Camryn Zavacky

Yiwen Gao

MIS2502

5 December 2021

Big Data: Data & Analytics

Big data is the massive amount of data that is generated by many people and businesses across the planet. These large datasets cannot use simple, traditional tools to process and analyze their data. It takes a large system and process to store and analyze this data. Big data is so vital in society because it has a prominent stance in the technology world today. Big Data exists within so many different platforms and controls the day-to-day activities we pursue. It consists of structured data, semi-structured data, and unstructured data. Big data relates to the material covered in class because of its relation to analytics. One of the key Big Data Analytics tools that is used on datasets that change often is MongoDB. The use of extracting transactional data from a database can help find trends between different variables. Another relation to MIS2502 material is the use of predictive analytics. This is a type of analytics that is used to predict the future trends and expectations of specific associations within a dataset. We used RStudio to do this using support, confidence, and lift values to determine the predictive power of certain associations. Finding confidence between certain associations is one small predictor, but lift can provide a better predictive power towards the accuracy of the association. Lift involves the co-occurrences of confidence and expected confidence and provides users with the ability to predict the occurrence of associations compared to expected chances. This relates to Big Data because large amounts are used to create predictions about big trends within businesses, companies, programs, etc. Overall, Big Data is large amounts of raw data that can be analyzed and processed to make “data-informed” decisions, which is something that we practiced all throughout the Data and Analytics course using RStudio.

References

“Big Data Analytics: What It Is, How It Works, Benefits, and Challenges.” *Tableau*, <https://www.tableau.com/learn/articles/big-data-analytics>.

Simplilearn. “Big Data Analytics: Types, Tools and Applications [Updated].” *Simplilearn.com*, Simplilearn, 17 Nov. 2021, <https://www.simplilearn.com/what-is-big-data-analytics-article>.