

What's missing in video gaming.

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a sigh of relief. "I found my way back to Earth." Virtual reality (VR) and augmented reality (AR) have the potential to revolutionize the way we teach and learn. For medically fragile and physically disabled students, VR lets them go where they never could in reality. And for behaviorally challenging students, the engagement offered by VR and AR gives teachers a precious tool that opens the possibility of their students learning new, more positive behaviors.

But video games, including AR and VR, also have their dark side. The games that hit the top of the bestseller list are often rife with violently racist and misogynistic stereotypes. In one version of a now-classic game, Grand Theft Auto (GTA), the player might learn that if they stop their car next to a female character, she'll hop in. She's a prostitute; there's an exchange of money for services. If the player then drives around the corner, though, he can simply murder the woman—and the player gets his (or perhaps her) money back. There's the good, the bad, and the ugly when it comes to games and gaming technolo-

gies. While Washington State University teaching and learning professor McMahon and his colleague Jonah Firestone based at WSU Tri-Cities focus on the promise of the good, it's the bad and the ugly that have caught comparative ethnic and American studies professor David Leonard's critical gaze.

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As soon as the students put on the virtual reality headsets in Don McMahon's lab, the exclamations of amazement begin.

Two of the students are exploring Google Earth. One, wearing the goggles, has her hands out, like she's trying to maintain balance. The other lightly grips her classmate's wrist, as if to steady her. "I ended up in Bulgaria!" "You're an international traveler!" "Oh, this is really cool; can I move to France?"

Another student is apparently underwater. "This is terrifying! I'm swimming with sharks!" she says, sounding more thrilled than frightened.

Yet another student is immersed in Space Station Experience. At first, she seems fine: "I'm, like, in a spaceship!" But then she moves and gets lost in space. After McMahon steps in and guides the student's hands to the navigation controls on the paddles she's holding, she heaves

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What does justice look like?

Leonard is one of the first scholars to analyze and kickstart conversations about the stereotypes in video games. As others spent countless research hours trying to determine if the violence in video games resulted in real-world violence, Leonard was asking questions about what games like GTA were saying about urban life through grotesque racial stereotypes.

When his cousin showed him the hidden "trick" about killing prostitutes, Leonard says, "Very little surprises me but I was struck in that moment about how what we're seeing in the video game world would not be seen on TV, on film-and it's interactive." GTA is rated for adults but is often played by children, and thus became one of many pivotal moments for Leonard, a white male who had begun to seriously question the types of representations and narratives available in virtual reality.

"If my understanding of urban life in Los Angeles was simply as a place to play because that's what GTA San Andreas taught me, showed me, impressed upon me," Leonard says, "then the conversation becomes about, 'Well, who is living there? What is their everyday experience like?""

"Conversation" is an important word for Leonard because, he argues, we simply don't have enough of them. At least, we don't engage each other in the uncomfortable conversations about race and sexism that need to be talked through in order to come to terms with the bad and the ugly-not just in video games, but in the real world, too.

"There's a silencing of those voices, of those pleas, of those tears," emanating from the victims of violence and those oppressed by systemic racism and brutalizing stereotypes. "We sandpaper over these issues by ignoring them, or by saying 'look how far we've come' or 'at least it's not this' other bad thing. So it's down to me to say, 'No, things are not so smooth; there are things we need to address.' And it's not me opening that conversation, I am walking beside those who are doing that work."

The Overton Window is the range of what's acceptable to talk about in public. Conversations about sexual assault and harass-

ment were, until recently, mostly silenced; the window was closed. But with the rise of the #MeToo movement, the window has been thrown open and sexual misconduct is now part of an international conversation. And with #BlackLivesMatter, so are conversations about race.

Leonard recently coedited a collection of essays, *Woke Gaming*, that opens the window to conversations about not only racism and sexism in games but what comes after. The collection, Leonard and his coeditor Kishonna Gray write, rose "from the ashes of Gamergate."

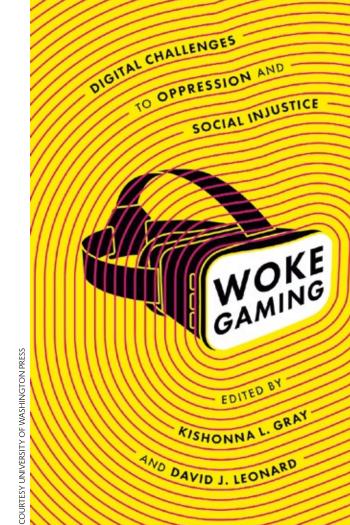
Gamergate began in 2014, when several women involved in the gaming community were targeted with threats of rape and other forms of violence, as well as falsely accused of unethical behavior. Developer Zoë Quinn, in particular, was targeted for "crafting a nontraditional game"-Depression Quest-"and for suffering from depression." Brianna Wu, also a developer, mocked the (mostly, and mostly anonymous) males of Gamergate on Twitter but the tables were rapidly and rabidly turned on her, too, as threats of violence streamed across the internet.

But the threats weren't confined to the net. Both women and others (including Anita Sarkeesian, a feminist video game critic who received multiple sexually charged death threats) were "doxed," meaning personal information, including home addresses and phone numbers, were published on social media and elsewhere. Worse, gamers seeking to drive women out of the field have resorted to "SWATing," making an emergency call to police, accusing their victims of bomb building, hostage holding, or drug manufacturing. SWAT teams show up with sometimes lethal consequences for victims. Fearing for her life, and those of her family and friends, Quinn had to flee her home and cancel public appearances.

All because of a game about depression! But the stakes are high. The video gaming industry is a \$135 billion per year enterprise. Games like Fortnite and the augmented reality-driven Pokémon GO are rivers of cash for their developers, so feeding the expectations of gamers is critical to profits. As Leonard and Gray point out (quoting another scholar), there is a "hegemony of gaming practices that



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'require algorithm-like behavior from players." Anyone who deviates from that algorithm is subject to severe blowback.

The subtitle of *Woke Gaming* is "Digital Challenges to Oppression and Social Injustice." What gaming needs, argue Leonard and Gray, is a move from algorithmic, knee-jerk reactions to games that fall outside the mainstream expectations of what a video game should be, to a conversation about what justice-in games and in the world-looks like.

"For me," Leonard says, "justice is thinking about privilege. Privilege is an unearned opportunity," like being white and male in a culture dominated by white males. But, Leonard adds, privilege is also the freedom to live untroubled by fear and want. As a woman, or a gay or transgender person, or a person of color, justice is "being able to walk across campus at 11:00 p.m. and not fear. It's being able to put on a game and see yourself. It's people living in a world with access to the essentials of life."

But what would that even look like in a gaming industry dominated by the adrenaline rush of committing mayhem at high speeds, as in Grand Theft Auto, Mortal Kombat, or numerous other games, where the play, as Leonard says, is "all about the fight and the edgeof-your-seat suspense?"

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Leonard suggests that "a game that highlights the importance of water and the ways in which injustice, racism, war, and violence become obstacles to having access to water is something I can see," Leonard says. "Games can foster that critical conversation."

Or simply taking advantage of missed opportunities would be helpful, Leonard argues. "A war game only shows the field of battle. The only thing is your character or your infantry fighting an enemy. The worst that might happen is that your character might die-and then you just start over." But what if, to get your "health score" back after being wounded in action, "the game takes you to the hospital for rehabilitation for six months." Even if the recovery hiatus were a short, animated interlude, the consequences of violence would be exposed and laid bare for further consideration.

"There is nothing about what happens to that soldier when their tour is over," Leonard emphasizes. "What happens to that soldier in terms of PTSD? Neither do we see that family living in Baghdad-what we see are abandoned cities," like the city-center playgrounds of GTA. "We don't see those who are living alongside war" just as we don't see the urban families working, teaching, learning, playing, and loving.

If our consumption of media were neutral and without consequence, none of this would matter. But all media, including video games, Leonard says, "shape our opinions about war," about romance and sex, about who gets to do what to and with whom. "So we can think about the ways that video games tell stories and then erase so much about the story."

Challenging the seript

Stacey Hust, a WSU professor of health communications, together with her colleague from the Department of Human Development, Kathleen Rodgers, uses scripting theory to shed light on the ways in which media consumption shapes our views of gender, sex, and romance. Scripting theory argues that we assign meaning to feelings of sexual attraction and other physiological sensations through culturally constructed scenarios; in other words, we explain why we feel what we do through interactions with peers and media.

"Video games," says Hust, "like other media, largely promote traditional gendered scripts in which men are shown as dominating and sexually aggressive and women are shown as sexual objects."

Exactly how video games shape and script our ideas about sex and violence is the subject of heated debate in academic (as well as parenting and policymaking) circles. But one thing is clear: over the past couple of decades, a body of research supporting the contention that violence in games begets violence in the real world has grown. A 2010 analysis, for example, of previous studies of the relationship between game violence and real-world behavior found that the connection is incontrovertible. The paper's epigram quotes Nina Huntemann, a video game scholar, who points out that when you're playing, "you're not just moving your hand on a joystick, but you're asked to interact with the game psychologically and emotionally as well. You're not just watching the characters on screen; you're becoming those characters."

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Ninety percent of kids in the United States play video games (which rises to 97 percent of children ages 12-17), and 90 percent of those games include mature content, including violence. Manhunt, Thrill Kill, Gears of War: the titles speak for themselves.

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By 2016, and in view of mounting evidence of the correlation between violence in games and aggressive behavior, both the American Psychological Association and the American Academy of Pediatrics began advising parents to not allow children and teens to play violent video games.

As Gamergate shows, though, it's not just the games that contribute to socially maladaptive scripts; it's the culture of the gaming community itself that is often victimizing or ostracizing girls, kids of color, and gender nonconforming people. Games like Fortnite are played online, often with thousands, or even millions, of players at once. Game-associated chat systems allow players to collaborate and strategize together, but also to bully players who, for whatever reason, are deemed socially unacceptable.

Teaching tech

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As dire as this culture of hyper-violence, misogyny, and racism appears, there is a flicker of hope among scholars and developers.

As Hust points out, "Video games allow for the exploration of gender roles and gender identity in a virtual space as the player can choose an avatar that is not the same as his or her biological sex. Additionally, some video games provide an alternate script for women as they include physically strong female avatars who often complete the same tasks as male avatars. Oftentimes, these female avatars are sexualized, however."

It's that flicker that keeps Leonard thinking critically about gaming and pushing the conversation. It's like hip hop, he says, the music he grew up with. "If we say that hip hop is sexist by defining it by what has the most visibility, then we miss all the artists who are redefining the genre." If all we hear are Jay Z or Snoop Dogg, then we miss, for instance, Aesop Rock, whose rapped vocabulary vastly exceeds Shakespeare's.

"Same with the gaming community," Leonard says. "Gaming is not only 'over here,' it is a large diverse community dreaming and realizing what scholar Robin Kelley called 'freedom dreams.' Gamers cut across communities and gamers want different kinds of games that do different kinds of work that inspire different kinds of imagination-that is a step forward!" Which is one reason why he and Gray edited Woke Gaming.

"We challenge the idea that there is a core gamer community that wants a particular kind of game. But we still need to have a critical conversation about why we find joy and pleasure in committing acts of virtual violence."

Without dismissing the prevalence and demonstrably malign influence of negative social tropes in games—"there's a lot of that!"— Firestone, like his College of Education colleague McMahon, sees gaming as full of teachable moments.

Firestone has a historical perspective that helps put gaming technologies, and their uses and abuses, into perspective.

"Technology has always met resistance," he says. "Socrates against writing!" As Plato sat at his feet, writing down what the wise guy said, Socrates warned that writing would rot memory and leave us unable to recite the oral literature of the *Iliad*, the *Odyssey*, and other culturally important works. "The printing press-civilization ends if everyone knows how to read!" Especially, the argument went in Gutenberg's day, if everyone can read the Bible for themselves. "And if you stick your kid in front of a TV for eight hours a day, and think they are going to learn something—you *are* going to be damaging that child. But if we approach technology in a systematic, thoughtful way, it can be useful."

Firestone and McMahon are especially interested in "educational hacking." How do undercompensated teachers in underfunded schools engage and teach kids in an equitable way?

"Every student should have a great educational experience," says Firestone. But, given linguistic, cultural, behavioral, and accessibility differences, that simply wasn't possible until recently. Special education programs segregated certain students from the standard-ability ones, for instance. That stretches resources (teachers' time and classroom space, for instance) to the breaking point for many communities.

Now, Firestone says, technology is beginning to change that. "WSU is invested in culturally responsive pedagogy, the idea that instead of saying a student has a deficiency because of X, Y, or Z, and we need to fix it, we want to understand that student's strengths, their background, what do they have that they can bring to the table, and how we can use that to educate everybody."

Part of that cultural sensitivity might be getting teachers to visit students at home to see how they live. But that, Firestone points out, is a big ask of already time-challenged teachers.

"I can loan a 3-D camera to a student. They can use that to create an immersive home-visit experience that can be brought back to school and shared with everyone." If empathy is, in part, imagining a walk in another person's shoes, then VR helps literalize that experience in ways multiple participants can share and discuss.

"Those cameras," Firestone says, cutting to the bottom line, "are not that expensive. And AR and VR are on everyone's phones already." While emphasizing that "this stuff in no way replaces classical learning techniques, lectures, reading, writing, labs," they do open up possibilities "that have never existed before."

Indeed, what Firestone and McMahon advocate is in some sense a return to that most basic of pedagogical goals, the teaching of inquiry. "The way you read a picture book to kids," Firestone says, "is to ask, 'What happens next?' That's how you model inquiry for kids. So you don't want to leave them—or anyone—to their own devices."

Firestone, Leonard, Hust, and Rodgers-they all land in the same place. We've got to talk to each other about the issues we all contend with, and we need to talk especially with our kids, whether about race, relationships, violence, or privacy in a digital world.

Leonard talks about growing up with games and now playing with his child. Where once parents were advised to monitor their kids screen time and what they were watching on TV, "now it's what are you playing with your kids? And are you talking about what is being





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represented? And if you're a father, are you only playing with your son? Are you assuming your daughter doesn't want to play? And are you assuming your son *does* want to play, because maybe he doesn't."

If approached thoughtfully, most games, even violent, sexist ones, contain teachable moments. For McMahon, it might be a few minutes of AR basketball: "Play for five minutes, generate some numbers, and work on mean, median, mode, or other math lessons." For Firestone, it might be Monopoly or some other board game, ancient or modern, around which he can build a lesson and a curriculum.

But all this takes assessment, research, thoughtful consideration-and lots of conversation. McMahon says that the number one thing he needs are graduate assistantships; it takes a small army of grad students to do the time-intensive research that puts data behind assumptions about what works or doesn't.

"A lot of things get packaged and sold to schools. That's why we do research," Firestone says. "A VR program about cellular biology might look good, but has it been tested? Does it actually teach? I'm a big proponent of technology, but I'm an even bigger proponent of assessing that tech."

Otherwise, we end up with pretty pictures or, worse, distracted students full of misconceptions about how the world works. "The goal of my research," says Firestone, "is to make situations which are normally difficult to understand relatable."

For Firestone and McMahon, that might be geologic time, plate tectonics, evolution, or the nature of scientific inquiry itself. For Leonard, gaming might teach us about histories of racism, gentrification, environmental injustice, or the cost of war. For Hust and Rodgers, gaming might open up avenues of exploration to better understand how gender scripts are not biological destiny.

"This is why," Leonard says, "diversity is important. Technology is created by people. People bring their ideologies, identities, beliefs, their prejudices into the creation of tech, their understanding of who the market is, who the gamer is. If the programmers are not only all of a particular demographic but also bathe in privilege-what sort of world are they imagining?" 🔆

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