

WSU News

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WSU professor wins Alfred P. Sloan Foundation grant for work to assist the visually impaired

By Lori Linenberger, WSU Foundation



Darren DeFrain, associate professor of English at Wichita State University, shows off a page of the Vizling app, which will allow users to understand reading materials that rely on visual components to help tell a story or communicate information.

The Alfred P. Sloan Foundation has awarded a grant of \$243,922 to a Wichita State University researcher for his work on an app that will allow people who are visually impaired to read comic books, graphic novels and other digitized graphic materials on their devices.

Darren DeFrain, associate professor of English, and his research partner, Aaron Rodriguez, have developed an app called Vizling, which will allow users to understand reading materials that rely on visual components to help tell a story or communicate information.

DeFrain also has received grants to support his work on Vizling from the [National Endowment for the Humanities](#) for \$100,000 and from the [John See Innovation Award](#), given by Wichita State, for \$11,000. He began working on the app about three years ago with Rodriguez, a former student now completing his Ph.D. at Florida State University.

“What started as a simple series of conversations about how to make graphic novels truly accessible for visually impaired readers turned into an idea for an app that uses a unique approach to help navigate multimodal texts,” DeFrain said.

Comic books and graphic novels are examples of multimodal texts. They include visual clues about where the readers’ eyes should go next. With Vizling, readers use their fingers to touch different areas of the screen to understand the material as it was intended to be experienced. The app is twofold: audio to read words and sensory clues to offer directional insight.

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— Darren DeFrain

DeFrain also intends for Vizling to serve as a platform, similar to Netflix, that provides free access to a library of comics and graphic novels. He and Rodriguez hope the app will be completed by next summer. They are working with WSU’s Training and Technology Team to develop the app and, in coming months, will test it with the help of Envision, a Wichita organization that provides services to people who are blind or visually impaired.

“It’s extremely important for us to make something that visually impaired readers want and not just rely on our own sense of what would be useful,” said DeFrain, who has been a professor at Wichita State for 16 years.

"We're delighted to support the development of Wichita State University Professor Darren DeFrain's innovative Vizling app to help blind and visually impaired people gain unprecedented access to the full richness of graphic novels," said Doron Weber, vice president and program director at the Alfred P. Sloan Foundation. "Sloan's Universal Access to Knowledge program aims to use the latest advances in digital information technology to make the fruits of scientific and cultural knowledge available for the widest public benefit under fair, equitable and secure conditions."

The grant is the first major award to be received from the [Alfred P. Sloan Foundation](#) by the WSU Foundation, which assists Wichita State faculty and researchers in applying for foundation grants.

"Our team is excited to continue building this relationship with the Alfred P. Sloan Foundation," said Angela Dudley, associate vice president of corporate and foundation relations for the WSU Foundation. "Dr. DeFrain's work is just one example of the innovative and transformational research occurring at Wichita State."