Online Media Framing of Biofuels
Exploring Negative Framing of Biofuels and Implications for Public Perception

Background
As the search for sustainable and renewable energy continues, positive and negative effects of utilizing different energy sources may emerge. The benefits or repercussions of implementing different energy sources will be the deciding factor that leads to whether certain energy sources will be adopted for use into society. Society will decide whether to adopt biofuels based on how they are framed and its media effects. “Framing” creates a perception toward a phrase or words. “Media effects” is how the media affects the general public. Thus how the media sources frame biofuels is important because it may cause a media effect which has an influence on public opinion.

Purpose
The purpose of this capstone project is to explore how biofuels are portrayed negatively by different media entities. This is significant because it helps us understand how biofuels are framed and how the public might perceive them. What we may conclude from this research is that the public has major areas of concern toward biofuels.

The key question I examined was how does the New York Times frame the negative effects of biofuels. Specifically, I was interested in what frequency different negative themes occur, and what the differences in intensity of negative themes might be. In addition, I was also interested in differences between editorials and straight news articles.

Methodology
Data used in this analysis include online news articles regarding biofuels. Data was collected through purposeful sampling in Google until saturation of major themes was reached. Data was considered saturated when no new themes could be found. The data was analyzed using a qualitative computer assisted software called NVivo 9.

Specific lines of text regarding opinions about biofuels and renewable energy were categorized inductively and grouped together into themes. After the initial categorizing of the individual statements by theme, a complete manual check was conducted to ensure there were no errors. The manual check was for categorization reliability, a cluster analysis was then completed using NVivo.

Two types of cluster analyses were conducted: clustering similar words by the source type (news article type) and clustering similar words by category. Source type is where the news sources were clustered based on the type of source (opinion or straight news). Words by category is where selected statements toward biofuels are clustered based on their categorized as in Figure 3.

Results
The results of the cluster analysis suggest that straight news from the New York Times focused more toward the threat and destructiveness of biofuels. The editorials and opinion articles published by the New York Times had more equal areas of concern compared to the straight news. Straight news is news articles directly published by writers from the representing organization. Opinion and editorials are from readers, but it is still significant because the organization chose to publish them. Figure 1 represents the themes that would arise in the New York Times articles. Within each bracket, as shown in Figure 2, if any sources showed negative connotations toward biofuels they would be recorded under the following:

- Expensive
- A threat
- Destructive
- Not what we need

Conclusion
In conclusion, the results have shown that biofuel’s negative effects are mostly portrayed to be:
1. A threat
2. Destructive
3. Not what we need
4. Expensive

The straight news from the New York Times emphasizes the threat and destructiveness of biofuels the most. The editorials and opinion publications that the New York Times also publishes emphasizes that biofuels are not what we need, a threat, and destructive more equally.

This is important because while utilizing biofuels have both benefits and disadvantages, there are barriers that need to be overcome before it can be fully implemented. Understanding the general public’s strongest resistance towards the negative effects allows us to pinpoint where the focus needs to be for the general public to accept biofuels and allow for its transition.

Acknowledgements
Dr. Stanley Asah for acting as the advisor for my capstone project.
Miku Lenentine for guidance on my capstone project.

Picture Credits
http://www.energydigital.com/