

Conversational Agents Prototyping

Human-AI Interaction

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A Prototype Conversational Agent

- Final goal
 - to *design* and *implement* an interactive prototype for a conversational agent
 - it should be vocal and/or textual (only or mainly, it is up to you)
 - the answers will be "fake"
 - it will always answer the same 2-3 things for each different question

Step 0

Choose your specialty!

On Feb 5

Step 0

- **Decide** what the conversational agent should be able to "do"
 - the "intelligence" should mainly be in the "conversational" part
 - write it down the topic/idea/problem to be solved
 - e.g., "*our app will support/help/... people to...*"
 - in a slide

Step 1

Design the Conversational Interface

On Feb 6

Step 1

- **Design** the conversational UI
 - in a slide
- Possible questions:
 - Which dialogues?
 - Will all the answers be textual/vocal, only?
 - How to recover from errors?
 - Which is the tone?
 - How many details?
 - ...
 - Which Human-AI Interaction guidelines follows and/or ignore? Why?

Use this!

- <https://www.microsoft.com/en-us/haxtoolkit/library/>
- <https://www.microsoft.com/en-us/haxtoolkit/playbook/>

Guidelines for Human-AI Interaction

The Guidelines for Human-AI Interaction will help you create AI systems and features that are human-centered. We hope you use them throughout your design process – as you evaluate existing ideas, brainstorm new ones, and collaborate with the multiple perspectives involved in creating AI.

These guidelines synthesize more than 20 years of thinking and research in human-AI interaction. Learn more: <https://aka.ms/aiguideelines>.

Category	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
INITIALLY	Make clear what the system can do.	Make clear how well the system can do what it can do.																
DURING INTERACTION			Time services based on context.	Show contextually relevant information.	Match relevant social norms.	Mitigate social biases.												
WHEN WRONG							Support efficient invocation.	Support efficient denial.	Support efficient correction.	Scope services when in doubt.	Make clear why the system did what it did.							

HAX Playbook

Describe your AI feature

Restart Undo

Test these scenarios

Total scenarios: 0

Export

Which of these systems is closest to what you are designing?

- Search
A search system locates items that correspond to user-specified keywords, phrases, or characters.
- Recommendation
A recommendation system makes preferred-content suggestions, sometimes by predicting the user's rating of the content.
- Conversational AI
Conversational agents interact with people through one or more exchanges of natural-language dialogue, similar to conversing with a person.
- Text prediction and assistance
Text prediction and writing assistants help with the writing process, including research, grammar, tone, and localization.
- Classification
Text or document classification categorizes text in groups organized by predefined labels.

Step 2

Implement a Prototype!

On Feb 6-12

Step 2

- Implement an interactive prototype for your conversational agent
 - Choose the **main** functionalities!
 - One to two, only
- By using Dialogflow or the OpenAI APIs
 - you can start from the examples shown in class!

Step 3

Share it!

On Feb 12

Step 3

- Present your prototype and the underlying idea in 10 minute
 - Put together the slides you prepared
 - Add a couple of screenshots/screen-recordings
 - Prepare a short demo
 - Connect your laptop to the projector... and speak!

Step 4

Submit it!

Submission Instructions

- One per team, choose a "submitter"
- Convert the set of slides you prepared in PDF and name it as follows:
Lastname_Firstname_ex3.pdf (example: Monge_Alberto_ex4.pdf)
- Upload the resulting file to OwnCloud, at the following URL:
<https://baltea.polito.it/owncloud/index.php/s/R1sdHXQ7ZCWAitZ>
- By **Feb 12, 2024**