“Media Coverage of Drought in the Southwest”
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Research Question:
Did the local newspaper coverage of drought change over the 2010-2014 (drought)?

Data sources:
Newspapers for this were found through library newspaper databases, 567 articles from three city newspapers (Altus OK, Amarillo TX, and Austin TX), were compiled to create the corpus used. Terms relating to drought were used as the search filters, e.g., drought, irrigation, ban, lake, mitigation, wildfire.

Literature Review:
Journalists and editors are important in the framing of an event for the public. Research demonstrates that discourses can be led to positive behavior-related to specific hazards issues, such as climate change, as well as an undercut support for needed developments, but they also can reveal patterns of complexities within droughts. 4, 5, 6

Methods of text visualization:
Word clouds were generated using Voyant Tools. KH Coder, a text analysis program, was used to visualize the data with Co-occurrence networks, which are created by seeing the possible interconnections between the terms. Proper nouns are eliminated from the visualization of each city's network.

Caveats:
Word clouds are good for showing which words occur the most in the text, but not why certain words are larger. ‘Said’ is the commonly used word when quoting, so does not add anything truly useful to the analysis. Co-occurrence networks display minimized spanning distance between terms in two-dimensional space with the clusters being the terms inside a certain distance. This merely indicates where a researcher should perform closer reading of the corpus to make for solid interpretation of the patterns and does not offer explanation of the themes.

Figure 1. Map of cities with top 25 words from papers of that city

Figure 2. Combined data for entire corpus (Altus, Amarillo and Austin):

Figure 3. Amarillo data visualization:

Figure 4. Altus data visualization:

Figure 5. Austin data visualization:

Results:
All three cities display changes in newspaper coverage. At the outset of the drought all three papers covered the impact of the drought on farmers. This makes sense as they are usually the first people directly impacted by drought conditions economically. Altus is the smallest and most rural of the cities in the corpus which offers the an explanation for the continued presence of farming terms in 2014, which Austin and Altus weakly display. The rise of conservation in the Amarillo and Austin subsets of the corpus show that this became and public issue in terms of the impact on individuals and industries. Variations occur, but this work demonstrates shifts in drought discourse from the beginning of end of such an event. This project shows that text analysis can shed light on cycles of newspapers’ drought discourse shifts as policy makers address drought impacts and public opinion changes about options for mitigation.

References
4Cideli, J. “Content Clouds as Exploratory Qualitative Data Analysis.” Area 42.4 (2010): 514-523.