NLP 245

Assignment #1 ELIZA

ELIZA was the first chatbot. It was designed to act like a Rogerian Therapist, a therapy style that largely reflects the patients' statements back. The original ELIZA publication is:

Joseph Weizenbaum. ELIZA—a computer program for the study of natural language communication
between man and machine. Communications of the ACM, 9(1):36–45, January 1966.
DOI: 10.1145/365153.365168 20
https://dl.acm.org/doi/pdf/10.1145/365153.365168

The assignment is to take an ELIZA code base, and try it out looking for responses that could be improved. In particular, identify four weaknesses in ELIZA system you are working with and implement improvements to them. You are not looking for "bugs", but rather you are looking for limitations. For example, (made up examples to illustrate the type of problem to look for) purely linguistic limitations: odd lexical choice, doesn't handle singular/plural, tenses. Or maybe it goes to a fallback for cases that could be handled.

For this assignment you should turn in:
- A description of the 4 problems/limitations you have identified which should include why each one is a problem (e.g. does it make the response awkward, harder to understand? Does it break the illusion of understanding…) and why you think it happens given the ELIZA code (e.g. not implemented, not all subcases covered…)
- Description of what you did to improve the system.
- Improved ELIZA code
- Demo video

Here are two implementations of ELIZA, one in python and another in java:

https://github.com/wadetb/eliza
https://github.com/codeanticode/eliza

The assignment is due Wed 12 April. The details of how to turn it in are being worked out and will be posted soon.

ELIZA grading and comments