

Human Language Technology Assignment I

October 2009

Aims

The aims of this assignment are

1. To design a morphological analyser for a representative of words in English.

The analyser should be defined as an `xfst` script in a text file `analyser` which is loaded into `xfst`¹ in the normal way, i.e.

```
xfst[0]: source analyser
xfst[1]: up <wordform>
<analysis 1 of wordform>
[...]
<analysis n of wordform>
xfst[1]: down lexical_entry+morpheme1,...,+morphemeN
<wordform 1>
[...]
<wordform n>
```

2. To extend the analyser using a supplied newspaper article as a source of words.
3. To report on 1 and 2.

The report on 1 should explain how the script works, and report on any errors.

The report on 2 should attempt to demonstrate words from the article that could be handled by your analyser, and comment on those that can only be added with difficulty.

Deliverables and deadlines

- Report - hardcopy (addressing 1 and 2 above).
- `xfst` script together with any test data (CD)
- submission to Dept Office

¹More information about `xfst` is available at <http://www.fsmbook.com>. See also Shuly Wintner's mini-tutorial at <http://cs.haifa.ac.il/~shuly/teaching/06/nlp/xfst-tutorial.pdf>

Criteria

- **Correctness.** Your system should generate/analyse
 - *only* words which are valid English.
 - *all* the lower forms of the upper words and not just some of them.
 - If you do not fully manage to achieve correctness, state where the errors are.
- **Clarity.** Your *xfst* script should be easy to understand and reflect linguistic principles of the kind we have discussed.
- **Extensibility.** Examine the accompanying newspaper text. Show which words can be easily incorporated into the lexicon. Comment on any problems

Linguistic Facts

The analyser should handle the following words and linguistic facts and should be easily extensible to handle similar facts in the same class.

NOUNS	+PLU			
dog	dogs			
sheep	sheep			
fox	foxes			
church	churches			
octopus	octopi			
mouse	mice			
child	children			
VERBS	+3SG	+PROG	+PAST	+PPT
talk	talks	talking	talked	talked
eat	eats	eating	ate	eaten
fly	flies	flying	flew	flown
drop	drops	dropping	dropped	dropped
catch	catches	catching	caught	caught
sing	sings	singing	sang	sung
ADJECTIVES	+COMP	+SUP		
black	blacker	blackest		
big	bigger	biggest		
good	better	best		
large	larger	largest		
happy	happier	happiest		

Newspaper Text²

Two former members of the Development Control Commission were cleared of exercising private interest in the adjudication of an outline permit for a controversial open-air discothque in Mistra.

Magistrate Edwina Grima found that the elements of the crime had not been proven and the two men were of a certain professional integrity and could never be found guilty.

This was primarily because evidence showed they had no private interest in voting for the outline development permit that, in itself, did not lead to the development going ahead.

Last year, Philip Azzopardi, former chairman of a Development Control Commission (DCC) board, and Anthony Mifsud, a former board member, were charged with taking a private interest in the adjudication of the permit.

Their arraignment followed a three-month police investigation that was launched after the Labour Party, shortly before the March 2008 general election, alleged there was corruption in the way the permit was issued for the land owned by Nationalist MP Jeffrey Pullicino Orlando.

Magistrate Grima went through the two main points made by the prosecution.

The first point relates to the fact that the accused told the police that throughout the adjudication process they attended meetings organised by the planning authoritys complaints and liaison officer Lawrence Vassallo and which were attended by Dr Pullicino Orlando.

During investigations, the two men showed uncertainly as to whether such meetings should have been taken place. However, the magistrate noted, such meetings constituted normal practice by the Complaints and Liaison Department to iron out issues between the planning authority officers and developers.

Evidence also showed that it was Mr Vassallo that decided who should attend the meetings and the two accused never tried to make any private contacts.

The second argument made by the prosecution revolved around the accused saying that Dr Pullicino Orlandos presence at the meetings influenced their decision.

However, they maintained they never knew that Dr Pullicino Orlando was the owner of the land and may have attended the meetings for personal reasons. They thought he attended because of his interest in the tourism aspect of the development. On evaluating the evidence, Magistrate Grima noted that, for the charge to subsist, several elements had to be proven and the most important was that they had a private interest.

She went on to note that evidence indicated this was not the case and listed the reasons: They did not know the project applicant, owner or developer let alone Dr Pullicino Orlando; they had no interest in the shares of any company run by Dr Pullicino Orlando; they were never

²taken from the Times of Malta 29.10.2009

bribed or accepted bribes; the meetings with the MP were legitimately organised.

The decision to grant the outline permit was taken by the whole board and did not depend on the two accused; they did not pressure other board members; the decision was not final and it recommended that the granting of a full development permit was subject to various conditions.

The two men were cleared of the charge brought against them. The magistrate pointed out that throughout the case she had been presented with irrelevant evidence that went into the adjudication procedure. That, she said, was up to the Malta Environment and Planning Authority to decide.

Police Inspector Angelo Gaf prosecuted.

Lawyers Joseph Giglio, Stephen Tonna Lowell and Peter Fenech represented the two men.

Nationalist MP Jeffrey Pullicino Orlando welcomed the courts decision as evidence that all the allegations made against him before the March 2008 elections were in fact false.

I had to face allegations that have now been proven false... Im sorry that these two men and their families had to pass through all this for nothing, he said in a reaction to the judgment that cleared the two former DCC members.

After the allegations were made by the Labour Party, before the 2008 general election, police investigations led to the arraignment of three men. Mr Azzopardi and Mr Mifsud were acquitted yesterday and the case against George Micallef - who used to be a high-level consultant with the Malta Tourism Authority was charged over a false declaration and planning development crimes. His case remains pending.

No criminal action was ever taken against Dr Pullicino Orlando.

The planning authority noted with satisfaction that the two former DCC board members were freed from the charge brought against them.

The authority said it had full trust in the Maltese judiciary.