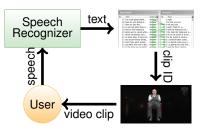
## **Direct and Mediated Interaction with a Holocaust Survivor**

USC Institute for Creative Technologies

Partners: USC Shoah Foundation; Conscience Display

**New Dimensions in Testimony**: talk to a Holocaust survivor System plays appropriate video clip in response to user utterance Response classifier identifies best response Dialogue manager handles non-understanding with off-topic utterances 1600 video responses, trained with over 10000 user utterances Extensive data collection to enable direct responses to common user questions Bethany Lycan<sup>†</sup> and Ron Artstein <sup>†</sup>Now at CSU Long Beach



## System designed for direct interaction, but placed in museums in two distinct settings

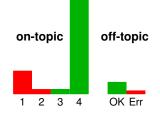
Illinois Holocaust Museum and Education Center Interaction mediated by museum docents



United States Holocaust Memorial Museum Visitors interact with system directly



## ~2000 responses from each museum rated for appropriateness



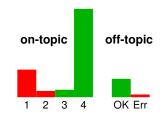
Vocabulary size: 961 Vocabulary density: 14.2 More direct answers
Better direct answers

- Fewer cases where direct answer is unavailable (all  $\chi^2$ , p < 0.005)

Docents lead system to known responses

Overall appropriate behavior (correct direct answers + correct off-topic responses) only slightly lower (79% vs. 76%, p = 0.035)

Correct behavior in the face of unknown inputs



Vocabulary size: 1386 Vocabulary density: 10.5

us Majdanek war liberation hear didn't what's tell testing sing England why life about after Warsaw I'm it's rap cats

Most distinctive lexical items

Higher lexical variation in direct interaction  $\rightarrow$ 

I it concentration kosher yourself don't me joke is if or much and favorite now that they summary eat experienced

## Most common user questions ory More personal, conversational in nature

Oriented towards survivor's specific story

Testing How many languages do you speak? Tell us about your childhood Can you hear me? What was life like in the Warsaw Ghetto? What was life like before the war? Why didn't the Jews fight back? How did you meet your wife? Do you have children? Hello How old are you? Where were you born? Hello Pinchas How are you? How did you survive? Do you have any regrets? Good morning How are you today? Thank you

Where do you live now? What happened to your family? Can you tell us about yourself? What's your name? Hi Pinchas Tell me a joke What's your favorite color? What is your name? Can you tell me a joke?