

Initial Plan
Automated Email Reply Using Case Based
Reasoning

James Morris

Dr Jianhua Shao

CM3203
40 credits

January 30, 2017

1 Description

Admissions tutors can get thousands of emails from prospective students inquiring about their application, or whether they have the right attributes that could give them a chance of being accepted. Replying to these emails can be a time consuming process for an academic member of staff. In a lot of these cases the questions being asked can be very similar and force the tutor to repeat themselves.

The aim of this project are to provide an automated system to reply to emails sent to an admissions tutor based on answers given to previous emails.

2 Aims and Objectives

Build a system that can automatically reply to emails based on previous replies given.

1. Storage of previous emails.
 - Suitable storage solution for the emails and corresponding replies given.
2. Understanding of the received email.
 - Must be able to understand what the received email is asking for to allow retrieval.
3. Retrieval of similar emails.
 - Suitable similarity measure between received email and stored emails must be determined.
4. Adapting previous replies.
 - Suitable method to construct reply from previous replies must be determined.
5. Verify reply constructed.
 - Suitable method to determine constructed reply is suitable must be determined.

3 Work Plan

Week 2

- Background research into case based reasoning methods - storing, retrieving, adapting, verifying.

Week 3

- Write up background for report.
- Have supervisor meeting to discuss findings from research and implementation approach.
- Implement suitable method for storing previous emails and replies.

Week 4

- Implement algorithm to process the received email.

Week 5

- Implement algorithms for retrieval of similar stored emails - different approaches evaluated to determine best.
- Have supervisor meeting to discuss progress of implementation.

Week 6

- Implement algorithms to adapt stored replies to fit received email.

Week 7

- Implement algorithm to verify constructed reply.

Week 8

- Write up specification and design for report.

Week 9

- Test system and write up results for report.

Week 10

- Write up future work and conclusions for report.

Week 11

- Compile final report.

Week 12

- Submit final report.