Fall Semester 2017
Iowa State University

LING 120 - Language and Computers

Assignment 3
Submission Deadline: 7 OCT 2017, end of the day

Instructions: This assignment consists of two questions and carries a total of 10 marks. Submit your assignment as a *PDF* file and name it as: your_first_name–your_last_name.pdf Late submissions are allowed, but will not be awarded full credit.

Question 1

Your first question is about language tutoring systems and tests. It has two parts, each carrying 2.5 marks.

a. Go to duolingo.com, choose a language of your choice, take the Basics-1 lesson (e.g., here is one for German `https://www.duolingo.com/skill/de/Basics-1`). Spend a few minutes with the website (or install the app if you want). How does it compare to the tutoring systems you saw in the textbook?

b. Go to `https://learnenglish.britishcouncil.org/en/content` and try taking the test. You do not have to finish it. Is this test adaptive? How can you say? Give specific examples to say the test is adaptive or not.

Question 2

a. Go to `http://corpus.byu.edu/wiki/` and do a search on it to answer the following questions:

- What is the most frequent Pronoun in this corpus? and what is its frequency?
- What is the most frequent word with "sse" in between? What is the frequency?
- How many times do the words "believe" and "people" appear within 1–3 words distance from each other?

Explain how you found these out.

b. Imagine there is this new search engine N, which automatically groups search results in to sensible groups (e.g., if you search for "Java", it automatically groups results into "Java, the Indonesian Island", "Java, the programming language", "Java, coffee variety" etc. Now, go to amazon.com and search for "Java". It shows 33 departments and filters search results by department for you. What is the difference between both these searches? Which is easy or difficult for a computer? Why?