

Museum Tour Robot

Group 4:

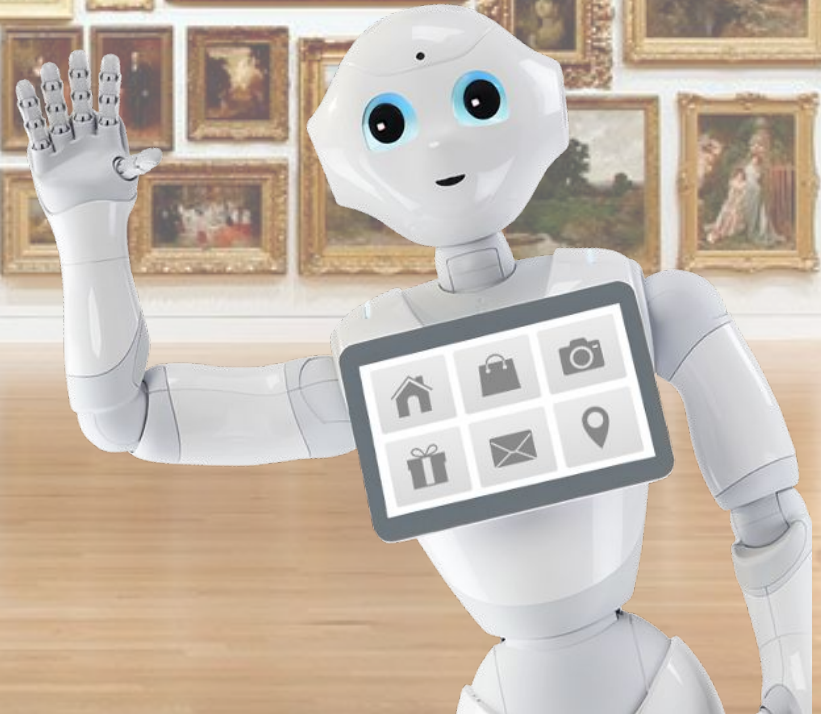
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Vision

A museum tour robot to enhance a visitors' experience in a museum by providing an interactive experience.

- Personal and unique tour
- Introduction dialogue
- Dialogue about the artworks

Focus for this project only on dialogue

Objectives

The robot must be able to:

- Enhance the museum experience by giving personal tour based on interest and background of the user.
- Attract younger visitors to the museum by combining technology and personalized tours with the museum.
- Conduct a personal dialogue with a user.
- Easy to use also by less technical engineered users.
- Applicable to any museum.

Users

We focus on younger users between 18 and 30 years.

- Museum visitors (between 18 and 30 years old)
- Museum owners
- Museum employees
- Maintenance technicians
- Government



Pepper

Use of the Pepper robot along with the developing software Choregraph.

Social robot with integrated:

- Speech recognition
- Speech processing
- Face detection
- Non-verbal communication



Approach / design choices

The background image shows a long, grand museum gallery. The ceiling is high and features intricate, gilded architectural details and frescoes. The walls are lined with large, framed classical paintings. In the foreground, a long, ornate table with a dark top and gilded, carved legs sits on a raised platform. The floor is polished and reflects the light from the gallery.

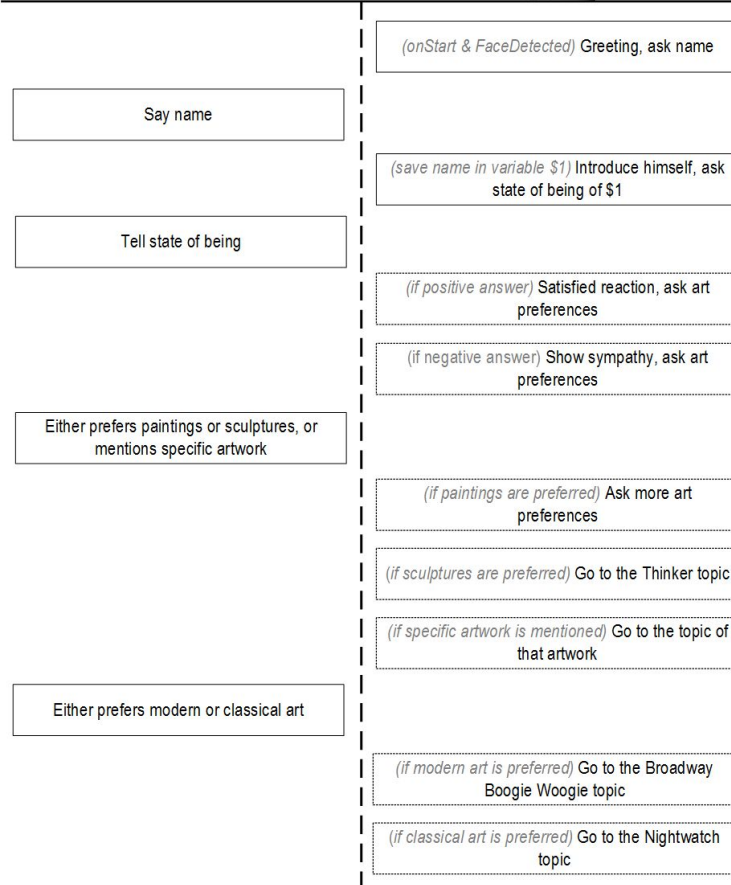
- A literature review on the SotA.
- A study on general tours in museum (Van Abbe museum).
- Delve into the use of Choregraphe.
- Writing of a code which ensures that Pepper could have a conversation with a user.

Conversation

- Introduction
- Different topics for artworks
- Common questions
- A looooot of synonyms



General



Conversation

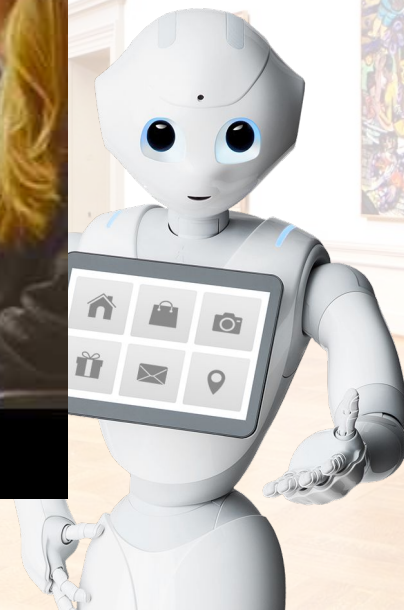
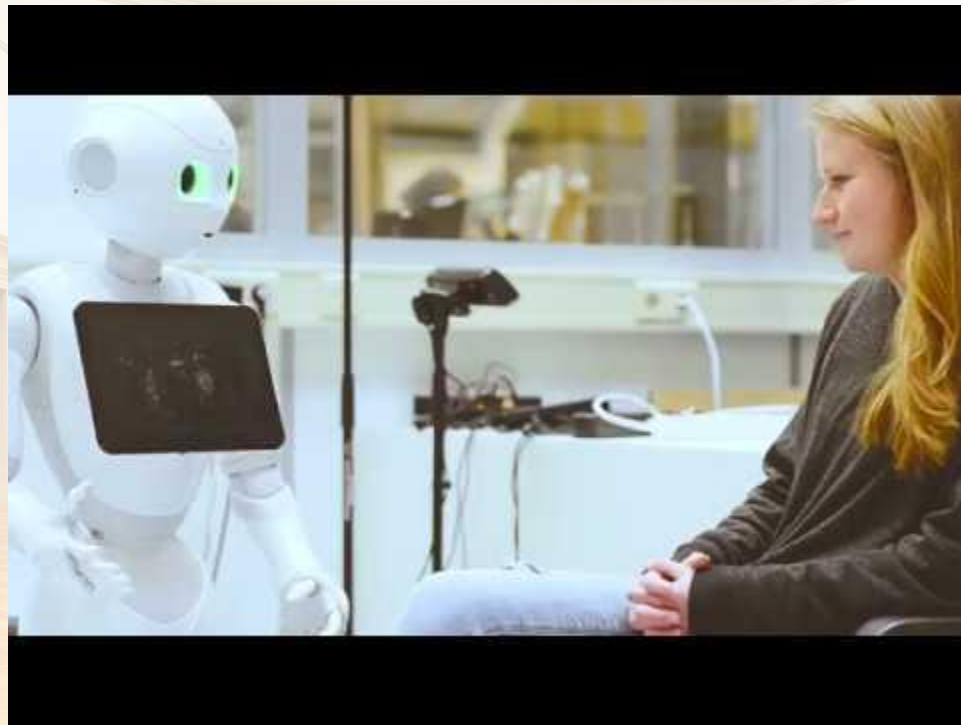


Artwork



	<i>(onStart artwork topic)</i> Introduce artwork and ask opinion	<i>(if more information is wanted)</i> Tell fourth and last part of information, ask questions left
Give opinion	<i>(if positive answer)</i> Satisfied reaction, propose giving more information	<i>(if going to the next artwork is wanted)</i> Ask which artwork
	<i>(if negative answer)</i> Show sympathy, propose giving more information	<i>(if specific artwork is mentioned)</i> Go to the topic of that artwork
Either wants to get more information or not	<i>(if yes)</i> Tell first part of information, propose giving more information	<i>(if stopping the tour is wanted)</i> Say bye
	<i>(if not)</i> Propose either going to next artwork or stop the tour	<i>(if questions are left)</i> Ask what question
Either wants to get more information, go to the next artwork, or stop the tour	<i>(if more information is wanted)</i> Tell second part of information, propose giving more information	<i>(if no questions are left)</i> Propose either going to next artwork or stop the tour
	<i>(if going to the next artwork is wanted)</i> Ask which artwork	<i>(if specific artwork is mentioned)</i> Go to the topic of that artwork
	<i>(if stopping the tour is wanted)</i> Say bye	<i>(if question is asked)</i> Try to respond, ask if there are more questions left
Either wants to get more information, go to the next or a specific artwork, or stop the tour	<i>(if more information is wanted)</i> Tell third part of information, propose giving more information	<i>(if going to the next artwork is wanted)</i> Ask which artwork and go to the topic of that artwork
	<i>(if going to the next artwork is wanted)</i> Ask which artwork	<i>(if stopping the tour is wanted)</i> Say bye
	<i>(if specific artwork is mentioned)</i> Go to the topic of that artwork	
	<i>(if stopping the tour is wanted)</i> Say bye	

Demonstration



AN SCHILDERS

Thank you for your attention!

Are there any questions?

