Using Social Media to Manage Lyme Disease

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THE DISEASE

Lyme Disease and the controversies surrounding it have been present for years now. With the inefficient treatment guidelines and a discontent between the patients suffering from this disease has lead to a number of online forums and discussion boards starting up.

TOPIC MODELING

Graphing perplexity and number of topics to determine the best number of topics to be shown

Discarded post with large number of words in it possibly due to being spam or contains a descriptive text with little to no treatment information

THE SPREAD

SOLUTION

We contribute,
- An exploratory analysis on the online forum data mainly consisting of user posts and the comments following it
- A qualitative study to compare the interaction of users in the social network over time built on a Python Multi-Process design, using NLP libraries and NoSQL DB

SOCIAL NETWORK STATS

We conclude,
- Topics modelling and the discussion from domain expert confirms some of the topics related to the forum topic board
- Linguistic Inquiry of Word Count resulted in some very interesting findings over the topics being discussed in the online discussion board
- The findings from the Social Network Analysis and the geo-mapping matches closely with that of prior research

FUTURE WORK

The natural language processing pipeline built here offers tremendous opportunity to look deeper into the online forum and perform a thread analysis. A more refined exploration should lead to locating treatment information from user posts.