Brigitte Hogan (bwh5v@virginia.edu) and Jason Tiezzi (jbt5am@virginia.edu)

DS 5001: Exploratory Text Analytics

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Tables Manifest

This document provides an overview of the data files containing F2 through F5 data extracted from the corpus. The full OHCO for this digital analytic edition is: book identifier ('book_id'), volume number ('vol_num'), chapter number ('chap_num'), recipe number ('recp_num'), paragraph number ('para_num'), sentence number ('sent_num'), and token number ('token_num'). Additionally, the book's publishing time period ('time_period') and publishing year ('book_year') from the LIB table are sometimes included in the OHCO depending on the purpose.

Core F2 Tables

Table	Description
DOC.csv	Standard documents (DOC) table with OHCO columns to
(17,176 x 6)	paragraph level and an additional column for paragraph string
	('para_str'). There is one row for each paragraph in the corpus.
LIB.csv	Library (LIB) table. Columns include standard features (book_id,
(20 x 7)	author_last, author_full, book_year, book_title, book_file) as well
	as an added variable of "period" which reflects the general time-
	period of the cookbook. There is one row per book in the corpus.
TOKEN.csv	Standard TOKEN table. Columns include full OHCO as well as part
(1048576 x 12)	of speech tagging (pos_tuple and pos), token string (token_str),
	term string (term_str) and term identifier (term_id). There is one
	row per token in the corpus.
VOCAB.csv	Vocabulary (VOCAB) table. Includes term_id, term_str, word
(16,786 x 16)	frequency (n), a number dummy variable (num), a stop-word
	dummy variable (stop), stems (stem_porter and stem_snowball),
	two term rank calculations (term_rank and term_rank2), term
	percentage (p), three Zipf k measures (zipf_k, zipf_k2, zipf_k3) and
	three separate TFIDF sums based on different bags
	(TFIDF_sum_period, TFIDF_sum_book, and TFIDF_sum_recipe).
	There is one row per term in the corpus.

Embeddings

Table	Description
Embeddings_mid1800s.csv	Word embeddings for the corpus of cookbooks written in the
(845 x 19)	mid-1800s. Includes the columns from the VOCAB tables, as well
	as a vector column representing the embeddings generated
	from Word2Vec and an x and y coordinate generated by T-SNE.
	Links to VOCAB table via "term_str."

Emeddings_late1800s.csv (918 x 19)	Contains word embeddings for the corpus of cookbooks written in the late-1800s. Includes the columns from the VOCAB tables, as well as a vector column representing the embeddings generated from Word2Vec and an x and y are the coordinate generated by T-SNE. Links to VOCAB table via "term_str."
Embeddings_1900s.csv (942 x 19)	Contains word embeddings for the corpus of cookbooks written in the early-1900s Includes the columns from the VOCAB tables, as well as a vector column representing the embeddings generated from Word2Vec and an x and y are the coordinate generated by T-SNE. Links to VOCAB table via "term_str."

Sentiment

Table	Description
Emolex_sentiment.csv (3688 x 11)	The emolex lexicon, with columns for term_str, NRC sentiment type (nrc_anger, nrc_anticipation, nrc_disgust, nrc_fear, nrc_joy, nrc_sadness, nrc_suprise, nrc_trust) and NRC sentiment direction (nrc_negative and nrc_positive). This was not generated by us, but is necessary for our code to run. Links to the VOCAB table through "term_str."
Sentiment_book.csv (20 x 24)	Sentiment scores for each book. NRC values come from the emolex lexicon, while the VADER scores come from the VADER engine Columns include period, book_year, full OHCO, NRC sentiment types, NRC sentiment direction, VADER sentiment direction (VADER_pos, VADER_neg, VADER_neu) and overall scores (overall_NRC and VADER_compound.) There is one row per book in the corpus.
Sentiment_period.csv (3 x 24)	Sentiment scores for each time period. NRC values come from the emolex lexicon, while the VADER scores come from the VADER engine. Column values are the same as for Sentiment_book. There is one row per time period in the corpus.

TFIDF

Table	Description
TFIDF_book	TFIDF with bag of book. Columns include period, book_year,
(20 x 16,786)	book_id, and a column for each term string. There is one row per
	book in the corpus. TFIDF_sums were added to VOCAB table with
	term_str.
TFIDF_recipe	TFIDF with bag of recipe. Columns include period, book_year,
(5,631 x 16,786)	OHCO to the recipe level, and a column for each term string.
	There is one row per recipe in the corpus. TFIDF_sums were added
	to VOCAB table with term_str.

TFIDF_period	TFIDF with bag of period. Columns included period and a column
(3 x 16,786)	for each term string. There is one row per period in the corpus.
	TFIDF_sums were added to VOCAB table with term_str.

Topic Model

Table	Description
LDA_TOPICS.csv	A table of the top topics found in the corpus. Columns include
(25 x 14)	topic identifier (topic_id), top ten words in the topic $(0-9)$,
	combined string of top words (label), an human-generated topic
	name (name) and the sum of THETA per topic (doc_weight_sum).
	There is one row per preset number of topics in the corpus. Can
	be bound to PHI or THETA using topic_id.
LDA_PHI.csv	A TOPIC-WORD language model indicating how much a topic likes
(25 x 5001)	a word. Columns consist of top 5,000 most frequent TOKEN strings
	as well as the topic_id. There is one row per preset number of
	topics in the corpus.
LDA_THETA.csv	A DOC-TOPIC language model indicating how much a document
(14,846 x 29)	likes a topic. Columns include the OHCO to paragraph level and
	the topic_id of each topic $(0 - 24)$. There is one row per
	paragraph in the corpus.
LDA_AUTHOR.csv	TOPIC table using author as bag. Columns include the topic_id, 12
(25 x 14)	individual author names, and the human-generated topic labels
	(names). There is one row per preset number of topics in the
	corpus.
LDA_PERIOD.csv	TOPIC table using period as bag. Columns include topic_id, time
(25 x 6)	period (1900s, late1800s, mid 1800s), top terms in the time period
	(topterms), and human-generated topic labels (names). There is
	one row per preset number of topics in the corpus.

PCA

Table	Description
PCA_DCM_book.csv	Document-Content Matrix for book as a bag. Columns include
(20 x 10)	book_id, book_year, period, author last name (author), publication
	year (year), book title (title), a label string for plots (doc), and the
	three Principal Components (PCO, PC1, and PC2). There is one row
	per book.
PCA_DCM_recipe.csv	Document-Content Matrix for recipe as a bag. Columns are the
(5631 x 10)	same as for DCM_book, but there is one row per recipe.
PCACOMPS_book.csv	Top three principal components using book as bag. Columns
(3 x 5001)	include principal component name (index), eig_val, exp_var, and a

	column for each term_id for the top ~5000 most significant terms.
	There is one per principal component per row.
PCACOMPS_recipe.csv	Top three principal components using recipe as bag. Columns and
(3 x 5001)	rows are the same as for PCACOMPS_book.
PCALOADINGS_book.csv	PCA Loadings for the top 3 components using book as a bag.
(4999 x 5)	Columns include term_id, term_str, and three principal
	components (PC0, PC1, PC2). There is one row per term for the
	top ~5000 significant terms.
PCALOADINGS_recipe.csv	PCA Loadings for the top 3 components using recipe as a bag.
(4999 x 5)	Columns include term_id, term_str, and three principal
	components (PC0, PC1, PC2). There is one row per term for the
	top ~5000 significant terms.