

**USC Shoah Foundation is developing New Dimensions in Testimony, a new technology that is revolutionizing the concept of oral history that will enable people - now and far into the future - to be able to ask any question to the survivor about their life experience.**

The pioneering project integrates advanced filming techniques, specialized display technologies, and next-generation natural language processing to provide an intimate experience with eyewitnesses to history who are uniquely qualified to offer personal reflections and answer direct questions about their firsthand experiences with the Holocaust.

The project delivers a learning environment in which a survivor answers questions as if he or she were in the room. Whether in a classroom or a museum setting, the exhibit features the filmed image of the survivor, creating the perception the survivor is in the room and responding to questions conversationally with answers that are authentic and spontaneous.

### **Extending the Conversation of Testimony**

For more than 70 years, Holocaust survivors have recounted their stories to tens of thousands of people all over the world, providing invaluable insights that shape and inform perspectives. As a part of those encounters, students have asked questions in their own words about issues that are important to them.

A dozen Holocaust survivors who previously sat before a camera for USC Shoah Foundation's Visual History Archive have given testimony a second time for New Di-



Pinchas Gutter during recording

mensions in Testimony. This time, however, they sit in a light stage, in the center of a half-dome lined with a green-screen backdrop and equipped with a system of lights, microphones and more than 100 video cameras.

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“It is amazing to think with New Dimensions in Testimony, I will be able to hold the same type of conversation with future generations that I have now when I go out to speak to students. It is a truly good use of technology for the future.”

*Pinchas Gutter, survivor*

The Institute also recently interviewed a survivor of the 1937 Nanjing Massacre in her native Mandarin, making her testimony the first one done in a language other than English. This exhibit will eventually be on display in China.

The idea is to capture a three-dimensional recording of them answering questions that people are most likely to ask. The questions posed for New Dimensions in Testimony came from a variety of sources, including staff members from the Institute, as well as

hundreds of students and members of the public. All told, interviewees will be able to answer thousands of questions that cover a vast range of subjects.

Audiovisual recordings of these completed testimonies can be projected today via high definition two-dimensional screens. Soon, visualization techniques in development will be able to display the survivor in three dimensions – no 3-D glasses required – to provide an experience as close as possible to face-to-face interaction.

Envisioned by concept developer Heather Maio of Conscious Display, *New Dimensions in Testimony* was launched with technological expertise from USC's world-renowned Institute for Creative Technologies (ICT).

### Advancing Technology for Humanity

The key element of the project is the ability of the natural language technology to interpret questions being asked and find the most relevant response. In this sense, the exhibit “learns” and the relevancy rate of its responses improves.

Whether people ask, “Where were you born?”, “Do you believe in God?”, “How did you survive?”, data is captured and processed into video segments that can be played back verbatim, precisely as the survivors delivered them.

The playback technology enables the survivor to seamlessly answer the question posed and is able to recognize similarities between word patterns in questions and answers.

Words such as “hologram” and “avatar” fail to accurately describe *New Dimensions in Testimony*. What sets it apart is the ability to engage conversationally with the survivor by asking questions that trigger relevant, spoken responses.

*New Dimensions in Testimony* is especially useful to students. Asking questions of a survivor allows students to be active participants in their learning and develop impor-

tant communication and critical-thinking skills.

This engagement – driven by curiosity – imparts an awareness of the Holocaust that goes beyond what students would learn in a textbook. It leaves a lasting impression, making history more relevant to their lives.

An inaugural pilot was undertaken in 2015 at the Illinois Holocaust Museum and Education Center with the first completed interactive testimony of Holocaust survivor Pinchas Gutter of Toronto.

Additional pilots are also being conducted at the United States Holocaust Memorial Museum, CANDLES Museum in Terre Haute, IN, the Sarah and Chaim Neuberger Holocaust Education Centre in Toronto, ON, Canada and the Holocaust Museum Houston. The Museum of Jewish Heritage in New York City will begin pilot starting in July 2017 through the end of the year.

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“With *New Dimensions in Testimony*, we have revolutionized the very concept and definition of oral history, giving the world another tool to guard against cultural amnesia, whose consequences can be cataclysmic. Our invention offers outside groups a blueprint for similar applications of technology to preserve the stories and physical likenesses of individuals whom audiences can interact with forever.”

*Stephen Smith, executive director,  
USC Shoah Foundation*

Museum visitors, docents and students have responded favorably to the Pinchas exhibit. A survey of the Illinois pilot found that more than 95 percent of the visitors agreed that the technology enhanced their ability to connect with Pinchas's story. Stu-

dents from the Illinois pilot were 68 percent more likely to report above average critical thinking ability after the interaction.

“I have found people are less afraid to ask Pinchas questions, because they are not worried they will offend him, which allows for deeper questions to be asked,” noted a museum docent.

*New Dimensions in Testimony* will eventually be available at selected museums and learning institutions around the world to enhance USC Shoah Foundation's mission of keeping voices of the Holocaust and other genocides alive for education and action. The first two museums confirmed for *New Dimensions in Testimony* exhibits are Illinois Holocaust Museum and Education Center in Skokie, IL, and CANDLES Holocaust Museum and Education Center in Terre Haute, IN.

About a dozen survivors have undergone the extensive recording process, which can take from 10 to 25 hours. Everything is now in post-production to meet expected deployment in 2017.

USC Shoah Foundation supports the overall coordination and production of the project, advises and consults partners in collection development, coordinates implementation in a museum setting and works with Conscience Display to develop the interview questions. USC Shoah Foundation will also preserve the video testimony files and resulting meta-data (questions and responses).

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