Week 5 Discussion

5-1. What makes a leader effective?  How should leaders be measured?

5-2. What are some advantages and disadvantages to using the Trait Approach? What should leaders do to ensure that the Trait Approach, when used, is effective? Using the Ten traits of an Executive Leader as a guide, how might the traits help leaders shape organizational performance?

5-3. Which tips for motivating analytics workers resonate the most? What in your experience has worked effectively to retain analysts and build strong analytic teams?

What is semi-supervised learning?

Semi-supervised learning as its name denotes is a combination of supervised and unsupervised machine learning methods. Whereas supervised machine learning algorithms are trained on labeled data unsupervised machine learning algorithms are trained on unlabeled data and must determine feature importance based on inherent patterns in the data. In semi-supervised learning, labeled data helps identify specific data types and their features. The algorithm is then trained on unlabeled data to further define the boundaries of the data types and possibly identify new types that were not included in the labeled data. Semi-supervised methods are advantageous when there is not enough labeled data to produce an accurate model and one does not have the ability or resources to get more.

Provide an example of how you might utilize semi-supervised learning in your work

In the clinical decision-making aspects of healthcare, machine learning methods have proven to be critical in helping doctors diagnose and treat patients.

The Structured Query Language (SQL) has a rich set of commands (SQL DML and DDL commands) that can be used to create tables/indexes and insert/update/delete/read data in the database, yet this language is not considered a general-purpose programming language to carry out certain data preprocessing and preparation tasks.

Illustrate by an example how SQL can be used for data collection yet a general-purpose programming like Python would be needed for further data preprocessing.