# dr. victoria braegger Examines Bias in Digital Game Design

Video games have become a major part of everyday life for millions of people. With them come countless questions and debates among fans, but one question that reveals more than most is deceptively simple: “What is your opinion on video game controllers?”

That question led dr. victoria braegger to explore how game design can both include and exclude players. Her research investigates how controllers themselves can reflect and reinforce patterns of gatekeeping in gaming. Through surveys and interviews, she studies how design choices shape comfort, usability, and belonging.

She notes that “we have statistics from before the Xbox was made that show women were at least 43 percent of the game-playing population,” yet design conventions continued to cater primarily to men. That mismatch between who plays and who is considered in design has become a central question in her research.

**Research on Communication and Design**

braegger is an assistant professor of technical communication in the Department of English and Technical Communication. Her research focuses on the intersection of technical communication and game studies, with particular attention to usability, identity, online communities, and design.

She earned a Master of Technical Communication (MTC) from Utah State University in 2019 and a Ph.D. in Rhetoric and Composition from Purdue University in 2024. Since joining Missouri S&T last year, she has shared her work in several formats, including a chapter-length interview published in an edited collection, Historiographies of Game Studies: What It Has Been, What It Could Be (2025).

**Exclusionary Patterns in Controller Design**

braegger’s research examines the origins of the Xbox controller and its influence on how comfort and usability are defined in gaming. She traces this

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back to The Duke, Microsoft’s first Xbox controller, released in 2001.

“The Duke is large,” she explains. “It weighs just over one pound. It is ridiculously big.” Despite its size and limited accessibility, later controllers followed its model—what braegger calls “exclusionary iterative design,” or design based on earlier products that already excluded certain groups.


Xbox controllers from 2001 to 2013: The original Xbox "Duke" controller (top), Xbox 360 controller (middle), and Xbox One controller (bottom) trace the evolution of design across more than a decade. Their similarities and refinements illustrate the iterative patterns that dr. braegger studies in her research on usability and inclusion in gaming.

"Women and marginalized groups have not reached the same levels of comfort or usability that their male counterparts reached with the Xbox 360 controller," says braegger. "And that came out almost 20 years ago."

## Forgotten Contributors in Game History

The story of The Duke also includes forgotten contributors. One of its designers, Denise Chaudhari, the first woman to work on the Xbox, was largely left out of official accounts until resurfacing in a 2018 Twitter thread. Even then, her name has remained absent from many subsequent Xbox retrospectives.

"And so that's kind of where I start," says braegger. "What happened with the Xbox controller, what happened with Denise Chaudhari, and what all of this really meant."

Through this work, braegger continues to examine how design choices shape access and belonging in gaming. Her research invites readers to consider who is included in those designs and whose experiences still remain outside them.

More recent controller design: The Xbox Elite Series 2 controller (2019) builds on the Xbox One model with adjustable components, textured grips, and premium materials, showing how continued refinements in design do not always translate to comfort for all players.