IVIZ THREE FINAL

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INTRODUCTION AND BACKGROUND

The dataset being used is from the sample dataset in gephi called power grids. The motivation for using this dataset is to better understand how gephi works. It is also used to see what gephi can do and what and be learned from it. It is also good to understand the relationships that can be derived from powergrids. Another reason for using this dataset is because my specific macbook computer has issues opening gephi files from any suggested websites. The second dataset being used is from the web of science database. It is on artificial intelligence and has been compiled into key words with vos viewer. The goal is to learn as much about what artificial intelligence is used for, and how impactful it will be in the future. This is a very relevant topic that will affect millions of people and is based off of data as late as 2018 to the present future.

OBJECTIVES AND GOALS

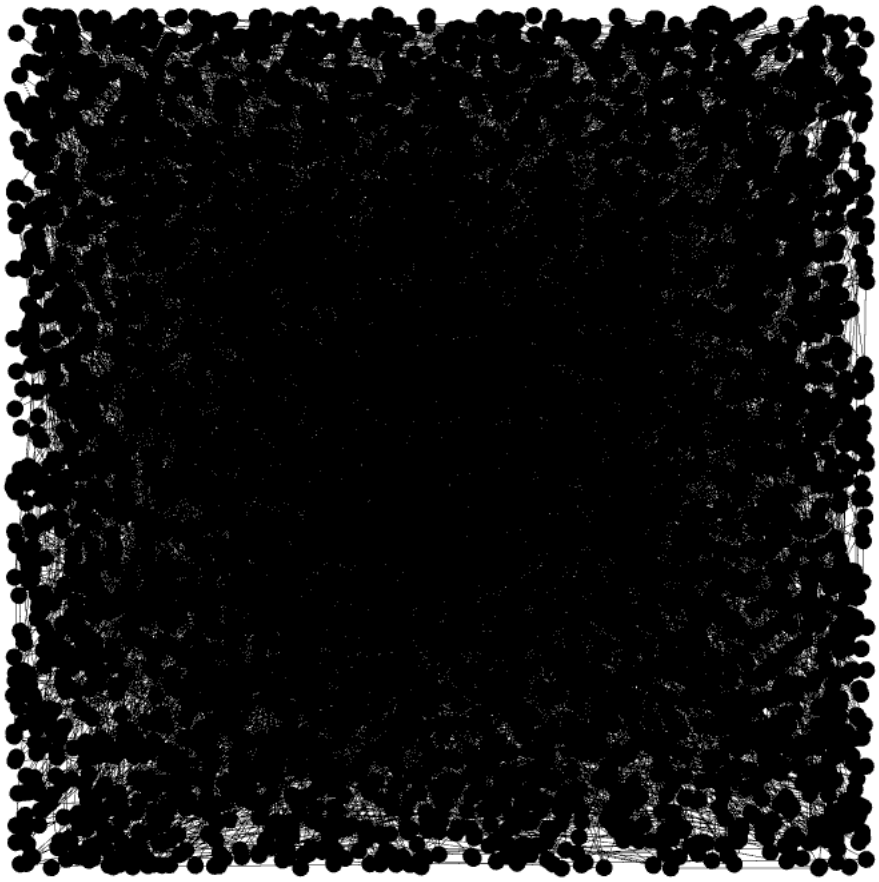
The learning goal is to find out how power grids work. Another goal is to derive what can be understood from the visualization. This will benefit others because it will show people how to work with gephi and how it can be used. Another goal is to find out ways to artificial intelligence can be used to help people. Artificial intelligence has many applications an can be used in ways

that are unconventional to discover many different things. This paper will discuss the things it AI has achieved.

DATASETS

The dataset was found in the sample data on the gephi application called power grids. It is unclear what timeline the dataset is from but there is 4940 nodes of data. That data was used for an example. the dataset being used for vos viewer is from the web of science database there are a total of 34,736 articles on the topic, but the first 2000 are being used to visualize the general information being conveyed. With 188 items and 17 clusters, It was created to document research and advances in AI technology that can prove to be beneficial in the future. There are thousands of authors linked to the different papers in the dataset. The timeline of the data is from 2018 to present.

VISUALIZATION PLAN



PowerGrid visualization

This visualization was chosen because it shows a good example of what a PowerGrid can look like.

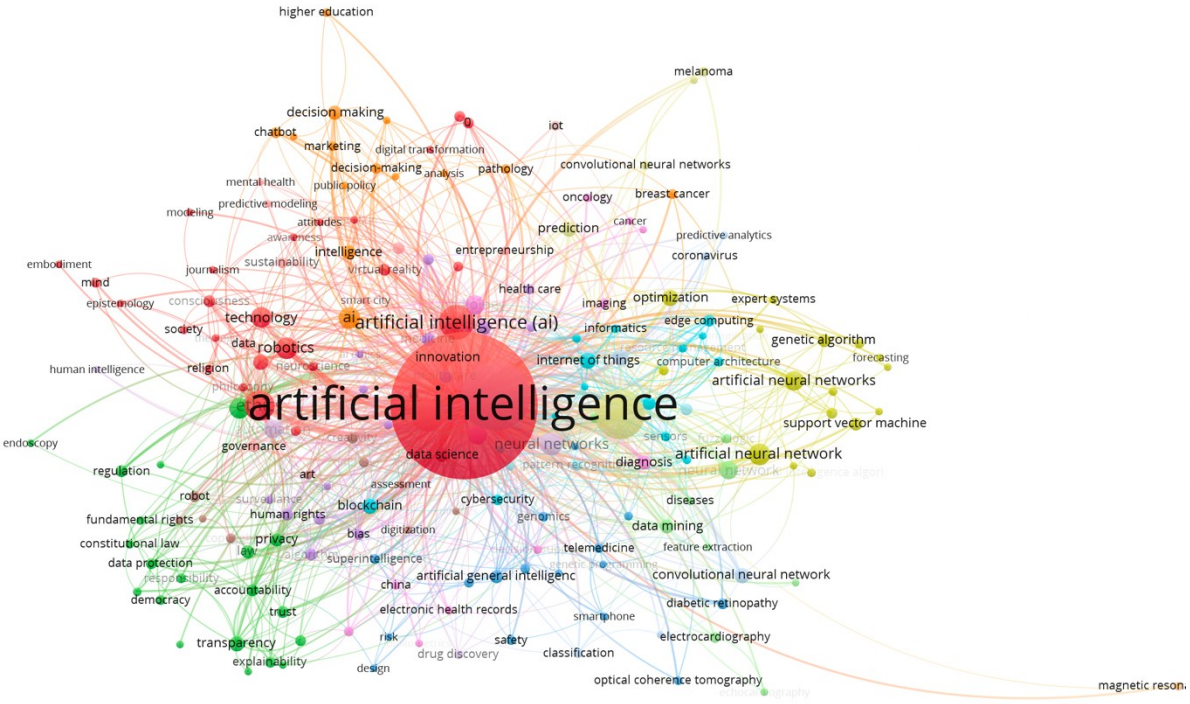
It has 4941 nodes and 6594 edges and is an undirected graph.

1. **Visualization Plan.** Please include the following:

- Students need to make two visualizations from different. One of the visualizations should utilize visualizing techniques for **text-mining/co-word analysis with VOS viewer**. For another visualization, student

must use **Network analysis visualization** methods (refer to **weeks 12 and 13**).

- Students must briefly discuss the rationale behind choosing the visualization types. For instance, why do you think that specific visualization is the best one to visualize your data? The rationale should be based on the lectures and readings.
- Students need to apply principles of good visualizations that have been discussed in the course.
- Students should use color effectively in their visualizations based on the concepts discussed in readings and lectures.
- Students need to provide details about variables so that readers/ audiences can follow the ideas easily.



Artificial intellligence key words

This visualization was chosen because it compiles thousands of articles on artificial intelligence and condenses it into a network of main topics and key uses of AI. It shows information related to the use of robots , and even research linked to creating new drugs. It shows how a main topic is prediction which can be linked to other clusters of information which is all related.

REFRENCES