


Age-appropriate Participatory Design of a Storytelling Voice Input in the Context of Historytelling

Study by Volkmann et. al., 2019

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The storytelling interactive platform for older adults

Create a conversational agent for older adults to tell life stories on a digital platform and share them with other people.



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graph LR; A[Study on the type of voice input] --> B[Research for the user requirements]; B --> C[Prototyping and the tool evaluation];
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Study on the type of voice input

Research for the user requirements

Prototyping and the tool evaluation

What can we learn from this study

Future users can be integrated into all steps of the tool development

A Wizard of Oz method to prototype the conversational agents with a focus on the interaction without technological limitations



Which type of voice input is suitable for older adults?

Audio recording

Voice recording

Speech-to-Text

Converts spoken words
instantaneously into text

Automatic transcription

Converts the recorded audio
to text afterwards

Which type of voice input is suitable for older adults?

Audio recording

Voice recording

2

Speech-to-Text

Converts spoken words
instantaneously into text

4

Automatic transcription

Converts the recorded audio
to text afterwards

6

8 participants in total

What are minimal requirements for a conversational agent?

for older adults in the context of storytelling

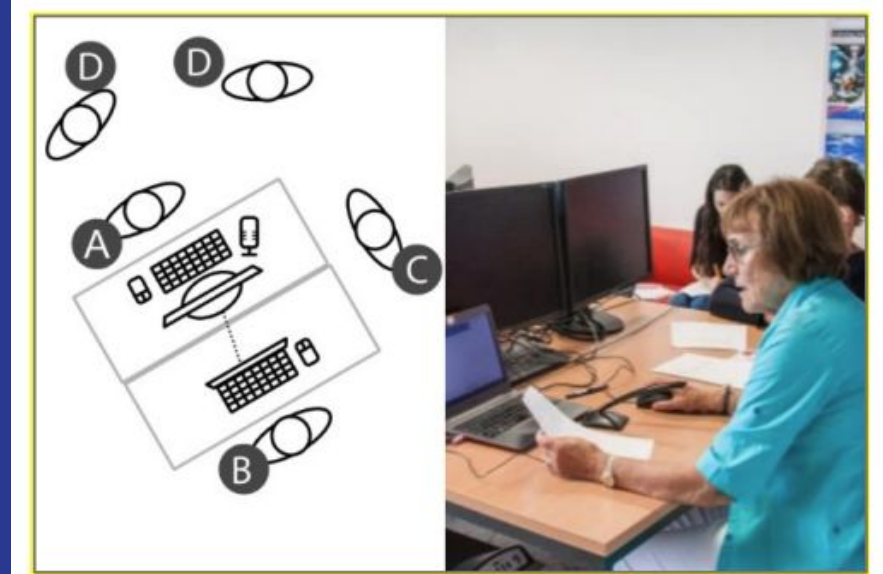


Figure 1: Sketch and photo of the simulation game's setup; A=Storyteller, B=Assistant, C=Observer, D=examiner.

What are minimal requirements for a conversational agent?

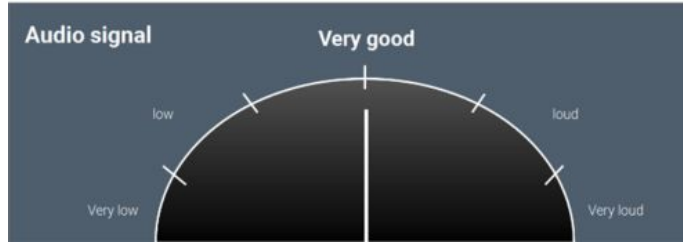
for older adults in the context of storytelling

The participants expected for an assistance system behaving like a polite competent human.

The recording flow should be supported from start to finish

Two prototypes

1



2



The audio signal is too loud!

Please check your microphone position. It might be too close to your mouth. Also, please ensure that you are in a quiet surrounding.



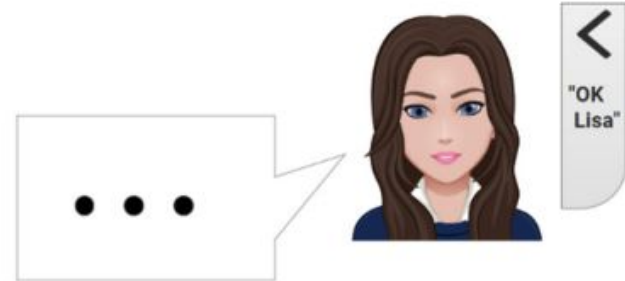
1



2



3



Results

- A conversational agent for older adults should guide the users through the recording process.
 - Older adults strongly prefer voice assistance, but only if feedback was triggered on time
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