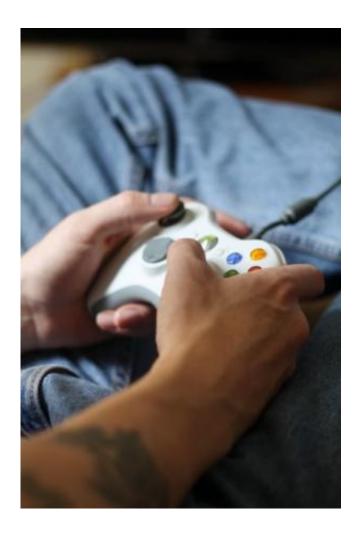# Study debunks gender performance gap in online video games

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Credit: Cristie Guevara/public domain

In the realm of fantasy video games, one epic monster stalks players both online and in the real world—the stereotype that men make better

players than women. A new study led by a researcher at the University of California, Davis, slays that troll.

Cuihua "Cindy" Shen, an assistant professor of communication, and colleagues tracked thousands of players in two multiplayer online role-playing games and compared how quickly men and women moved from one level to the next.

Accounting for differences in playing time, character choice and membership in a players' guild, they found that women advanced at least as fast as men.

"Once you take into account all these confounding factors, the gender differences disappear," Shen said. "There is no gender difference."

Shen has been analyzing massively multiplayer online game data since 2007, studying the connections between playing and a wide range of real-world behaviors.

Many gamers women, but stereotypes persist

GamerGate, the cyber harassment of female gamers and game designers that erupted in 2014, in part led her to look into sexual stereotypes, she said.

"Even though more and more women have become gamers, and more are involved in designing games, gaming communities as a whole are still very hostile toward women," Shen said. "The prevalent stereotype is that women are not as good of players as men."

To test that stereotype, Shen and colleagues at Michigan State University, the University of Southern California, and the University of Illinois, Urbana-Champaign, analyzed data from more than 9,000

EverQuest II players and 2,000 players of a Chinese game, Chevaliers' Romance III.

To identify players' gender, the researchers used the information that players reported when they registered, not the sex of the avatars they chose.

The study, reported in the Journal of Computer-Mediated Communication, is the first to look at how male and female players' progress over time in multiplayer games online.

Previous research has compared men's and women's performances in short, simple games like a car race in lab settings, but Shen said those studies did not account for differences in playing experience or gender preferences for type of games.

The research is also the first to use data from two games and two national cultures.

Shen said the findings hold real-world implications. "Why should we care about this? First of all, games have become a very important realm of our culture. Second, it has become an important entry point for people into STEM-related careers. For young girls, it has become a place for them to become familiar with the tech world."

Females make up about 20 percent of players on multiplayer online games, she said. They are represented in even fewer numbers in the technical workforce.

"We think the stereotype that women are worse players at games could contribute to a self-fulfilling prophecy," that discourages their entry into science, technology, engineering and math fields, Shen said.

By debunking the gaming gender gap, she said, "We might be able to break the stereotype and the self-fulfilling prophecy cycle."

Provided by UC Davis