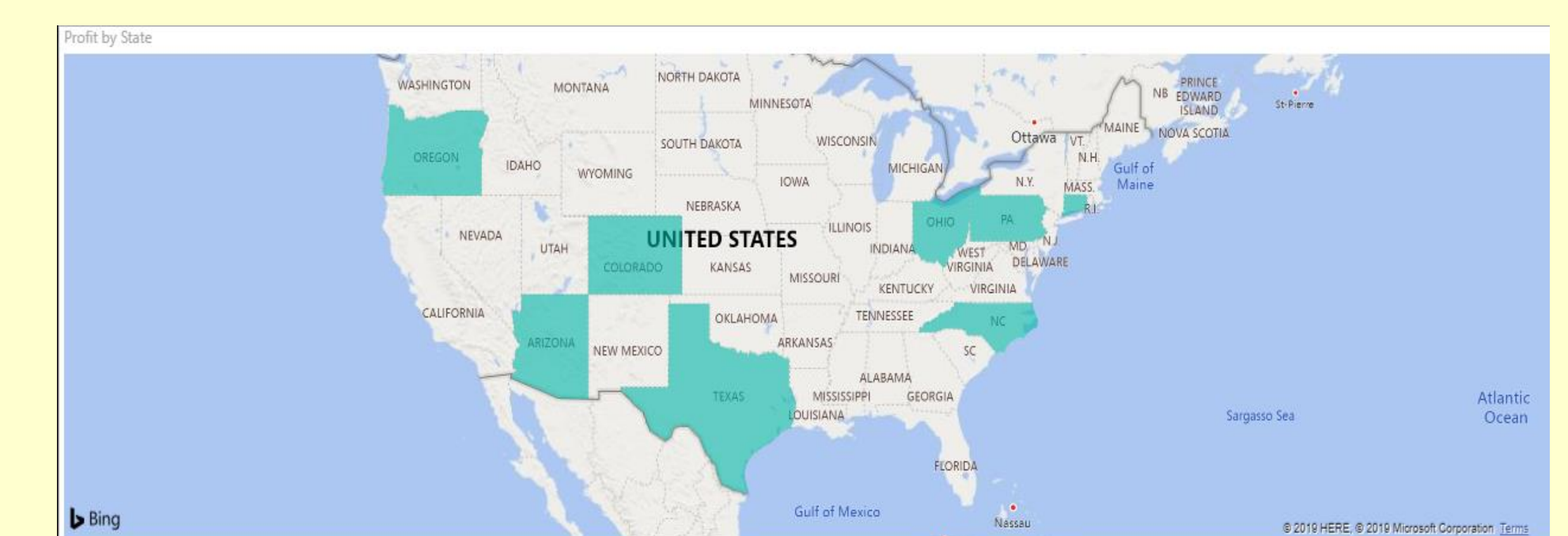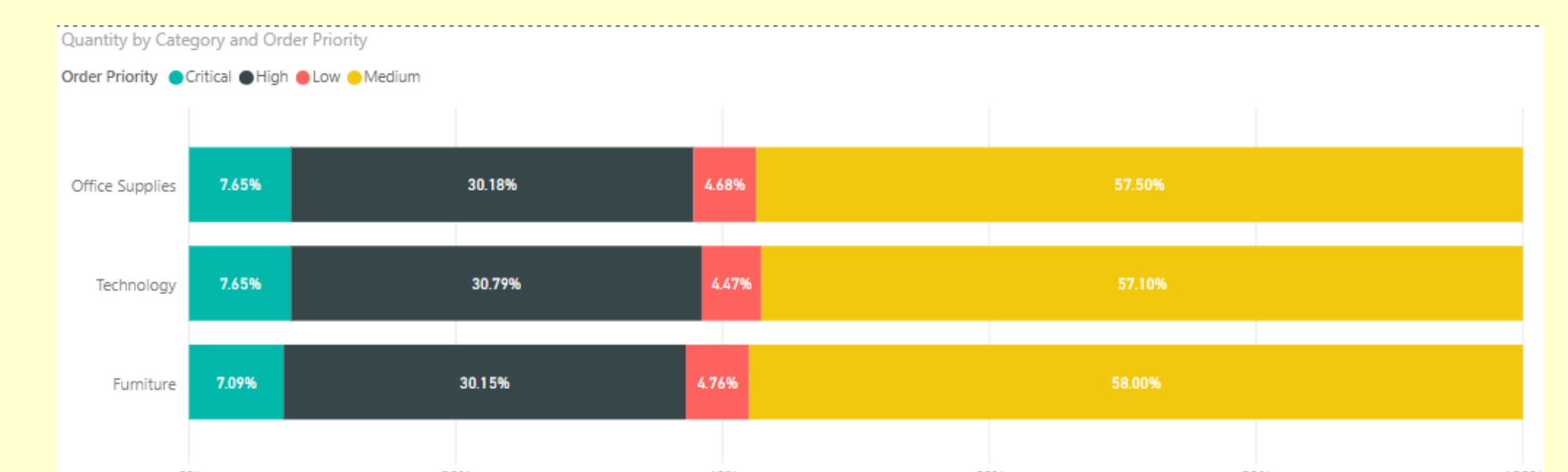
Power BI

Power BI Workshop (4 hours)

Power BI is a business analytics service published in 2014 by Microsoft providing visualizations and business intelligence capabilities that are interactive and easy to use.

Hands-on activities performed in the workshop include:
- Connect data sets to Power BI
- Restructure and clean data
- Define data relationships
- Design interactive dashboards

Instructional materials were also provided by the presenter to assist in classroom activities. Students connect data, define data relationships and create visualizations to answer questions and contribute to informed decision making.

Examples of student work in Power BI answering questions about sales and profits using visualizations:

Contact information

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