

433-460 Project Report

Submission

1st November 2014

Introduction

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More information is available today than ever before. Millions and millions of

The latest question answering conference was NTCIR-4 held in Japan in June 2004 where many usual Japanese systems were tested. The best systems there were getting MRR (Mean Reciprocal Ranks) of about 0.6 which shows an improvement from past conferences but there is still a long way to go before

is shown in **Figure 1**.

type and expected answer type of the question. The evaluate against the standard data using `question.evaluate()`.

answer Type classification

This function takes the tokenised question and the question type and attempts to determine an expected answer type from the Named Entity type.

Element question types suggest element question patterns and hence the process is a function of question type. For most question types the general rule pattern is to look at the words just before or just after the interrogative in the question search for a salient entity word. If this entity word is found in the named entity type it is returned as the expected answer type. A lookup table was constructed to transform some common abbreviations and synonyms to their equivalent in the NE type such as 人名 (person name) to レビ 名 (TV person name) or 社名 (company name) to 企 名 (company name).

If no relevant entity word is found a more general entity that matches the question type is returned. For example the question type どこ (where) if no more specific information is found would return an answer type of 地名 (location).

It

It was hoped that more question data might be available to evaluate the system against but that has not materialised at this time. The data available was used to instruct generalised rules and then see how well these rules could produce the same question and answer types found in the original data.

It was found that the question type could be detected with an accuracy of around 98% against the original data. Examining the manually classified questions it was found that in some cases the classification of the "old standard" data was inconsistent and for example classified questions that were meant to ask "how many" or "how much" as simply "what". Whilst the person could have been modified to classify these questions according to the old standard it then that the purpose of this system is to analyse Japanese questions in general as opposed to these questions in particular these modifications were not made.

The then errors found in question classification were in general due to inappropriate segmentation by Character which led to interrogatives not being identified. Various patterns could have been handled .944-0- person the segmentation errors cannot be consistent in making and in these is

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