Weekly Progress Logs and Meeting Notes

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1 Week ending 24/3/17

1.1 Progress Log

Wordnet solution added to program code
Change wordnet solution to pick adjective/adverbs with a degree of randomness as absolute average word can be very plain and nondescript
Starting on nlg system
Reading book on creating nlg systems,
Looking in to other nlg systems out there again for inspiration - JAPE, KNIGHT, PIGLET, STOP system

1.2 Meeting notes

Meeting moved to Monday due to issues with public transport

2 Week ending 17/3/17

2.1 Progress Log

Fixing bugs in the template system- a lot of changes had resulted in a lot of errors overlooked
Working on wordnet solution - harder than assumed
Changes to report given new context of reviews to be believable rather than particularly summarative or profound
Writing literature review and implementation sections

2.2 Meeting notes

Plot out the 9 weeks - data gathering for evaluation
Deploy the final form in roughly 3 weeks? to start getting data

3 Week ending 10/3/17

3.1 Progress Log

Adding to report - introduction
Adding to report - literature review
Wrote out test plan for systems implemented currently
Looked into wordnets, aiming to pick the most descriptive adjectives out of sentences and pick the most representative word from the wordnet to see what I get.
Add comment section to blog website
Improve method for detecting sentences

3.2 Meeting notes

How am I going to measure my output criteria
start on nlg system
continue testing
do small jobs if having trouble focusing

4 Week ending 3/3/17

4.1 Progress Log

Scraping movie synopsis off of IMDb, and summarising it using the summa library for now.
Gather a corpus of movie reviews using screen scraping from IMDb
This corpus isn't actually very good for generating review text - it's mostly negative and not really constructive, seems to follow the general adage that people don't go on the internet to sing the praises of films and mainly to slate them.
It gives a strong negative bias towards movie reviews generated because of this.

Set up a mySQL database for blog website, has users, posts and feedback gathering tables.
Set up the website, reviews are manually input through the blog at the moment but it is easy to insert them using mySQL in python

4.2 Meeting Notes

Discuss how to gather feedback
let users comment on reviews
agreeable/disagreeable reviews in order to generate traffic?
testing, minimal tests some degree of randomness
make sure i always get the same text with one seed
set up scenario to fix problem etc
test where bug doesn't happen again kind of scenario

5 Week ending 24/2/17

5.1 Progress Log

I have not been able to do very much work this week as my laptop had something spilled on it on Sunday and have mostly been waiting to get it back.
Added to report introduction, further explanation and content from preliminary report that applies.
Added to report literature review, content from my preliminary report.
More reading on natural language generation:
Got hold of Building Natural Language Generation Systems for further reading.
Exploring web scraping, trying to find a way to gather a corpora of more than one movie review easily. Currently seems easy enough to get one from a specific website but more than one is difficult and might just require a bit of brute-forcing.

5.2 Meeting Notes

The meeting was cancelled this week and rescheduled for during easter so one did not take place.

6 Week ending 10/2/17

6.1 Progress Log

Obtained an API key for themoviedb which allows lookup of movie metadata in a much nicer way than trawling text files from IMDb
Looked at textrank algorithm for summarative sentence generation. Used a library to test it out
programmed a metadata lookup for the template generation system
generate a list of sentences pertaining to actors and staff memebers with their sentiments attached

Generate a movie review based off of the metadata and extracted sentiments from reviews
Not enough is learned from the corpora to talk much more than superficially however - we cannot justify the opinions, only report them.
Reading ch 7 of the nlp with python textbook, I might want relation extraction from the corpora.
Started writing project preliminary report.

6.2 Meeting Notes

Worry about the level of readability - plausability is ok, system doesn't have to be perfect if we are just testing
-Reminder to be realistic about what i can create
having a plan and something to show to participants
send Christophe draft plan - gantt chart w/ fairly small sub-tasks, more tasks - for wednesday 4pmish probably
Think about whether or not i am experimental about this or want to examine the effect on a group of users (methodology)
-entology of concepts related to film in order to produce realistic text

-preliminary report follows the general structure of the fyp report

-Create a gantt chart ofplanned further work

7 Week ending 3/2/17

7.1 Progress Log

Started programming with the twitter API using Twython to post tweets and read a timeline for a corpus
Text processing for twitter timeline, trying to get markov chain generated for corpus of tweets, experiencing strange bug
Read several articles on keyword extraction, decided using RAKE library for python and SKLearn for sentiment analysis just to start
Used RAKE to extract keyphrases
Installed NLTK because it should be more straightforward to perform sentiment analysis with
Downloaded movie review corpora of pos/neg film reviews
NLTK import error name overridden (Solved)
Used NLTK Vader to classify sentiment of movie reviews

Used markov chains to construct movie review text
Markov chain automated twitter posting is set up (no replies or searching yet)
Twitter search + chain from search

8 Meeting notes

Move on to template system
Markov chain for template generation

9 Week ending 27/1/17

9.1 Progress Log

Read into neural networks for natural language generation. It was interesting and could be worth exploring although articles stipulate that recurrant neural networks (the kind used for modelling sequential data and thus generating text) are difficult to train effectively. This could be too time costly for the space of my project. Other draw-backs are that the neural network isn't going to form truely informed opinion and might not even be particularly coherent.

Read into sentiment mining, markov models and information extraction (ch 6, 9 and 21) https://web.stanford.edu/ jurafsky/slp3/

Found resources for sentiment analysis - movie reviews and sentiment keywords for films

Researched methodologies for natural language key phrase mining - unsupervised vs supervised

Looked in to related work - there are lots of article summarizers out there using keyphrase extraction

Added to the context/motivations section of the introduction
Wrote cursory list of goals and aims for the introduction
Wrote about related works in natural language generation / text generation

9.2 Meeting notes

#icanhazpdf
writing to authors to obtain papers isn't a bad idea

browse the library
senate house library for printed journals
footnotes vs references
internet archive link for online resources
google spreadsheet the plan

to do:
have a look in the library, see if I can find any movie review discourse in the media/language section update plan a bit, have a look at google
do some programming

10 Week ending 20/1/17

10.1 Progress Log

Set up github repository for final year project deliverables
Implementation of Markov chain text generator - the first and most simple NLG tool I will be implementing, forms a table of n-word prefixes mapped to the suffixes that occur in a given corpus of text. Then choosing an arbitrary starting point they follow the chain with some stochastic probability in the case where maps contain more than one suffix value and continue the chain until a stopping point of n words, or the end of the chain is reached.

10.2 Meeting notes

(discussion of project structure)
abstract

context / literature review
- review of text generation and movie reviews

- problem statement , high level aims, individual objectives of the project
fairly broad aims, objectives are measurable

- design / implementation
talk about design of natural language more generally or of my systems

- testing and evaluation chapter
testing of individual components

have i mangaed to drive traffic in any way for twitter bot

turing-like test

- conclusions and further work

- bibliography

context + lit review, design + imp, testing and evaluation should be roughly the same size

can collect things that i will be writing about

bibliography generation tools - endnote (?), latex

show next week the context + lit review skeletal stuff
categorise things i want to write about into text generation, evaluation of text, etc

investigate neural networks for text generation, not necessarily to persue

come back with something that works, some context, problem statement and some objectives

gant chart / some description of milestones and the bits of work that need to be done for those milestones

10 minute summaries of work at end of each session