User-Friendliness		
The ability to understand the documentation of the software.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	1	Much of the software available is well documented and is straightforward when implementing.
Latent Dirichlet Analysis (LDA)	1	Multiple software applications are available and are not difficult to implement.
Aspect Level Analysis (ALA)	3	Multiple software applications are available and are not difficult to implement.
Support Vector Machines (SVM)	6	Difficult. Most software that provides functions are buried within larger programs such as Tensorflow.
Link Analysis (LA)	5	Easy to do, with or without software.
Naive Bayes Classifier (NB)	3	Software makes the math easier.

Effectiveness		
The ability to identify topics, patterns, etc.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	1	Can identify frequent topics. Can predict the likelihood of a topic being present even if it doesn't appear in a document at all.
Latent Dirichlet Analysis (LDA)	1	Can identify topics across documents and what attributes relate to each topic.
Aspect Level Analysis (ALA)	4	Can identify prevalent aspects of a set of text using its context.
Support Vector Machines (SVM)	3	Can discern the direction of sentiment (i.e. positive vs negative).
Link Analysis (LA)	6	Makes connection between sources subject to the quality of the connections.
Naive Bayes Classifier (NB)	5	Uses machine learning to get increasingly skilled at placing data in categories.

Quantity		
The abundance of software available to use.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	1	Wide variety available. Other university students have developed software. There is also professional and paid software.
Latent Dirichlet Analysis (LDA)	1	Wide variety available. Other university students have developed software. There is also professional and paid software.
Aspect Level Analysis (ALA)	3	Some variety available, others have studied software, there is also professional software and paid software.
Support Vector Machines (SVM)	3	Any software that supports arrays and summation. Few have dedicated premade SVM programs.
Link Analysis (LA)	6	There is a good amount of software that offers this analysis, however you don't need one to conduct LA.
Naive Bayes Classifier (NB)	3	Often easy to implement using machine learning software.

Mathematical Simplicity		
The amount of mathematical background required to conduct the analysis. The difficulty of converting mathematical formulas to code.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	2	Formulas can be found in the literature review (Landauer et al., 1998), the construction may require knowledge of linear algebra and calculus.
Latent Dirichlet Analysis (LDA)	2	Formulas can be found in the literature review, requiring knowledge of probability and calculus (Blei et. al, 2003).
Aspect Level Analysis (ALA)	1	Does not require a lot of mathematical analysis.

Support Vector Machines (SVM)	2	Formulas can be found in attached sources, the construction may require knowledge of linear algebra and calculus.
Link Analysis (LA)	6	Adds links made by using neural networks and Riemann summations.
Naive Bayes Classifier (NB)	2	Relies on one relatively simple mathematical formula (Bayes Theorem).

Data Set Required		
Types of data or datasets that can be input into the methods.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	4	Frequency of Words Matrix
Latent Dirichlet Analysis (LDA)	1	Sentences
Aspect Level Analysis (ALA)	1	Sentences
Support Vector Machines (SVM)	4	Frequency of Words Matrix
Link Analysis (LA)	3	At least two data sources (words, phrases or ratings)
Naive Bayes Classifier (NB)	4	Frequency of Words Matrix

Size of Dataset Required		
The amount of data that can be inputted into the methods.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	1	Better with smaller sets, no minimum or maximum. Only limited by hardware.
Latent Dirichlet Analysis (LDA)	5	Better with smaller sets.
Aspect Level Analysis (ALA)	5	More accurate with larger sets.
Support Vector Machines (SVM)	1	Better with larger sets, no minimum or maximum. Only limited by hardware.
Link Analysis (LA)	4	No size requirement, maximum limited by hardware. Ideal for 3-5 data sources.

Naive Bayes Classifier (NB)	1	More accurate with larger sets, only limited by hardware.

Data Cleansing		
The amount of effort required to format the data before input.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	1	All non-essential words must be parsed out and frequencies must be counted and placed into a matrix.
Latent Dirichlet Analysis (LDA)	1	All non-essential words must be parsed out and frequencies must be counted and placed into a matrix.
Aspect Level Analysis (ALA)	4	Sentiment must be pre-defined for accurate training data.
Support Vector Machines (SVM)	1	All non-essential words must be parsed out and frequencies must be counted and placed into a matrix.
Link Analysis (LA)	5	The user has to classify what they are looking to compare between.
Naive Bayes Classifier (NB)	5	Naive Bayes Classifiers rely on other tools for sanitization.

Time to Implement from Scratch		
The time it takes to implement the method without a third party application.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	4	Lengthy and time consuming.
Latent Dirichlet Analysis (LDA)	3	Timing depends on the amount of data sources and specificity of analysis.
Aspect Level Analysis (ALA)	6	Time consuming to train with a dataset.
Support Vector Machines (SVM)	4	Lengthy and time consuming.
Link Analysis (LA)	1	Timing depends on the amount of data sources and specificity of analysis.

Naive Bayes Classifier (NB)	2	Pretty easy. Plenty of quick tutorials.

Run Time		
The estimated rate of increase in time it takes to run the code depending on the size of the dataset		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	1	Linear Time Complexity
Latent Dirichlet Analysis (LDA)	1	Linear Time Complexity
Aspect Level Analysis (ALA)	1	Linear Time Complexity
Support Vector Machines (SVM)	1	Linear Time Complexity
Link Analysis (LA)	1	Linear Time Complexity
Naive Bayes Classifier (NB)	1	Linear Time Complexity

Returned Dataset		
Types of data or datasets that are output from the methods.		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	1	Topics within the text are identified and output from a dictionary.
Latent Dirichlet Analysis (LDA)	1	Topics and their frequencies are identified, along with key words within each topic.
Aspect Level Analysis (ALA)	3	Classification of sentiment polarity of given sentences.
Support Vector Machines (SVM)	1	Best-Fit matrix of word frequencies.
Link Analysis (LA)	3	Amount of connections between sources and sentiment score of all analyzed sources.
Naive Bayes Classifier (NB)	3	NB returns the category that a given document belongs in.

Accuracy		
The accuracy of making a correct analysis based on external sources. Ex: (how accurate does the method identify positive words as good or negative words as bad)		
Technique	**Rank**	**Explanation**
Latent Semantic Analysis (LSA)	5	Possibly 75% accurate based on third-party testing in a controlled environment, when trained.
Latent Dirichlet Analysis (LDA)	1	High accuracy 90%+ in predicting topics across documents.
Aspect Level Analysis (ALA)	1	Easy to train an algorithm to classify sentiment with 95%+ accuracy.
Support Vector Machines (SVM)	5	Entirely dependent upon training, can be unsupervised, and results will vary greatly.
Link Analysis (LA)	1	High accuracy 90%-100% accurate in predicting trends between analyzed sources.
Naive Bayes Classifier (NB)	4	NB can produce an accuracy upwards of 82%.

The criteria for ranking the data analysis strategies were selected after extensive research into the most influential aspects of a passive data collection system. The analysis strategies were ranked from 1-6 within each criterion, with 1 being the technique that best satisfies said criterion, and 6 being the least applicable.