Noah Fernandez

Professor Alan Labouseur

CMPT308

27 January 2022

Data vs. Information

Data and information are very important parts of our lives; we're surrounded by them all of the time. We use structured, usually computerized, systems called databases to store data as information. These two words at first seem like they are synonymous, however, there are a few key differences that separate these similar, yet notably different terms. The difference is crucial to understand for database managers to differentiate the meaning of data from the meaning of information within databases. As I stated earlier we are always surrounded by data and information, but data could be considered more widely prevalent because data is defined as facts and figures that don't have any context yet. We can say 42 is data. It is just a number with no context, so until we know what it signifies it's meaningless data. Information is what we call the data once it's been given meaning. We as database managers must give the data context by storing it in organized databases, so it can then have meaning and be used for whatever the purpose may be.

To further explore how data is stored in a database and organized into information I'm going to be using the database that Amazon must have containing its customers as an example. Inside of Amazon's customer database, there is a lot of information about each customer that has signed up for an account on Amazon, however, without a database to give this information structure, it would be nothing but meaningless data. Examples of the data that we may find inside of Amazon's database may be email addresses, names, phone numbers, maybe even credit card

numbers, but all of this information would just be meaningless numbers and letters without the database to organize this data into categories that make it into meaningful information. If the data were to remain unstructured and left as is there would be no way for Amazon to retain details about returning customers. Amazon remembers your email, password, credit card numbers, purchase history, and even if you are subscribed to Amazon Prime all because these are figures that are attached to you in their database and organized as information. Amazon needs this information so its website gives those with an Amazon Prime subscription specific options, past order information can be retained, and also customer's personal information can be stored too. These databases are used all over the world for all different types of companies in the same way.