JetBlue Flight Delay

Victoria Plange

Christina G. Lerouge

Northeastern University – ALY6110 April 30, 2018

Big Data is essential for organizations to use so they can analyze information that they receive for insights that lead to better decisions and strategic business moves. According to Sas article it says that the importance of big data doesn’t revolve around how much data you have, but what you do with it. You can take data from any source and analyze it to find answers that enable cost and time reductions, new product development and optimized offerings and smart decision making (Big Data What it is and Why it Matters, n.d.).

Big Data can help leverage the airlines industry as a whole because it can determine root causes of failures, issues and defects in real-time as well as generating coupons, leveraging customer insights by mobile technology and much more.

There are many types of analysis that can come out of big data, Graph analytics is a strong analysis that makes complex data more simplified. According to IBM, Graph analytics also known as network analysis, is an interesting new area for analytics workloads (Ferguson, 2016). The article states that graph analysis help marketing managers identify who are the biggest social influencers because they are potential targets for marketing campaigns.

Graph Analytics can be used for a numerous around of cases such as detecting financial crimes, spotting fraud, influencer analysis, performing quality of service for transportation networks, optimizing routes and much more. For example, on U.S. Bureau of Transportation Statistics site in the FAA Data section, I can filter my search options to a specific airline, specific airport, airport arrival or departure, and hone in on a specific month to see a visualization or an .csv file of the raw data of airplane flight delays.

There are different types of graph analysis that are commonly used which include path analysis, connectivity analysis, community analysis and centrality analysis. Path analysis can be used to determine the delays of planes and understanding the different factors that can intervene in the plane being late. According to IBM Watson Analytics, uses a data set obtained from the US Bureau of Transportation Statistics that describe airline arrival and departure delays. Watson Analytics allows you to visualize and see different information that you enter in and aggregates the data to give you what you asked for.

JetBlue takes advantage of big data by weaving it into every business decision that they make. JetBlue has paired up with TIBCO software and according to Tibco, JetBlue has been innovating. JetBlue was the first airline to embrace dot.com in the early 2000’s and electronic ticketing and continues to improve on their smart technology as the years go by. JetBlue’s main objectives revolve around continual innovation and improvements in the customer experience by connecting data, intelligence and personnel.

The director of IT for JetBlue, Andi Azzolina said that “The partnership and collaboration between marketing and IT, and across business units, is really key to our success. “Innovation is key to everything we do. It’s just part of our DNA, part of our culture—whether it’s free Wi-Fi on board, the Mint Cabin experience, or our auto check-in product. It’s something that we talk about every day, so much so that we launched JetBlue Technology Ventures in Silicon Valley to engage with the innovation community and be part of the dialogue. Things are evolving so rapidly, we are always trying to stay on the forefront. Innovation will continue to drive growth for the company, and also create much richer and more meaningful travel experiences (JetBlue Airways and TIBCO, n.d.).

The How, When and Why of graph analytics are very important to JetBlue and from thorough research it seems to be the key to their success. JetBlue needs graph analytics for a number of reasons to help them engage with their customers and meet their needs in a concise and effective manner. Graphs can also be used for JetBlue to expose their weaknesses with their flight delays. Graph analytics can be used primarily for marketing initiatives and business development for the company depending on what they are using the data to determine. Graph analytics can be used through visualization processes to display complex data in a visual manner.

References

JetBlue Airways and TIBCO. (n.d.). Retrieved from https://www.tibco.com/resources/technical-case-study/jetblue-airways-and-tibco

Visualizing network data to illustrate airline delays. (n.d.). Retrieved from https://www.ibm.com/communities/analytics/watson-analytics-blog/visualizing-network-data-to-illustrate-airline-delays/

What is Big Data and why it matters. (n.d.). Retrieved from https://www.sas.com/en\_us/insights/big-data/what-is-big-data.html#dmimportance