**Title:** The effect of Creatural Diversity on the Success of a Supernatural Drama

**Hypothesis**: Supernatural dramas with higher creatural diversity are more successful

**Operational Definitions:**

* *Supernatural drama:* Including any non-comedic fictional, supernatural show
* *Creatural diversity:* The number of different types of supernatural creatures featured on the show
* *High creatural diversity:* many types of creatures of different abilities
* *Medium creatural diversity:* 1-5 types of creatures of different abilities
* *Low creatural diversity:* 1-3 types of creatures of relatively equal ability
* *Success:* Ratings on popular websites (e.g., IMDB), number of episodes, number of seasons, number of years running

**Method:**

* Shows
  + High creatural diversity
    - Supernatural
    - Buffy the Vampire Slayer
    - Charmed
    - Merlin
  + Medium creatural diversity
    - Grimm
    - Dr Who
    - True Blood
    - Vampire Diaries
  + Low creatural diversity
    - V
    - Teen Wolf
    - Ghost Whisperer
    - The Walking Dead
* Materials
  + Success will be based off of information collected from IMDB
  + The python Bokeh library will be used to create any graphical visualizations
  + Python and necessary libraries will be used to scrape creatural diversity data from Wikipedia
* Procedure
  + Shows were chosen if they were a supernatural drama featuring several kinds of creatures. Shows were omitted if they emphasized superheroes/superpowers over creatural diversity
  + Shows will be divided into three categories based on degree of creatural diversity (high, medium, low)
  + Python will be used to scrape creatural diversity information from Wikipedia
  + SQL will be used to store a preliminary database holding information related to the success of each show
  + Visualizations will be created to aid in the following analysis
  + An analysis will be conducted on the compiled information to determine if there is a correlation between creatural diversity and show success

**Table Headers:**

Shows Table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **title** | **imdb\_rating** | **num\_ratings** | **num\_episodes** | **num\_seasons** |
| … | … | … | … | … |

Creatures Table:

|  |  |  |  |
| --- | --- | --- | --- |
| **show\_name** | **creature\_cat** | **creature\_name** | **season\_num** |
| … | … | … | … |

**Data Cleaning Process:**

* Charmed: whitelighters to angels
* Buffy: robots and magical creations to artificial beings
* Witches/Warlocks generally refer to people who practice magic

**Analysis**

* A higher level of creatural diversity increases the mean rating with weight in movies but seems to have little effect in shows
* A higher level of creatural diversity increases the number ratings in movies but seems to have little effect in shows
  + Perhaps people are more likely to rate movies than shows
* The mean pure imdb rating for both shows and movies is around 7
* Shows with a higher level of creatural diversity tend to have more episodes
* Shows with a higher level of creatural diversity tend to have more seasons
* Both shows and movies that have witches/warlocks/wizards have higher ratings with weight than those that don’t
* Movies without vampires have notably higher ratings than those with, this difference is not as apparent in television
* Shows with werewolves have higher ratings than those without, this difference is not as apparent in movies
* Ghosts do not seem to have a slight effect on increasing ratings with weight in both shows or movies
* Both shows and movies that have the undead have higher ratings with weight than those that don’t
* Shows without aliens fair better than those with and the opposite is true of movies
* Movies with hybrids have significantly higher ratings with weight than those without, there is only a slight effect in television
* Do all of the movies have immortals?
* Do all of the movies have enhanced humans?
* Movies with animalistic creatures have higher ratings with weight than those without, it has little effect on shows
* Are there movies with dieties, shows with dieties tend to fair better
* Are there movies with artitficial creatures, shows without them fair better
* Are there movies with Gods, shows with them fair better
* Movies that have dragons have higher ratings with weight, there is no effect on shows
* Movies without fairies do much better than those with, there is little effect on shows
* Are there movies with shapeshifters, shows without them fair better
* Shows with ogres do better, movies without them do better
* Movies without giants do much better, there is little effect on shows
* Are there shows with gnomes, movies without gnomes do better
* Movies with elves do much better, shows without do better
* Shows without nymphs do better, there is little effect on movies
* Movies with dwarves do better, there is no effect on shows
* Cycoplses seem to have no effect on ratings
* Movies with goblins do better than those without, shows without goblins do better with
* Are there shows with hobbits, movies with hobbits do better than those without
* Movies with trolls do better than those without, it has little effect on shows

**Visualization**

* Ranking viz of different creatures
  + When clicked it opens up the relevant graph and information

**To Dos**

* Narnia, Enchanted & Ella Enchanted is not in animalistic creatures
* Consider Enchanted for enhanced humans