

Effective matching of offers to existing needs on the Forgood website using NLP

Profiling Volunteering Transactions in South Africa

INTRO

- Various needs are created on the Forgood website but only a few of them are successful. The purpose of the study is determine what makes needs successful.
- Users also create offers for volunteering time or donating goods. Are these offers created because the needs that could be serviced by these offers are absent? Can existing needs be matched to these offers optimally?
- Is there an optimal duration to use when setting a need expiry?

METHODS

1. Inference
2. NLP (Word2Vec)
3. Exploratory Data Analysis

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RESULTS

- Location is an important factor for goods donation and time volunteering
- Good needs to offer matching

Offer	Returned need
I'd like to teach high school kids programming	Help Alexandra Education Committee with 50 volunteers for 4-8 hours for teaching high school kids how to code!
donating winter clothes	Help Little Fighters Cancer Trust by Donating NEW Warm Winter Clothes & Blankets #MandelaDay for Children with Cancer 0 - 18 yrs old #MandelaDay
I'd like to offer school pants	Help Siyakholwa Support Care Centre by DONATING OF OVC SCHOOL SHOEBOX GREY TROUSER,WHITE SHIRT for OVC SCHOOL SHOEBOX WITH SCHOOL CLOTHING,STATIONERY

DISCUSSION

- Causes cannot change location, therefore the insight from the Inference is not helpful to the causes
- Using soft cosine similarities based on Word2Vec returned matching needs
- Among successful needs, 80% of them get their first connect within 69 days

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Distribution of Needs across provinces

