Typhoon Dialogue Game

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Dialogue systems LT2216

Project presentation 20/3/24

Typhoon 

- A trivia game in which the goal is to answer five questions correctly and avoid the "Typhoon".
- Typhoon is a randomized state that causes the player to lose all their points and thus lose the game.
- In the beginning of the game, the player chooses from five topic categories, but they are also allowed to change the category mid-game.
- In the game, players are presented with various visuals on the screen, but the interaction with the game is dialogue-based.
- The user is provided with hints, feedback, and other options throughout the game.

Technicalities

- Use of Xstate with JavaScript for game management.
- We trained and deployed a Conversational Language Understading Model in Azure AI Services, which allowed us to exploit intents and pre-trained entities in the game.

Challenges

- The graphical user interface, programming with CSS and HTLM and operations done in "main.js"
- Dynamic buttons (displays dependent on state), visuals
- ASR/NLU follows US standards (not very flexible). Could be solved with Custom Speech?
- Handling "out-of-grammar" situations

- Working as a team of two made reviewing and debugging the code more pleasant, and we found gitHub rather convenient.

Course

- Statecharts was a suitable framework for our type of dialogue game.
- Learning how to use statecharts and how to incorporate Speechstate was very useful for the development of our game.

- Ethical issues? Not really.
- The programmer gets to decide the correct answers.

Future improvements

- Further compress the number of states (by nesting / using more functions)
- Include NLU in the answers. Or the program could do a web search to check the answer in the future?
- Add a multiplayer option
- Acknowledge players' accents better
- Making the dialogue less repetitive, allow more variation in user's answers (full sentence answers, "box 2" etc.)
- Work on visuals

Demo time x2