

Sign Language Avatars: a noninvasive technology to help bridge the gap between the Deaf and hearing worlds

Rosalee Wolfe
DePaul University, Chicago USA
rwolfe@depaul.edu

Abstract

Imagine a world where everyone used a language you didn't understand. This would make simple things like grabbing a burger or dropping off a package a time-consuming process. In serious situations, the communication barrier could become highly stressful or even life-threatening. This is what Deaf people experience every day. This is not just a barrier of sound – it's a barrier of language. Their first language is a signed language. Signed languages are different in grammar and vocabulary from spoken languages. For Deaf communities, written languages are always second languages.

To bridge the communication gap, our multidisciplinary group at DePaul University in Chicago is working on sign language avatars. Our avatar, "Paula", produces 3D animations of American Sign Language (ASL). We are in process of expanding Paula's ability to "speak" other signed languages of the world.

Bio

Rosalee Wolfe is a Professor in the School of Computing at DePaul University in Chicago. After earning a Ph.D. in Computer Science from Indiana University, she was a NASA fellow at the Johnson Space Center, served on various committees of ACM SIGCSE and SIGGRAPH, is a Sony IPAX fellow, and has been selected as a Fulbright scholar for 2020. In 1998, she co-founded the American Sign Language Avatar Project at DePaul University after meeting a Deaf student. The goal of this project is developing an avatar for realistic, real-time portrayal of signed languages. Since then she has supervised both Deaf and hearing students, including the first Deaf woman to earn a PhD in Computer Science. She is always delighted to meet members of the vibrant community of women who have recently chosen Computer Science / Information Technology as their profession.