

Hi and thanks for coming to my presentation, “Microsoft as a Microcosm: Intersections of Controller Design and Gamer Identity.” My slidedeck and script are available at the link.

In a throwaway comment to a journalist, a Microsoft hardware engineer once described the Xbox One’s controller as designed for those with “golden hands,” or those who were so hardcore that they were intimately familiar with the minute details of the controller and the miniscule twitches required to be competitive at high levels. The “hardcore” was a not-so-subtle reference to gamer identity: the white, cishet, able-bodied young man that is so often hailed by the industry.

Gamer identity and representation in games and gaming culture have received extensive scholarly attention. But gaming peripherals are often excluded from the conversation. Blomberg (2018) finds that “despite claims to the importance of the controller for the video game experience, the nature of its contribution still remains to be detailed.” They further speculate that controllers are frequently overlooked specifically because they are designed to recede into the process of gameplay. Bagnall (2017), in calling attention to the invisibility of controllers in play, found that representation and critical critique within games was “undermined by the contradictory logics of controllers” that had been designed for a very specific body (p. 140). Parisi (2015) briefly references the effects of the controller’s design on commercial development, noting “Through [the design process], controller designers express preferences for a particular demographic, body types, gender, and even genre” (p. 9).

More attention is needed in what deWinter and Moeller referred to as the “kinesthetic procedures to convey information,” or the physical tools that convey information between player and game. Interactions between video games and players are always mediated by some type of controller—even if the body itself is the controller. Because the major console manufacturers tend to release one standard controller for each console—and innovation is stagnant in this area—a significant user experience (UX) problem arises.

That is where this research study comes in, designed to answer four questions:

1. How is gamer identity reified through hardware design and depiction?
2. In what ways have depictions of controller use and mastery supported understandings of gamer identity and in-/out-groups within gaming culture?
3. How do experiences with controllers differ amongst groups?
4. What recommendations can be generated for a more inclusive controller design process, based on the data available?

To answer these questions, I collected historical documents and industry narratives; interviewed marginalized players; surveyed 300 participants; and analyzed 142 issues

of *Game Informer*, unravelling the complex feedback loop between designer, advertiser, and idealized player.

As you can probably tell, that's a lot of data.

And that's why we're only talking about Microsoft. And not only are we only talking about Microsoft, we're only talking about question 3 and a portion of the survey data. If you would like to hear about the other data, you can find me later.

In October 2022, I distributed a survey on Twitter to collect usability data on controllers produced by Sony, Nintendo, Microsoft, and third-party brands. To determine how different groups view controllers, participants answered demographic information. I asked participants to rate the comfort and usability, as well as their emotional responses to and levels of frustration with each brand's controllers. I used a sliding scale of 1 to 100, with 1 being extremely negative responses and 100 being extremely positive. I am focusing on the 255 responses that indicated they had experience with Xbox controllers. Specifically, we'll be looking at The Duke, Controller S, the Xbox 360 controller, and the Wireless controller.

Initially, I separated the data into three categories: gamer identity, cismale (non-gamer), and women and marginalized. An immediate takeaway is that gamer identity—so often hailed by industry—is exceedingly rare; the white, cishet, able-bodied young man accounted for 14, or only 5%, of the respondents. You can only be 18-24 years old for so long before you age out of the industry's ideal gamer identity. Participants who were 18/19 when the Duke and Controller S were released are now 38/39. Similarly, participants who are the ideal gamer *now* (or when the survey was distributed) may not have been alive when the Duke or Controller S were released. This is reflected in the data: the Gamer identity group rated the Duke and Controller S *substantially* lower in every category than the Cismale (non-Gamer) and Women and Marginalized groups; they also rated the Xbox 360 controller and the Wireless controller higher.

Because the number of participants who fit the parameters for a Gamer category were significantly lower than the other two categories, I made the decision to combine Gamer with Cismale. This had very little impact on the data. After combining the groups, the means changed in either direction by less than one point. As a caveat, I am aware binary groupings often erase nuance. My future plans are to incorporate more splits and collaborate with those outside my expertise. Basically: I'm going to share data with those interested in getting into it about controllers and identity.

I'm going to get in the weeds with numbers, then talk about some takeaways. The data tables include the population size, mean, and gap size.

Comfort

I asked participants to rate their level of physical comfort when handling the controller. Overall, each iteration of Microsoft's controllers are more uncomfortable for women and marginalized players. While both populations found the Duke relatively uncomfortable, this is expected: the controller was large and heavy. This explains why we see large leaps in comfort with Controller S, released only six months after the Duke. Though still large, Controller S was a marked improvement. Controller S was wider, but the slimmer depth made the controller easier to hold. Coupled with the lighter build, Controller S was less fatiguing than its predecessor.

However, the gap between the two populations widens with the introduction of the Xbox 360 controller. While the small gaps with the Duke and Controller S can be attributed to uncomfortable controller design across populations, the same can't be said for the Xbox 360 controller. Cismale participants rated the Xbox 360 controller 12.5 points higher than the Women and Marginalized participants. There was little improvement for Women and Marginalized participants between Controller S and the Xbox 360 controller (+5.83 points), especially when compared to Cismale participants (+14.42 points). Though there is notable improvement for Women and Marginalized participants between the Xbox 360 controller and the Wireless controller (+10.05 points), this population still trails behind Cismale participants when considering comfort.

Frustration

To understand player frustration *with* controllers, I asked participants to rate their level of frustration while handling the controller. Women and Marginalized participants were more frustrated with The Duke, the Xbox 360 controller, and the Wireless controller than Cismale participants and were less frustrated with Controller S. The gap between the participant groups for The Duke is slim, showing a similar reaction to the controller. However, there is a significant gap between participant groups with the Xbox 360 controller and a notable gap with the Wireless controller.

Emotional Response

I asked participants to rate their emotional response when handling the controllers. Women and Marginalized participants viewed each controller iteration more negatively than Cismale participants. While the point gap closed for Controller S, the gap increased significantly with the Xbox 360 controller (-8.36). While Women and Marginalized participants reported a +0.71 positive increase in emotional response between Controller S and the Xbox 360 controller, Cismale participants reported an +8.49 positive increase. For Cismale participants, the small growth between the Xbox 360 controller and the Wireless controller demonstrates stabilization.

Usability

I asked participants to rate the usability of the controller's interface. Women and Marginalized participants found each controller iteration less usable than Cismale participants. Expectantly, each group experienced significant growth between the Duke and Controller S. Cismale participants experienced a growth of +20.60 points while Women and Marginalized participants experienced a growth of +23.01 points. In a familiar pattern, Cismale participants experience significant jumps in positive growth when moving from Controller S to the Xbox 360 controller. In this situation, Cismale participants experienced a positive growth of +12.40 points, while Women and Marginalized participants experienced a positive growth of just +5.44 points.

Takeaways

Women and marginalized participants found Xbox controllers more uncomfortable, more frustrating, and more unusable and viewed controllers more negatively than the Cismale participants. For women and marginalized participants, the current standard controller (Xbox Wireless) has not reached the rating levels of the Xbox 360 controller set by cismale participants—across the board. In each category, women and marginalized participants still lagged behind cismale participants. When asked to rate comfort, women and marginalized participants rated the Xbox Wireless controller 76.82; cismale participants rated the Xbox 360 controller 79.27 and rated the Xbox Wireless controller 85.00. When asked to rate frustration, women and marginalized participants rated the Xbox Wireless controller 58.60; cismale participants rated the Xbox 360 controller 65.07 and the Xbox Wireless controller 64.71. When asked to rate emotional response, women and marginalized participants rated the Xbox Wireless controller 72.86; cismale participants rated the Xbox 360 controller 76.13 and the Xbox Wireless controller 77.59. When asked to rate usability, women and marginalized participants rated the Xbox Wireless controller 82.09; cismale participants rated the Xbox 360 controller 84.64 and the Xbox Wireless controller 87.06. In every situation, the greatest improvements are experienced by cismale participants.

In critically analyzing the data tables, I observed the total gains were similar across the two groups. By subtracting the Duke rating from the Xbox Wireless controller rating, we receive a total improvement score (TIS) for both populations. The difference between the Emotional Response TIS and Usability TIS is less than one point. The difference between the Comfort TIS is -3.79, favoring the cismale participants. Similarly, the difference between the Frustration TIS is -4.24, favoring the cismale participants. This demonstrates a key finding of this research study: by relying on masculine input and perspectives from the first iteration (the Duke), women and marginalized players were sidelined and continue to be sidelined in each subsequent iteration. Though the TIS is similar for both populations, when you start lower, you will end lower.

This is almost expected, when considering Microsoft's own narratives. In iterating for the Xbox Wireless controller, Microsoft was protective of the 360's controller design. Zulfi Alam, Xbox's general manager for accessories, recounted: "We were told, 'Fine, go ahead and invest in this space, but make sure you review and counter-review everything. Make sure you build prototypes up front. **Make sure you get them tested with golden hands.**" Though the "golden hands" terminology was first used publicly when discussing the Xbox One controller, the sentiment remains consistent from Microsoft's design of the original Xbox. In a history of the design of the original Xbox, Takahashi (2002) notes that because the company "focused on listening to 16- to 26-year-old-gamers, it designed a controller for people with big hands." In the twentieth anniversary *Power On!* documentary, original Xbox developer Robbie Bach discussed the controller, stating, "You had to have gorilla hands to work with this thing. It was the industry's biggest controller." The hardware engineering group noted they had used a "human factors ergonomic approach," but "didn't take into account the full range of hand sizes."

The FTC documents leaked the plans for the next controller—and it looks remarkably similar to the Wireless controller. I'll be interested to see how it compares to its predecessors.

Controllers, as technological tools of communication, are the invisible gatekeepers that subvert increased representation within games because they determine not only who is allowed within the space, but who is allowed to thrive within the space. They place a barrier on entrance into the community, defining in-groups and out-groups through their design. Gamer identity persists—at the most integral part of console play.

thank you.