**Other useful sentiment software in R**

For a useful review, see Naldi, Maurizio: A review of sentiment computation methods with R packages. January 2019. <https://arxiv.org/pdf/1901.08319.pdf>

A basic task in sentiment analysis is classifying the polarity of a given text at the document, sentence, or feature (word) level. It helps us determine whether the expressed opinion in a document, a sentence, or word is positive, negative, or neutral. Most of the mentioned packages evaluate sentiment at the sentence level.

* The R package **sentimentr**

Description: Calculates text polarity sentiment at the sentence level and optionally aggregates sentiment by rows or grouping variable(s).

Below, a description from ODSC - Open Data Science, November 2, 2018

Sentiment analysis algorithms understand language word by word, estranged from context and word order. But our languages are subtle, nuanced, infinitely complex, and entangled with sentiment. They defy summaries cooked up by tallying the sentiment of constituent words.

Unsophisticated sentiment analysis techniques calculate sentiment/polarity by matching words back to a dictionary of words flagged as “positive,” “negative,” or “neutral.” This approach is too reductive. It cleaves off useful information and bastardizes our syntactically complex, lexically rich language. Plus it’s just not the way humans intuit language. We listen to an entire sentence and derive meaning that is gestalt, or greater than the sum of the individual words. Plus we parse incoming words through the complex latticework of lifelong social learning. Our algorithms have little hope.

The [sentimentr](https://cran.r-project.org/web/packages/sentimentr/sentimentr.pdf) package by [Tyler Rinker](https://github.com/trinker) gets our machines *just a hair* closer to this by bolstering sentiment analysis with a lexicon of words that tend to slide sentiment a teeny bit in one direction or the other. These words are known as valence shifters.

Rinker’s package incorporates 130 valence shifters that often reverse or overrule the sentiment calculated by lexicon-lookup methods which don’t sense this sort of subtlety. The four valence shifters accounted for are: negators (*not, can’t*), amplifiers (*absolutely*, *certainly*), de-amplifiers (*almost*, *barely*), and adversative conjunctions (*although*, *that being said*). This is an important (necessary?) step because, as Rinker points out, [up to 20 percent](https://raw.githubusercontent.com/trinker/sentimentr/master/inst/the_case_for_sentimentr/valence_shifter_cooccurrence_rate.R) of polarized words co-occur with one of these shifters across [the corpora](https://github.com/trinker/sentimentr) he looked at.

* The R package **Rsentiment**

Developed by Subhasree Bose, with contributons from Saptarsi Goswami.

The description states:

Analyses sentiment of a sentence in English and assigns score to it. It can classify sentences to the following categories of sentiments: Positive, negative, very positive, very negative, neutral. For a vector of sentences, it counts the number of sentences in each category of sentiment. In calculating the score, negation and various degrees of adjectives are taken into consideration. It deals only with English sentences.

* The R package **syuzhet**

Description: An R package for the extraction of sentiment and its visualization through sentiment graphs.

Extracts sentiment from text using a variety of sentiment dictionaries conveniently packaged for consumption by R users, including the ones described in our discussion of Tidytext ("afinn", "bing" and "nrc"). Offers yet another lexicon, the syuzhet lexicon, developed in the Nebraska Literary Lab under the direction of ML Jockers. This lexicon comprises about 11,000 words with an associated sentiment value, spanning the [−1, 1] range (actually16 values in it). Negative words (i.e., with a negative sentiment value) dominate. The package provides a link to the Stanford's coreNLP sentiment parser.

Finally, a reference to yet another lexicon that may be useful

**OpinionFinder**

OpinionFinder is a system that processes documents and automatically identifies subjective sentences as well as various aspects of subjectivity within sentences. OpinionFinder was developed by researchers at the University of Pittsburgh, Cornell University, and the University of Utah. http://mpqa.cs.pitt.edu/opinionfinder/opinionfinder\_2/