

**A report from the Center for
Technology and Society:**

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Designing Ourselves:

Identity, Bias, Empathy, and Game Design

ADL Belfer Fellow Dr. Karen Schrier



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INTRODUCTION

A review of recent research and game design practices.

We looked at the intersection of games, identity, bias, empathy, and perspective-taking. We also created a guide based on recent research and design practices. The guide can be found at:

www.adl.org/media/12529/download.

GAME JAMS

A brief overview of our game jam events.

We tested the guide at a series of game jam events around the United States in fall 2018. Our theme for these events was identity. All games can be found on the 2018 ADL game jam's Game Jolt page at

www.jams.gamejolt.io/adljam.

A **game jam** is a rapid prototyping event that typically takes place over a few days or a weekend, where game developers are given a theme and need to develop a game within the time frame.

RESEARCH OVERVIEW

A brief summary of our research findings and recommendations.

We conducted research on the game jam events. Our report provides an overview of our findings and recommendations for those who are game developers, educators, and those creating game jams for empathy-related topics.

APPENDIX

Additional resources and definitions.

1. INTRODUCTION

Can we use games to help people better connect with themselves and with others? Can we use game design to support perspective-taking, compassion, and care?

It may be surprising to hear that games—of all things—can help **support** connection and compassion.

Particularly when we often hear quite the opposite. Games have become well-known as communities where toxic behavior, such as bullying, harassment and hate occur. Just like other online social platforms, such as Twitter or Facebook, online environments such as *Twitch* (an online platform where players livestream games), and *Fortnite*, *Overwatch*, *Apex Legends*, and other competitive games have been sites of bullying, harassment, racism, and antisemitism. The ADL found that 47% of daily Twitch users have experienced harassment, as well as 36% of frequent Discord users (an online communication platform frequently used by game players). This compares with 37% of daily users of Facebook.ⁱ

Moreover, as in the case of all media, whether books, film, or television, the content of games may also be problematic—such as having racist, sexist, and prejudiced representations of characters and storylines. And, sometimes how a game is used is problematic. Recent games have stirred controversy, such as the *Rape Day* game, which involves players raping virtual women during a zombie apocalypse (and ended up not being released on Steam after an extended controversy).ⁱⁱ Likewise, players of Rockstar’s *Red Dead Redemption II* shared videos of themselves killing of virtual characters supporting women’s right to vote in the game.ⁱⁱⁱ Many game-related communities have been rife with harassment, and even violence, such as the GamerGate community, as well as communities within games, such as in some social virtual reality (VR) environments.^{iv}

On the other hand, games and gaming have also been seen as aspirational and innovative. Recent reports lauded game players as “more likely to get a job” and have marketable skills.^v Top trends such as gamification (applying game-like features to non-game contexts) speak to a desire for even non-game designers to draw on the benefits of games and incorporate them in healthcare, education, and corporate environments (with varying levels of success). Games are also increasingly being used in the classroom and for learning purposes, with 74% of K-8 teachers using games and 55% of teachers using them at least once per week.^{vi} And, games are extremely popular and a \$135 billion industry.^{vii}

Game Stats

64% of American households have a member that plays video games for three or more hours per week.

In **2017**, the average age of a gamer was **34**, and there were more gamers over **36** than between **18–35** or under **18**.^{viii}

Entertainment Software Association, 2018

However, games and game communities are not all bad or all good—they are much more nuanced than that. Just like all communities, they can support cruelty and toxicity, as well as compassion and care. We have found that some games, under certain conditions, can provide insight into humanity, including different identities, perspectives, emotions, and ways of solving problems. They can enable players to experiment with their own or other’s identities, they can enable empathetic interactions with other players, and they can immerse players in new worlds, systems, and mindsets. Games can serve as a way of opening conversations with young people about what matters to them and why.

For instance, some games express personal narratives or let you play as the role of another and perform their story. *That Dragon Cancer* gives you a glimpse of what it is like experiencing a family’s grief over their young son’s cancer. A mobile game, *Liyla and the Shadows of War*, shows what it is like for a family living in the Gaza strip and dealing with war and violence. The analog role-playing game, *Rosenstrasse*, lets players make ethical decisions and relive a moment in history (which involved non-Jewish women protesting the imprisonment of their Jewish partners in Berlin under the Reich). *When Rivers Were Trails* explores the impact of U.S. policies on indigenous communities, while also sharing stories of the Anishinaabe people.

Perhaps better questions, then, are not whether games are universally bad or good, but under what types of conditions, and with what types of designs, can we use games (or the process of creating a game) to encourage perspective-taking, support prosocial behaviors, and even reduce hate and bias? This type of research is new, innovative, and only just beginning to emerge. In this paper, we begin to grapple with these questions, and we encourage even more research to be conducted in this exciting field.

In this report, we will review:

1. Recent research at the intersection of games, empathy, perspective-taking, identity, and bias.
2. Information about our series of identity game jams.
3. An overview of research we conducted on game jams and identity. This includes best practices for game developers, game studios, educators, and game jam organizers.

An image from “When Rivers Were Trails,” courtesy of Dr. Beth LaPensée >>



Identity and Games

Playing games, designing games, and engaging in game communities are all ways people can express their identity, reflect on their identity, as well as shape and refine their identity.^{ix} Games may be ways that players gain confidence and feel more self-efficacy in their identity (or belief in themselves and their abilities). On the other hand, in games, people may feel less belongingness, more exclusion, and less comfortable with their identity, depending on their experiences.^x

What are some specific ways that games can support identity exploration? One, players can express their identities by customizing a game to their preferences and interests. For instance, in some games, such as *The Sims Mobile*, *Soul Calibur IV*, or *Fallout 76*, players can customize their character in the game, or avatar, by changing skin tones, hair color, clothing, or even by adjusting body type or sculpting one's facial features. While players may alter their avatar to look like them or to express a physical part of their identity, they may also choose to create someone who does not look like them at all.

However, the types of features that are available in a game can be inequitable, suggesting how bias can affect games in subtle and explicit ways. For instance, we can think about the design decisions that led to Ubisoft's *Far Cry 4* and their decision not to include a female avatar. Or, we can consider how the designers of *Valley of the Gods* tried to accurately represent type 4 hair (characterized by tightly coiled hair texture), a hair texture type that is rarely included in games.^{xi} Who or what gets included ends up affecting whether a person can express their identity fully through a game.

Two, game players may have other opportunities in games to express identity—such as through the behaviors, choices and actions that players may make in a game. For instance, in games such as the *Mass Effect*, *Walking Dead*, or *Fable* series, players make ethical choices that can shape their character's role, the types of friends or foes they make, the world they

inhabit, and the stories that get told. Avatars, and their players, may also grow in their expertise, such as by being better at using weapons, magic, or interacting with other characters (charisma).

In other games, such as *World of Warcraft*, players may take on a type of role, such as that of the healer, warrior, or mage, and then work with others to complete quests together. In *Overwatch*, which character or “hero” a players choose to play may relate to their desired role, such as that of the Damage hero (which includes offense and defense characters), Tank (high damage, front-of-the-line characters) or Support (healing and preventing death).

Likewise, just as which game characters a player plays as may speak to their identity, which games players play may also speak to their identity, as it reflects their interests, motivations, and play styles. How a person communicates their interests in games, just as other hobbies or leisure activities, also expresses aspects of who they are and what matters to them.

Games can also serve as springboards for conversations around identity. Paul Darvasi teaches at an all-boys private school in Toronto, Canada. He worked with Matthew Farber and iThrive, an organization that supports the use of games for social and emotional learning, and created a curriculum (“Museum of Me”) around the game, *What Remains of Edith Finch*.^{xii} The game explores the identities and stories of members of the Finch family, particularly through the rooms where they lived and objects and curiosities that remained there. The students in Darvasi's class created a final project based on the game, where they curated objects and artifacts from their own lives, and even created collages, websites, and games that expressed their identities. Darvasi explains that he learned more about his students, and shared more about himself, through the assignments surrounding this game.

An image of “Rosenstrasse,” courtesy of Dr. Jessica Hammer >>

Games can also help make identities that are less familiar to players, more familiar.^{xiii} Through games, players may also become more open and comfortable with people who are different than themselves because they have the opportunity to interact with other types of people. Researchers found that a white person playing as a black avatar can possibly lower biases,^{xiv} as well as raise them,^{xv} depending on the game's design, people's preconceived notions, and the context of its use.

Thus, on one hand, games may reinforce biases, stigma, and self-efficacy.^{xvi} On the other hand games may be ways to better understand another's identity and explore the biases another identity may face. For instance, in *Mission US*, players take on the role of different (fictional) people from history, such as a Cheyenne boy in the 1880s, 14-year-old female slave in the 1840s, and young Jewish immigrant in the early 1900s. Through playing as this character and making decisions for them, players start to see the challenges and biases they face, and the complexities of embodying that identity during that time period. Another interactive experience, *Parable of the Polygons*, shows how individual biases may help to create systemic bias. It uses simple colors and polygons to explore the biases embedded in dynamics systems.

Finally, gaming communities are ways that participants may be able to express their identities as well as get to know other types of perspectives. In gaming communities, people may better understand themselves through interactions with others, just as a person would in a real-world or non-game community, such as a classroom, troop, or peer group. For instance, Dr. Gabriela Richard studies identity formation in online, maker, and livestreaming communities.^{xvii}

However, game communities and games are not always welcoming to all identities, and not everyone equally feels like they belong or are represented through games or in the game design profession. We should continue to find ways to enable all identities to feel they can fully access games and express themselves through them.^{xviii}



Identity includes the qualities and views of a person that makes them unique. Identity is a lens by which people interact with others and the world. It is made up of many parts, including age, race, and profession.

- **Age**
- **Ethnicity**
- **National origin**
- **Gender**
- **Gender identity**
- **Gender expression**
- **Race**
- **Religion**
- **Sexual orientation**
- **Profession/skills**
- **Abilities**
- **Socioeconomic class**
- **Hobby/pastime/activity you enjoy**
- **Family structure / parenting status**
- **Language(s) spoken**
- **Political beliefs**
- **Social relationships**
- **Community/geographic location**
- **Volunteer activity**
- **Ability and disability**
- **Health (physical and mental)**
- **College, school, or alumni affiliation**
- **Types of games, music or other arts**
- **Many other things too!**

Empathy, Perspective-Taking, and Games

While games may help us to connect with our own identity, and learn about different identities, does it also support the practice of empathy?^{xxix}

Empathy relates to a number of skills that are useful for connecting with others, reducing our negative judgements of others, and helping us better understand each other. These include skills such as perspective-taking, communication, listening, interpreting one's and another's emotions, caring about diverse voices, and having respect for others.^{xx}

Games may be able to support the practice of empathy and related skills, though there are limitations as well. Some games may immerse players in brand new worlds, such as the fantasy world of *Skyrim* or *Morrowind*, or a virtual version of our own world, such as in *Grand Theft Auto* or the past, such as the *Assassins Creed* series. Like our own world, many of these new virtual worlds are problematic, and show different parts of humanity, including cruelty and violence, as well as love and compassion. Games may enable the practice of empathy-related skills—even if these games may also support antisocial interactions. For instance, by playing *Red Dead Redemption 2*, I developed a greater understanding of the tensions in the United States during the turn of the 20th century, particularly surrounding what it means to be free (whether it is about following laws, or living a lawless life based on one's own group's loyalties and ethics). On the other hand, as mentioned earlier, the game could be used to shoot at suffragette characters who want the right to vote, and the game rewards the killing of law enforcement during some missions and challenges.

One way that games may help players practice empathy-related skills is through perspective-taking.^{xxi} To support this in a game, players may hear differing

perspectives from other characters, or they may even try out new mindsets by playing as a character very different from themselves. In *Quandary*, for instance, players need to solve problems for a new society, Braxos. To do this, they need to listen to different members of the society and sift through evidence to decide what to do. Players also may develop perspective-taking by playing with other people. In the board game, *Pandemic*, players need to collaborate to contain the outbreak of a disease. Players need to listen to each other's strategies and work together to figure out the best course of action.

Games may also enable players to take on different roles or identities, and communicate with people from other types of cultures, perspectives, or backgrounds. In the game *Way*, players need to anonymously collaborate with another player to complete puzzles, but they cannot speak and must instead use their avatar to gesture to the other player.^{xxii} In the virtual reality game, *Keep Talking and Nobody Explodes*, players need to communicate to defuse a bomb. One player can access the bomb through a VR headset, while another group of players has the manual and needs to walk the player through how to defuse it.^{xxiii}

On the other hand, no game can enable a person to completely inhabit someone else's life, or truly understand what someone else has gone through. Moreover, taking on another perspective through games can be problematic and even harmful. Researchers suggest that taking on another perspective can sometimes spur stereotypes, or even increase stigma toward another group. Taking on another perspective in a game can be akin to what Lisa Nakamura calls "virtual tourism," where players may try on another identity, without fully respecting their identity and understanding their truths^{xxv}. But, is perspective-taking of another's identity disrespectful or even a form of violence? If we take

another perspective in a game can be akin to what Lisa Nakamura calls "virtual tourism," where players may try on another identity, without fully respecting their identity and understanding their truths^{xxv}. Moreover, is perspective-taking of another's identity disrespectful or even a form of violence? If we take on another perspective, we cannot be assured that we are accurate in knowing what the perspective is, as it is really what we think the other person is thinking. ADL explains that simulation activities to teach about historic atrocities, where players take on identities, such as that of Nazis, or slaveowners, may trivialize victims' experiences, reinforce negative views toward victims, can encourage identification with oppressors, and can be emotionally upsetting to the participants ^{xxvi}. Thus, empathy may be problematic and perspective-taking may even cause more anxiety and further stereotypes.^{xxvii} What should we do about this? One, educators and designers need to be mindful of the strengths and limitations of perspective-taking exercises. Another strategy may be to have participants engage in conversations with people who have different perspectives, and continue to listen to their views and learn what they are sharing.^{xxviii}

What is empathy?

Feeling what another is feeling or going through.

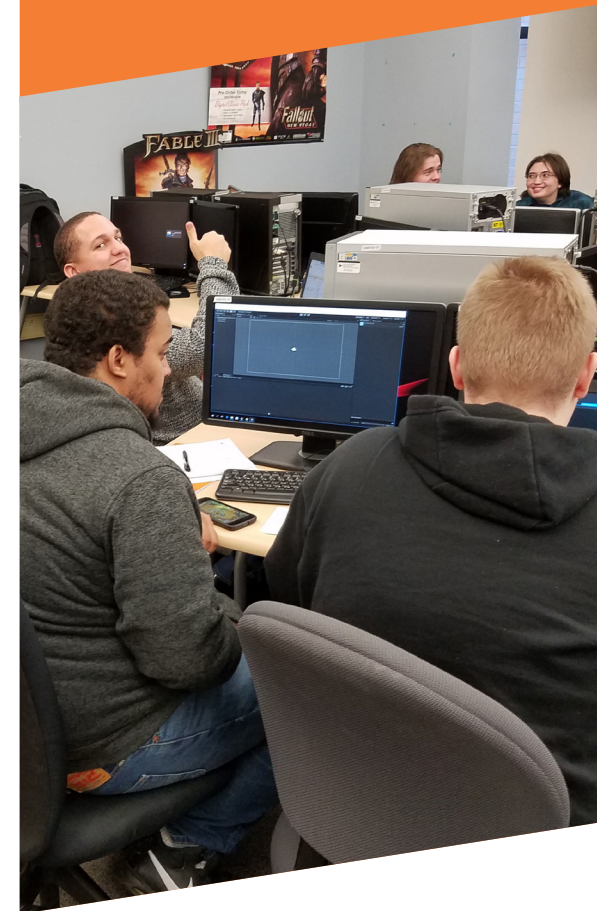
What is sympathy?

Recognizing what another is going through.

What is compassion?

Understanding someone else's feelings and wanting to reduce their suffering or pain.

As Aviles (2017) writes, "If one reason individuals self-segregate in the physical world is because they have no prior experience interacting with diverse individuals, the virtual world can be a safe place to gain this experience and lead to further contact in the real world. In addition, virtual contact with diverse representations of users may be enough to enact the positive qualities associated with contact in the physical world."^{xxix}



Design Principles Related to Empathy and Perspective-Taking

The following are a few possible game elements to use in games to better support the practice of empathy and perspective-taking. While not all games may have these elements, and they may not be effective in supporting empathy, they are a good starting point for thinking about how games can support the practice of empathy-related behaviors and skills.^{xxx}

Role-playing or taking on a role:

By taking on a role of someone unlike oneself, players may feel more connected to their story and more open to understanding and accepting their perspectives. They may also be able to experiment with different types of mindsets, perspectives and moral styles.

Avatar creation and customization:

Being able to customize one's avatar might help players express their own identity and become more accepting and confident in who they are, and how they relate to others. They also may be able to experiment with other identities.

Interactions with NPCs (non-player characters):

Through playing alongside virtual characters or non-player characters (characters not controlled by a human being), players can form bonds with them. They can even care deeply about evocative objects (like the Companion cube in *Portal!*). Building relationships with characters help players practice care and compassion, as well as listening skills.

Exploring virtual worlds:

Many games allow players to explore virtual worlds, and consider how their interactions affect the world and its people (both virtual and real). Being able to inhabit a new world helps us to understand ourselves and our own worlds as well.

Communication with others:

Some games support communication with other real people, such as by needing players to rely on others to complete problems and missions. This further connects players and requires them to practice important communication skills.

Choices and consequences:

In some games, players are asked to make meaningful choices, such as choices that are either personally important or integral to the game's play. Then, players need to also grapple with the outcomes or consequences of their choices, which helps them to think through further choices and behaviors.

Opportunities for reflection:

Players may have opportunities in some games to reconsider their decisions, revisit their feelings, as well as the feelings, experiences, and perspectives of others.



Bias and Games: An Overview

A core tenant of ADL's work is the concept that bias is universal and that everyone has biases. A person can have biases about someone's identity, such as gender or race, how someone behaves, or even about the types of games that someone plays or the games that someone creates. People may not even be aware of their own biases, as some biases are implicit in nature, and not consciously applied, while others are more explicit. Playing games can even reveal people's biases. In the card game, *Buffalo*, designed by Mary Flanagan and the Tiltfactor Lab, players make rapid connections among cards such that their biases begin to emerge.

Bias, empathy, identity, and design are all interrelated. How someone feels about their own identity may affect how they handle others' biases toward them, as well as the biases they may have about other identities. People, for instance, may be more open to taking on the perspective of those who are more similar to them—those in their "in-group." They may feel more distant and less familiar with those they deem in an "out-group." One way to reduce biases is to encourage people to connect with others, particularly those from "out-groups," and become more familiar with people who are different than them. For instance, in *1979 Revolution: Black Friday*, players take on the role of a person involved in the events leading up to and during the Iranian Revolution of 1979, which helps make the perspectives, history, and culture more familiar to players.

Biases are also embedded in design itself—whether of a learning experience, game, or anything that a human has created. Biases are even in the algorithms that drive online platforms, such as those behind Facebook and Twitter. This means that biases are embedded in platforms that rely on these algorithms, and their design affects everything from facial recognition to search results, and the types of content people see or the friends they make. The algorithms reflect broader social biases, which end up replicating and even furthering social inequity and systemic oppression^{xxxi}.



ADL'S ANTI-BIAS EDUCATION WORK

ADL EDU offers anti-bias and bullying prevention training and educational content with the ultimate goal of challenging bias in ourselves, others and society. At the foundation of these programs are these core concepts: bias is universal; bias and hate escalate and can be interrupted; and diversity is a strength.

ADL's anti-bias framework within which skills and knowledge are developed includes:

Identity: Explore and understand the many dimensions of personal and group identities including cultural identity and values;

Differences: Interpret differences and how they impact communication, understand the language of bias and the power of language to perpetuate bias;

Bias: Recognize and acknowledge bias within oneself, others and within institutions and to understand the impact of power and privilege on individual attitudes and behaviors.

Action: Develop the ability and skills to challenge bias in themselves, others and society by developing and putting into practice situationally appropriate responses.

Of particular relevance for related to games and game design are ADL's anti-bias activities that focus on identity and aim to:

Develop awareness of the multiple dimensions of personal and group identities,

Identify experiences that have consciously and unconsciously shaped identity and assumptions about other people and their world view.

Increase understanding of the links between identity and bias.^{xxxii}

Recent Research on Bias and Games

How do we impact biased attitudes and behaviors? Can we use games or even the process of game design to help reduce biases? The question of how to reduce the impact of bias is very complex. The following are some recent research findings on how games may support or not support bias reduction^{xxxiii}.

SOME WAYS GAMES MAY SUPPORT BIAS REDUCTION:

Games can serve as part of anti-bias training. Both analog and digital games can be included as part of an in-person or virtual training session. The ADL’s anti-bias teacher training includes gameful interactions, such as “Things in Common,” a game where players need to find things they have in common under time pressure. However, how the game is designed and used matters, and not all games are effective.

Games can encourage perspective-taking. Games can support intergroup contact and perspective-taking, which can reduce biases about other people, improve attitudes toward people who are marginalized, and strengthen connectedness.

Games can enhance collaborative problem solving. Games can motivate players to trade knowledge, interact around topics of interest, or solve problems, which can encourage connections among different groups, and encourage a sense of belonging for a community.

Games may enable identity exploration. As mentioned earlier, players can grapple with their identities, and others’ identities, through games. It can also affect one’s biases. Who someone plays as (such as their avatar) may affect their biases. For instance, in one study, those who played as a black man rather than a white man had more positive attitudes toward black men. The game’s content and design interacts with this, however. In a violent video game, researchers found that playing as a black avatar enhanced negative beliefs toward black people^{xxxiv}.

GAMES ARE ALSO LIMITED IN THEIR ABILITY TO SUPPORT BIAS REDUCTION. HERE IS SOME RESEARCH TO CONSIDER:

Biases are complex. “Biases and biased behavior are highly complex and dynamic, and require similarly complex and dynamic solutions. Can any intervention, whether a game or not, even reduce biases and change behavior?” Research on all interventions for bias reduction are contradictory and often depend on the people involved, the context, and other factors.

Games can spur and embed biases. Games may even do the opposite, and enhance biases. Games, just like other designed experiences, embed and express the systemic and individual biases of their time and place. The communities around games may also propagate biases. Players enter a game with their own biases, and this affects how they may play the game and how it affects them. “Just the fact that we are using a game to try to reduce biases is a type of bias in that it suggests that games may have value in this way.”

Games need to be ethically evaluated. We need to reflect on the ethical ramifications of our games. What does it mean to take on others’ perspectives through games—are we really acting as “virtual tourists” or culturally appropriating another, when we play as other roles in a game. We need to understand the ethics of embodying people from marginalized backgrounds and then being able to slip off that identity. And, what happens when we take on the roles of egregious or unethical people? How do we take into consideration how people want to transform through a game, rather than trying to make them change in some way?

The practice of empathy itself is limited. There are limitations to empathy and games. Being in “another’s shoes” may negatively overwhelm someone, which can raise anxiety and make them less willing to interact with people who are different from them. Perspective-taking can “backfire” when a person feels threatened and may be different depending on one’s culture. Perspective-taking can enhance connection but increase misunderstandings of others and the use of stereotypes about others.^{xxxv}

Useful Definitions

Biases:

An “inclination or preference either for or against an individual or group that interferes with impartial judgment.”^{xxxvi}

Explicit bias:

These are biases that are more deliberately applied.

Prejudice: A systematically unfavorable attitude or belief toward a specific group of people.

Stigma:

Stigma is a mixture of “stereotypic beliefs, prejudicial attitudes, and discriminatory actions” directed toward any specific group of people.

Implicit bias:

These are biases that are less consciously applied.

Stereotypes:

Automatic and (often) evaluative judgments of a specific group (e.g., a gender or racial group as being associated with particular characteristics).^{xxxvii}

Discrimination:

The “operationalization” of these prejudices in the form of negative actions and behavior toward that group.

For further information on all of the research on the previous page, please see, Schrier, K. (2019). “Reducing Bias Through Gaming,” *G/A/M/E Journal*.

www.gamejournal.it/reducing-bias-through-gaming/.

What is a Game Jam?

A **game jam** is an event where people come together to make games in a short amount of time (typically between 24 and 48 hours).

At game jams, people can have very different levels of expertise, from novice to expert. Some are very experienced, professional game developers, and others are hobbyists. Game jams typically have a theme, which is the target topic for the games that are being created at that event. For instance, previous Global Game Jams have had themes such as “Transmission” or “Waves.”

For the game jam we created, **our theme was Identity.**

Constraints are integral to design. Constraints are the boundaries to the stated “problem” or “need” that we need to design **for** or **around**. You design **FOR** something else, whether person, place, or thing.

Game jams pose a specific “problem” or series of constraints for game designers to design for, in a set amount of time. Time, resources, and people’s prior knowledge, skills, mindsets, abilities, and experiences are all parts of the constraints of the design. The theme of a jam is also a constraint.

We can conceive of a game jam as **a type of learning process or experience** as well. Designers learn how to work with others, design games in a short period of time, and also learn about making trade-offs given the limited resources. Designing any type of learning experience—even a game jam—requires a consideration of the goals, constraints, and affordances, as well.

Game jams are also starting to be used for social and emotional learning, social impact, bias reduction, and empathy-related issues. On the next page, we share some inspirational game jam events.

Global Game Jam is an international organization that hosts a game jam across thousands of sites during the same weekend in January; however, they also co-host other jam events throughout the year.



Game Jam Inspirations



iThrive has hosted a number of empathy game jams. In September 2017, they hosted one in cooperation with DigiPen Institute of Technology in Seattle, WA. This past year, they hosted a game jam around mental and emotional health in Montreal, Canada. They found that using game jams helped foster engagement around using games for social and emotional skills, and also more mindfulness about how games represent different concepts and issues, such as mental health is represented in a game.

iThrive is a nonprofit organization that aims to “create meaningful opportunities for teens to enhance the knowledge, mindsets, and skills they need to thrive across development, to engage actively in their learning and in their community, and to be healthy.” (<http://ithrivegames.org/>)



Games for Change has hosted a series of student challenges or mini-game jams, around different themes. For instance, in January 2019, they hosted a game jam at the NYC Public Library around the theme of gender equity, diversity and inclusion. They also hosted game jams in Atlanta around themes such as “Disrupt aging” and “Endangered species.”

Games for Change is a non-profit organization and a community that is interested in using games to support social change and social impact; it is also a type of game that focuses on making meaningful social, political, civic, or educational change. (<http://www.gamesforchange.org/>)



Common Circles hosted a two-day anti-bias workshop, including a game jam, in 2018. The participants were a mix of high school students from a number of different types of schools in St. Louis - urban, rural, suburban, public, private and charter. They also worked with local executives and game designers. Participants did a series of game-based exercises relating to identity, unconscious bias, and game design, which included learning techniques from psychology that have been proven to increase empathy and decrease bias. Then they were asked to work in groups to create games that they would enjoy playing, and that would also help them to explore issues of identity and bias. One of the games they developed is called Common Threads, where players reflect on their identity, recognize commonalities and examine biases and stereotypes as they explore the multi-layered identities of celebrities and historical figures.

Common Circles is a non-profit organization dedicated to making a difference in our world by providing interactive and immersive experiences that seek to improve intergroup relations, increase empathy and respect, reduce bias and encourage action in our communities. (<http://commoncircles.org/who-we-are/>)



ADL also hosted an initial empathy game jam event in 2017. The first game jam’s theme was Being an Ally—someone who will stand up to bullying, harassment, and toxicity. The game jam took place in New York City, Austin, Texas and Oakland, California. Games that were created included Ali Tale, a game about a girl who helps her friends who are bullied with the support of a magical cat, and A Day to Remember, about a robot boy stopping bullies from doing a prank.

Our Game Jam Events

Our Theme for This Jam is **Identity**

Your mission is to make a game related to identity.

We created our own series of game jams. The ADL partnered with the Global Game Jam organization to run a game jam at 9 different sites, as well as an online game jam with Game Jolt. The game jams occurred from Saturday night to Sunday night during Fall 2018.

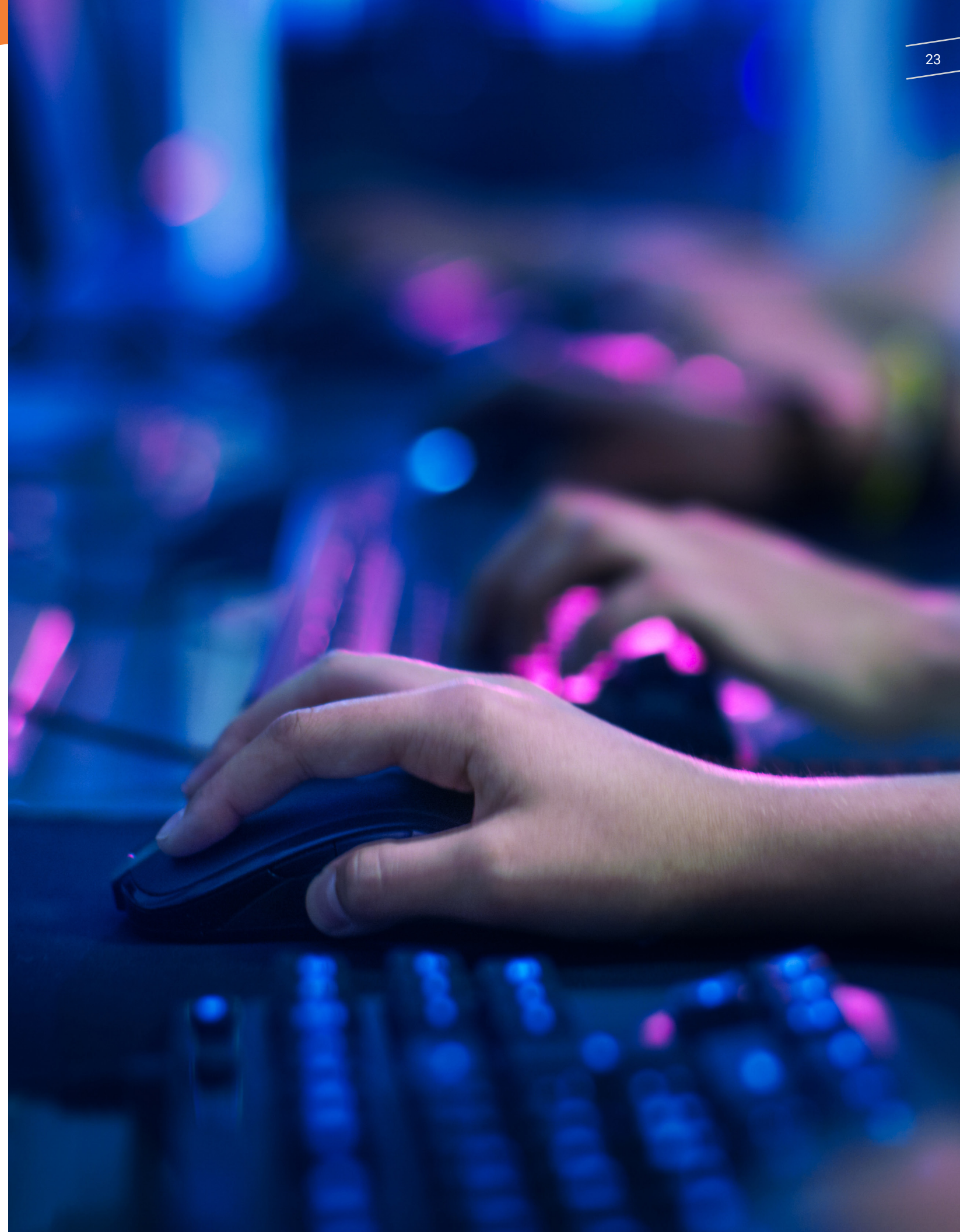
- Atlanta, Georgia
- Seattle, Washington
- New York City
- Philadelphia, Pennsylvania
- Boston, Massachusetts (Northeastern)
- Rochester, New York (RIT)
- Austin, Texas
- San Luis Obispo, California
- Poughkeepsie, New York (Marist College) – Where we hosted a pilot game jam
- Online, via GameJolt.com

The theme for the game jams was **IDENTITY**. We provided the following instructions for participants at our game jams:

Your mission is to make games related to identity, including identity expression, formation, and experimentation, which help players understand the different parts of their own identity, as well as others' identities. This could include:

- Expressing your own identity through a game
- Making a game that helps others understand parts of a personal or social group identity
- Designing a game that shows how identity affects an individual's views, biases and perceptions of others and the world.
- Helping players learn about and share experiences

Over 200 people participated in the game jams and made over 50 games in total.^{xlii}



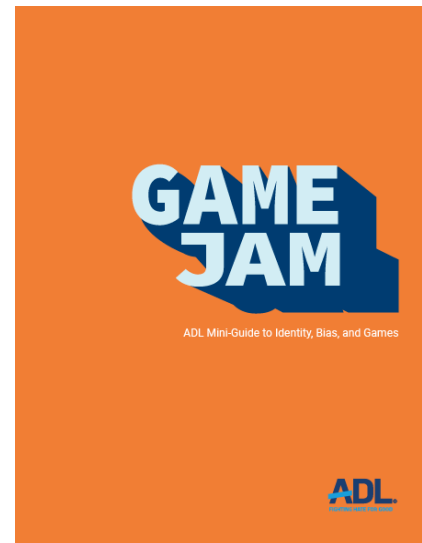
Our Game Jam Guide

We created a guide to identity, bias & games to be used at game jam events, as well as in game design processes in general.

The guide can be accessed at: <https://www.adl.org/media/12529/download^{xii}>

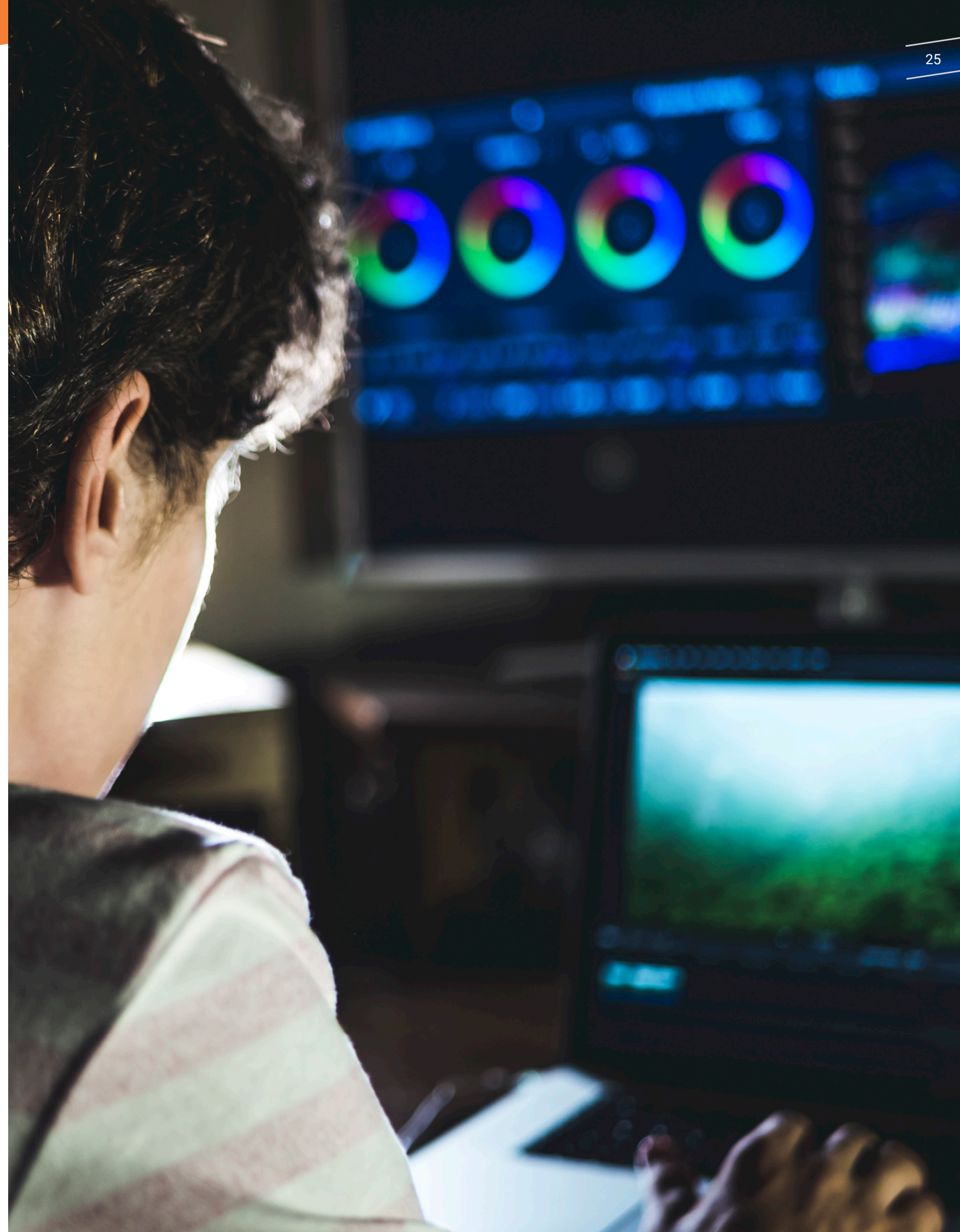
The guide includes a number of components, including:

- Design steps
- Design principles
- A framework for designing games related to identity
- Definitions and key terms
- Brainstorming exercises
- Research findings
- Dos and Don'ts



The next few pages are sample pages from our game jam guide.

“Games, like film, opera, or books, are another way to help express one’s stories, gain insight into other’s lives, and get a glimpse into what someone else has experienced. Games are another way to connect through our shared and diverse humanity.^{xxiv}”



Identity Exercises

We adapted some exercises created by ADL Education. Please feel free to use any of these activities or none of them, or adapt them. We recommend doing at least 2 different ones, as they serve as icebreakers as well as inspiration starters. Let the conversation flow, as fellow teammates may end up sharing stories and expressing their identities in different ways. Make sure that all teammates get a chance to share. Don't forget to really listen to each other and no judgment! Try to be vulnerable if you feel comfortable but be mindful of others' comfort level. Do not share what you hear outside of the group unless you receive permission.

The Story of Your Name

This is an exercise adapted from ADL's Education Training. Spend 3-4 minutes having everyone on the team "free write" a (true) story about their name. They can write about anything they want related to their name: how they got it, what it means to them, and/or whether they like their name. At the end of the 4 minutes, have everyone take turns reading their stories aloud. Have the participants identify common themes and differences among the stories. At the end, you can brainstorm ways to translate parts of the stories or themes into game concepts.

The Game Developer Bag

Every person on the team needs to take an object out of their pocket/purse/bag/thing they are carrying with them. This object should be meaningful to them. The people in the group should take turns explaining why this object is meaningful to them. Then, the team needs to put the objects in a pile and together brainstorm games that use those objects in some way—such as obstacles, mechanics, characters, or themes.

Things in Common

This is an exercise adapted from ADL's Education Training. Set a stopwatch for 3-4 minutes. Everyone on the team should spend that time trying to figure out all the different random things they have in common (besides just being game developers, living in the same city, or liking games). Try to get to at least 7-8 items. Once the list is made, try to create a game concept together that is made using 3-4 of those commonalities (this can be done together or separately).

Identity Molecule

This is an exercise adapted from ADL's Education Training. In it, participants fill in a "molecule" with their five key identity groups, and then discuss it. These groups could be anything from gender identity to political beliefs. Participants can share the identity groups out loud, and then discuss how the team might create a game concept that reflects those groups. (See the example diagram on the next page).



More Identity Exercises

Consider participating in these additional identity-related exercises before you start designing the game.

Share and reflect on your own identities

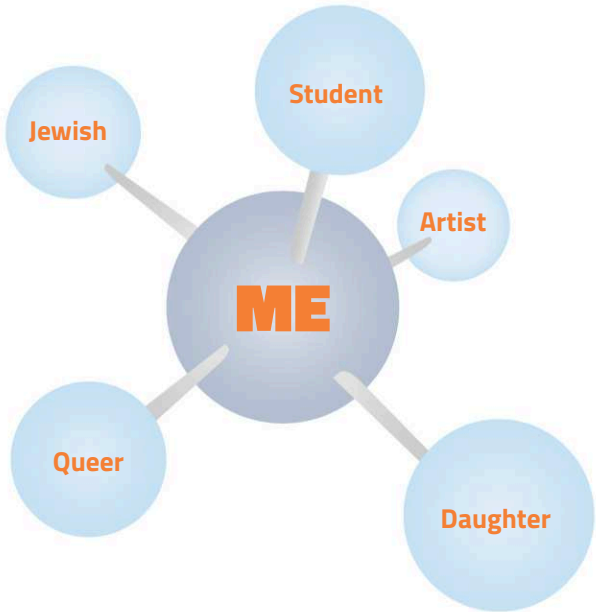
- Share games that reflect your identity.
- Share games that get your identity wrong or perpetuate stereotypes about aspects of your identity.
- Talk about your identity and listen to other's stories.

Learn about others' identities

- Consider how to represent other cultures a through games. What is appropriate to show or not show?
- Brainstorm and share cultural practices, objects, perspectives, attitudes, dialogue, communication styles, interactions, and histories.

Explore other perspectives and identities

- Switch positions and perspectives with other designer(s) and see what happens.
- Change hats, outfits, roles, locations, and/or costumes and express how your perspective changes, while being mindful of cultural appropriation and the inappropriate use of others' identities.



Identity Molecule Example

“Powerful experiences are made for specific people; which is why representation and diversity of designers is so important in games.”
– Game jam participant

Identity-Specific Design Principles

Ready to get into your game design? Want to enable your players to grapple with their own and other’s identities, perspectives and biases? Consider using these identity-specific principles!

1 Allow players to reflect on and express their own identities

Possible principles to use:

- Players can play as an avatar with a unique identity.
- Players can create and shape their own avatar or character.
- Players can customize a perspective, opinion, identity or persona.
- Players can make choices, experience consequences, and reflect on decisions.
- Players address how their avatar’s and own identity intersect, and/or how it intersects with others.

2 Enable players to interact with and experiment with other identities and perspectives

Possible principles to use:

- Players can try on different identities and personas.
- Players can interact with others’ traits, identities, and arguments, while being mindful about not perpetuating stereotypes or engaging in cultural appropriation.
- Players can observe and reflect on what happens when others make choices.
- NPCs/other characters and/or other players can share their perspectives with the player.
- Players are encouraged to listen, evaluate, and reflect on others’ perspectives.

3 Help players cultivate awareness of other cultures and individual and systemic biases

Possible principles to use:

- Players can experience different cultural identities, and/or meet other players and NPCs who reflect these identities.
- Players can interact with cultural artifacts, histories and activities.
- Players can play with different cultural systems.
- Players can experiment with different data, information, people, stories, or views.

4 Allow players to negotiate their (and others’) identities and consider other perspectives

Possible principles to use:

- Players can negotiate positions or perspectives with others.
- Players can change or adapt their identities throughout the game, and see how these changes impact their experiences.
- Players see how others change at individual and/or systematic levels, and what possible consequences are.

In addition to hosting a series of game jams, we also conducted a research study with the jam participants. We were interested in whether **the process of making games at the game jams may support greater identity exploration, perspective-taking, and bias reduction.** A total of 84 participants agreed to participate in the study^{xliii}.

The Demographics of the Participants

GENDER, SELF-IDENTIFIED	N	%
Female	23	27.4%
Male	55	65.5%
Non-binary	4	4.8%
Prefer not to say	1	1.2%
Unsure, leaning toward male	1	1.2%
TOTAL	84	

Table 1. Descriptive statistics for the gender identification of participants.

RACE, SELF-IDENTIFIED	N	%
Black/African American	10	11.9%
Asian	14	16.4%
White/Caucasian	52	61.9%
Hispanic	7	8.4%
North African/Middle Eastern	4	4.8%
Prefer not to say	2	2.4%
Other	2	2.4%

Table 2. Descriptive statistics for the race identification of participants. Note, some of the participants may have identified themselves as being two or more races. For further demographic information, please see the Appendix.

Participants were randomly placed into three different conditions.^{xliv}

1. A team of participants worked together as they would in a typical game jam (control condition)
2. The participants worked together and used the game jam guide found at: <https://www.adl.org/media/12529/download> (guide condition)
3. The participants worked together, used the game jam guide, and also worked with an ADL anti-bias educator/facilitator as part of their team. The team worked together as a cohesive unit (educator condition).^{xlv}

Findings and Analysis

The event was fun, enjoyable, and inclusive.

TOTAL PARTICIPANTS - SELF-REPORTED ATTITUDES	Pre-Jam Means	Post-Jam Means	Significance
I am having fun and enjoyment.	3.79	4.18	.001

Table 3. Comparison of means for the participants’ response before and after the game jam event.

All of the participants in the October and November game jam worked in teams when creating their games. They took on many different roles, including audio, design, art, writing, and programming. Most of the participants were relatively new to game jam events, and the average number of previous jams was 2. Almost half of the participants had never done a game jam before. Here are some of the findings:

- **The event drew many people who were already interested in the mission of ADL and creating games for empathy-related topics.** One participant said, “Definitely a worthy cause that got me thinking and inspired about making my own games.”
- **Most of the participants were excited about the theme of identity, with 88.1% of the participants comfortable or very comfortable with the theme.** For instance, participants said that, “The focus on hatred, empathy, and identity allowed for the creation of games with substance.”
- **However, not all participants were excited about the theme, or believed that games were a meaningful way to grapple with issues related to bias, identity and compassion.** 12% of the participants would have liked another theme. A few participants were initially hesitant to themes related to inclusion, bias and identity, or even in opposition to designing games for these purposes. For instance, one participant said, “I don’t really care about “fighting for” identity or bias, but if they make for compelling pieces to a game I’ll take advantage of them as best as possible.” Finding ways to reach and even inspire these participants is an important challenge for the future.

- **One possible drawback was the limited amount of time to work on games.** The event was more condensed than other game jams, as it only took place from Saturday night, through Sunday evening, with a total of around 13 hours of work time. On the other hand, participants mentioned that the, “Short time frame forced us to pay particular attention to scope.”
- **Participants enjoyed working with others, as this “encouraged a lot of creativity.”** They felt that the organizers were also “nice and supportive.” One participant noted that, “I feel more understood and supported. It was a healing experience and we made a healing game.”

“Games are a conversation between the player and the designer.”
– Game jam participant

Findings and Analysis

The event supported identity exploration and growth.

TOTAL PARTICIPANTS - SELF-REPORTED ATTITUDES	Pre-Jam Means	Post-Jam Means	Significance
Game developer identity measure	3.50	4.04	.001

Table 4. Comparison of means for the participants’ game developer identity measure, adapted from the Gamer Identity measure (Kowert & Oldmeadow, 2015).

All participants received the game jam theme, “Identity.”

The participants’ identity as a game creator began to change after this event. This was meaningful as many of the participants (almost half) had never attended a game jam before, and some were new to making games. It suggests that participants can be novice game developers and participate in this type of event, meaningfully. It also suggests that participants can get something out of a game jam without being expert developers.

After the game jam, participants identified more with being a game developer than they did before the game jam. However, they did not identify more with being a gamer. In general, some participants felt that they began exploring their own and/or others’ identities, but the tight time frame may have limited the amount they were able to explore them.

Participants explained that they expanded their understanding of identity. For instance:

- **People in teams connected through the sharing of identities and through making a game about identity.** One participant explained that, “Our game encouraged being vulnerable with your friends, so we [game jam team members] all learned a bit more about each other.” Another participant noted that, “My teammates were not neurotypical and that opened up a conversation on something I was not familiar or experienced with.”
- **Participants also started to grow in terms of defining identity and understanding what it is.** One

participant said, “I considered other facets of my identity beyond the standard race/ethnicity, sexual orientation, income class types of demographic factors.” They also started to reconsider their own views and assumptions. “I’ve always thought of ‘Identity’ as ‘what you do,’ and disliked people who say it’s ‘what you *are.*’ I now no longer dislike them, as I understand why they believe their race/background/disabilities/sexualities are a core component of their identity....this game jam opened my eyes to that.”

- **Participants also started to realize that there are other ways of viewing the world, and that those are also valid.** One participant said, “I got to explore the perspectives of those who I wouldn’t necessarily agree with throughout the process of creating this game.”
- **People at the game jam also thought about the intersection of design with identity, and started to reflect on how to represent identities through games.** One participant explained, “This jam made me think about how to try to present people’s identities in less heavy handed ... ways.” Another said, “I was reminded that I need to be careful about portraying others’ identities of which I don’t have experience.”
- **Participants started to better understand concepts such as privilege and systemic bias.** One participant noted, “I may have more privilege than others because of who I am and acknowledge that I am based on my race, social status, and culture.”

Participants started to adjust their attitudes toward games.

TOTAL PARTICIPANTS - SELF-REPORTED ATTITUDES	Pre-Jam Means	Post-Jam Means	Significance
I believe we can make games that teach empathy.	4.42	4.56	.033
Willing to make games about identity.	4.32	4.51	.026
I believe games can encourage hate.	3.86	2.50	.000

Table 5. Comparison of means for the participants’ self-reported responses to a number of statements, both before and after the game jam event.

- The game jam seemed to open up the participants’ minds as to what we can do with games. Here are a few compelling findings:
- About one-third of participants at the event made a game that more explicitly related to empathy, bias or perspective-taking.
 - Overall, on average, participants wanted to make games about empathy, bias, and identity before and following the event.ⁱ
 - After the event, participants overall were more likely to believe games could enhance empathy, and less likely to feel that they encourage hate (see Table 5).
 - Participants overall were more willing to make games about identity after the event (see Table 5).
 - Participants who were in the educator group were also significantly more willing to make games about bias after the event.ⁱⁱ
 - Among all the participants in the study, perspective-taking and empathic concern did not increase significantly from before to after the event. And, the measure of biased attitudes overall did not change.ⁱⁱⁱ

These findings suggest that perhaps the event was not long or robust enough to change attitudes and skills, but that it may have helped to open participants minds to how they might think about and use games in relation to bias and identity, particularly if they had an ADL educator. However, even if self-reported attitudes

had changed, what also matters is behavior. We also did not specifically measure prosocial behavior. Measures that look at longer-term attitudinal change and behavioral change would be useful for studies moving forward.

Anecdotally, participants explained that they were grappling with important issues related to bias and representation, and the complexities of designing games about this. We found that:

- **It is challenging to make games about bias!** One participant explained that, “Trying to bring awareness of racial or gender bias seemed to have easy pitfalls of accidentally making a game that is racist or sexist. We had to check our intentions several times to avoid these.”
- **Having a subject matter expert on the team was helpful.** 27% of the participants had an ADL anti-bias educator on their team, and this seemed useful. A participant explained that, “It was helpful to have more knowledge on the team of what to think about when creating a game.” Another mentioned that, “[The ADL facilitator] was incredibly intelligent, and [their] insight was really helpful with forming the emotional beats of the game.” One participant, who did not have the guide on their team, explained that, “I think having someone helping guide us toward ADL’s mission would have helped keep us on track and create a more impactful game.”

Conclusion & Recommendations

We organized and ran game jam events at nine cities in the United States. At these events, we invited groups of participants to make games about identity. We investigated whether the process of making games enhanced perspective-taking and identity, rather than whether the games made at the event were effective. Participants were randomized into three conditions.

Overall, participants enjoyed the game jam and most participants liked (1) the theme (identity), (2) participating with others, and (3) how the event was organized. In general, participants had more positive attitudes toward games after the event. They more likely believed that games have the potential to increase empathy, and less likely to believe that games encourage hate. They were overall more willing to make games about identity after the event.

While only 38% of participants made a game that was explicitly about bias or perspective-taking, participants explained that they explored their own and/or other's identities during the game jam. This suggests that encouraging participants to make games that explicitly relate to identity may help them begin to explore their own and other's identities, as a result of creating the game and the design process. However, overall, perspective-taking and other empathy measures did not increase significantly, including empathic concern.

Overall, a game jam that integrates anti-bias training and game design, with an anti-bias expert as a mentor and team member, and more time to conduct exercises, discuss issues, and design the game might be beneficial.

A limitation of the study is that we did not test behavior change and only investigated self-reported attitudes, skills, and desires to engage in behaviors. Other limitations include the number of participants in the study, which affects the overall mean effect, particularly as we divided the participants into three conditions. The use of a study during the game jam was also itself a limitation. Although participants could decide whether to participate in the study, some felt that it was unwieldy and took away from game design time. The study also sometimes came in conflict with the ethos of a game jam.

Future studies should continue to look at behavior change, and a change in attitudes over a longer period of time than a 13-hour game jam. They should also delve into the mechanisms for why making games about identity, bias and perspective-taking may or may not help support greater identity exploration, perspective-taking, and empathy, and whether this holds in other contexts and environments, such as a game studio or classroom.

Further questions emerged. Can we incorporate games into anti-bias education? Moreover, can we use the process of game design to better support identity exploration, perspective-taking and bias reduction?



Best Practices

Based on this event and study, we recommend the following best practices for organizers of game jams, game developers and designers, educators, and game studios:

For Organizers of Game Jams

Are you thinking about hosting a game jam that relates to a social or emotional learning topic, such as empathy, compassion, inclusion, bias, or identity?

- If there is a guide or instructional materials, provide it to participants before the game jam event.
- Ensure that participants understand that the process is just as important as the product.
- Encourage participants to take the time needed to think, discuss, reflect, and share before diving into the game creation.
- Starting off with brainstorming exercises that relate to identity or other intrapersonal or interpersonal topics may be useful.
- Including a subject-matter expert as part of the game design process may be useful.
- Use a theme that relates specifically to the skills or mindsets you want to develop. Be clear if you want participants to design for specific uses or needs.
- If you want to have a general theme, like identity, but want to ensure the games meet specific needs, include diversifiers, or more specific constraints, and then ask the participants to choose at least one of them.
- Encourage participants to make both analog and digital games.
- If you have a short time frame for the game jam, encourage participants to reduce the scope for their games and to think about time management.
- Encourage participants to develop games based on both their interests and expertise.
- Remember that practical and emotional considerations, such as food, beverages, hours, mentors, and feeling safe at the event are just as important as any other part of the event.

For Game Developers and Designers

Are you thinking about designing games for empathy, compassion, or bias reduction? Do you want to incorporate inclusive design methods into your practices?

- Consider how to represent different identities, while being mindful of cultural appropriation. Move away from one-dimensional narratives or stereotypes.
- To encourage perspective-taking, enable players to interact with other players, and/or different characters, views, and choices to see how their views overlap or diverge. How can players become more familiar with those who are different from them?
- Use authentic voices, stories, characters, contexts, and themes.
- Consider how games that are collaborative or cooperative vs. competitive may support different types of connection or conversations.
- Think about how the choice of an avatar, and how it is customized, may affect how the player connects to the game, how they think about themselves, as well as how they may view others outside of the game.
- Make sure the choices in the game are meaningful to the player, both in terms of the player's own personal background, as well as how the choices impact the game.
- Think about how to make the game less "didactic" and more focused on doing, such as by practicing authentic skills or interacting with authentic perspectives.
- Reflect on the ethics of your creation and how it will be played and received.
- Consider how to ensure players feel safe and secure in your game, and how communication and communities around and within the game are managed and governed.
- Look at this guide and the game jam guide (<https://www.adl.org/media/12529/download>) for useful research findings and further suggestions on game design principles, such as reflection and transparency.

Best Practices

For Educators

Are you thinking about using games to teach empathy or perspective-taking, or to reduce bias? Are you considering using game design to support these skills?

- Anti-bias educators may want to integrate games into their programs, as well as game design activities, as the process of design may be beneficial.
- Consider how to pair or group students or participants such that they feel safe, but also enriched.
- Games are complex environments that are affected by and affect the context and community around it. Some well-designed games will be effective, but it depends on the audience, situation, location, prior knowledge, and “chemistry” of the group.
- To use games in the classroom (or other educational context), teachers also need to consider logistical and technological constraints, such as whether you have the right size table, correct computers, or enough time to support the game’s play.
- Thinking of using a particular game? The best thing to do is to play the game a few times and learn all of its ins and outs.
- Curating, or finding the right game, is difficult. Consider using the book, *Learning, Education & Games: 100 Games to Use in the Classroom* (out in Summer 2019) to find the right game. You can also use the EPIC framework, found at: https://www.researchgate.net/publication/283788911_EPIC_a_framework_for_using_video_games_in_ethics_education.
- Consider using both analog (card, board, role-playing games), and digital games, depending on the needs of the group. Games can also be pen and paper and even need no materials!
- You don’t need to be a programmer to make games! You can encourage students to make games out of cardboard and construction paper, index cards, or tokens. You can use programs such as Twine (<https://twinery.org/2/#!/welcome>) or Metaverse AR (<https://studio.gometa.io/discover/me>) to make quick interactive stories or augmented reality games.
- Ask lots of questions, invite students to reflect on their assumptions, and encourage them to consider the ethical implications of their decisions.

For Game Studios

Are you thinking about innovative ways to encourage inclusion and belongingness in your studio? Do you want to attract new, diverse talent? Are you interested in supporting the creation of games that are meaningful and inspiring?

- Consider hosting a game jam at the studio, such as during work hours. It could inspire your team, enhance creativity, and contribute to a sense of belongingness.
- A game jam about an empathy-related topic could even serve as a type of anti-bias training that does not feel like traditional training, which may even generate interest, enthusiasm, and novel game ideas.
- Game jams can provide space for exploration, creativity, inspiration, and different voices than are typically heard.
- Using game design to support perspective-taking and identity could help to reach those employees who are marginalized, because they may feel more listened to, but perhaps also those who are hesitant to attend traditional anti-bias trainings.
- A game jam at a studio can encourage team-building and collaboration, as well as build trust, intimacy, and loyalty, if done appropriately. It could be a good way of rapidly building relationships with new staff as well.
- Game studios should think about other ways, besides game jams, to support diversity and inclusion policies and practices. Hosting other types of innovative events, programs, and collaborations may also help to support these measures.
- Game studios should connect with jam organizers and educators to consider how to adjust a game jam to a corporate context.

Key Terms (from ADL's Glossary)

Identity: The qualities, beliefs, interests, etc. that make a particular person or group similar or different from others.

Bias: An inclination or preference either for or against an individual or group that interferes with impartial judgment.

Culture: The patterns of daily life learned consciously and unconsciously by a group of people. These patterns can be seen in language, governing practices, arts, customs, holiday celebrations, food, religion, dating rituals and clothing, to name a few.

Cultural appropriation: When people use specific elements of a culture (e.g. ideas, symbols, images, clothing) without regard for that culture. It usually happens when one group exploits the culture of another group, often with little understanding of the group's history, experience and traditions.

Ethnicity: Refers to a person's identification with a group based on characteristics such as shared history, ancestry, nationality, geographic origin, language and culture; and though related, it is not synonymous with race. For example, Korean, Japanese, Chinese, Vietnamese, Laotian, Cambodian.

Gender: The socially-defined "rules" and roles for men and women in a society. The attitudes, customs and values associated with gender are socially constructed; however, individuals develop their gender identities in two primary ways: through an innate sense of their own identity and through their life experiences and interactions with others. Dominant western society generally defines gender as a binary system—men and women—but many cultures define gender as more fluid and existing along a continuum.

Gender Expression: Refers to the ways in which people externally communicate their gender identity to others through behavior, clothing, haircut, voice and emphasizing, de-emphasizing or changing their bodies' characteristics. Gender expression is not an indicator of sexual orientation.

Gender Identity: How an individual identifies in terms of their gender. Since gender identity is internal, one's gender identity is not necessarily visible to others.

Race: A socially constructed concept and has no biological basis. Nonetheless, people use physical traits to categorize people into different racial groups. While some people self-identify with a racial group consistent with how society would identify them, others find that their racial identity does not match with society's perception.

Sexual Orientation: Describes a person's attraction to the same or opposite sex. While some argue that one's sexual orientation is visible, such observations are based on stereotypical gender norms, not to whom the person is attracted.

Sexual Identity: Sexual identity labels include "lesbian," "gay," "bisexual," "bi," "queer," "questioning," "heterosexual," "straight," and others. Sexual identity evolves through a developmental process that varies depending on the individual. Sexual behavior and identity can be chosen. Though some people claim their sexual orientation is also a choice, for others this does not seem to be the case.

Stereotype: An oversimplified generalization about a person or group of people without regard for individual differences. Even seemingly positive stereotypes that link a person or group to a specific positive trait can have negative consequences.

What are Games?!

Games are experiences designed by people. They come in any genre, shape, size, and content matter. They can be first-person shooters, educational games, 1-minute long, or all of the above.

Games are not standalone products, and are instead complex systems that interact with other systems, such as cultural, political, social and technological systems. Context, content, and how the game is used all matter in terms of its effectiveness.

Game mechanics are the actions that a player does in a game, like rolling a die, jumping, moving, arguing, or negotiating.

Game play is the overall experience and activity that takes place in the game.

Game goals are the objectives or endpoints you want the player to do or get to. These could be big (beat the final boss) or small (jump over an obstacle)

Game obstacles are the barriers, "enemies," and/or boundaries that a game player must face, such as a wall or a rolling barrel.

Game elements to consider that may make them particularly useful for learning include:

- Motivation
- Fun/engagement
- Social interactions
- Problem solving
- Story
- Games as systems and tools

Game Design as a Process

Game design is the process of creating the game, including the game play, mechanics, goals, obstacles, and overall experience for a specific audience. Any game is a type of “solution” to a complex problem. There may be 1000s of decisions that get made during this process, anywhere from conceptual to technological to logistical.

Playtesting is an integral part of the design process, which involves observing and listening to real players play the game (even a raw paper version or prototype). This helps to find out if the play experience is what you expected it to be. Devs need to be open to revising and adjusting the game — sometimes completely changing it — during and after playtesting. Playtesting should happen many times throughout the process.

Design principles: Guidelines that help lead game designers through the design process.

Games require many different perspectives and types of expertise – from design to art to programming to content experts.

Game design is a series of tradeoffs and mini-solutions to an enormous number of questions and problems that need to be weighed, such as designing flexible gameplay versus maintaining strict accuracy, or enabling deep immersion in a game, versus ensuring the ability to transfer learning to outside contexts.

-- Guiding Questions for Game-Based Learning (Schrier, 2018)

Game Development Roles

Game developers (devs) make games, but they may have very distinct skill sets. Some roles are:

Programmer: These are the folks who do the programming, coding, software, and the technical development of games. They typically know things like Javascript, C++, HTML 5, Java, database languages, Unity/Unreal script/scripting languages or other languages.

Designer: These are the folks who consider how people interact, share, express, learn, educate, entertain, and communicate through games and media. They consider what will happen in the game (e.g., gameplay, rules, goals, mechanics, story, level design) and how people interact with the game and with each other. They also focus a lot on playtesting (playing the game with real people and observing what happens).

Writer: These people focus on the writing of the story, levels, dialogue, design documentation, and narrative elements in a game. They often also create new worlds (including mythology, characters, backstory, settings, maps, timelines, and guidebooks).

Artist: These people create the art assets (the characters and backgrounds) and animated experiences for players (how the characters and objects move). They focus on how the games look, including the characters, environments, backgrounds, objects and graphics in both 2-D and 3-D formats.

Musician: These people create audio assets and design sound for game experiences. They focus on the music, sound effects, and audio ambiance of a game.

Games to Play and Critique

GAME	DESIGNER/DEVELOPER	SYNOPSIS	LINK TO GAME
Assassins Creed series	Ubisoft	A series of mainstream, digital action-adventure games where players play as an “Assassin” in a past historic moment.	https://assassinscreed.ubisoft.com/game/en-us/home
Buffalo: The Name Dropping Game	Tiltfactor/Mary Flanagan	A card game designed by Mary Flanagan and the Tiltfactor Lab, players make rapid connections among cards such that their biases begin to emerge.	https://tiltfactor.org/game/buffalo/
Fable series	Lionhead Studios/XBox	A series of digital role-playing games. In Fable III, Players play as a King or Queen of Albion, exploring their ethical identity as they make choices for Albion and see how the consequences play out in the virtual game world.	https://marketplace.xbox.com/en-us/Product/Fable-III/66acd000-77fe-1000-9115-d8024d5308d6
Fallout series	Bethesda Game Studios	A series of digital games that take place in a post-apocalyptic location in fictional versions of United States cities. The most recent version of the games is an online multiplayer role-playing games.	https://fallout.bethesda.net/
Grand Theft Auto series	Rockstar Games	A series of digital action-adventure games, which take place in fictional versions of United States cities, and feature quests related to carjacking, shooting, stealth, and driving	https://www.rockstargames.com/V/
Keep Talking and Nobody Explodes	Steel Crate Games	This is a virtual reality game where players need to communicate to defuse a bomb. One player can access the bomb through a VR headset, while another group of players has the manual and needs to walk the player through how to defuse it.	https://keeptalkinggame.com/
Liyla and the Shadows of War	Rasheed Abueideh	A mobile game that shows what it is like for a family living in the Gaza strip and dealing with war and violence.	http://liyla.org/
Mass Effect series	BioWare	A digital science fiction role-playing game where game players make a number of ethical decisions.	http://masseffect.bioware.com/agegate/?url=%2F
Mission US	PBS; Electric Funstuff; CUNY	Players play as a fictional character in a historical setting, such as the Revolutionary War or Underground Railroad, while learning about the character’s identity, and exploring the past.	https://www.mission-us.org/
Overwatch	Blizzard	An online, digital team-based multiplayer game where players select characters to play as from a list of dozens of characters.	https://playoverwatch.com/en-us/
Pandemic	Z-Man Games	A board game where players need to collaborate to contain the outbreak of a disease. Players need to listen to each other’s strategies and work together to figure out the best course of action.	https://www.zmangames.com/en/games/pandemic/
Parable of the Polygons	Vi Hart & Nicky Case	Players move a neighborhood of polygons around to explore how biases affect the whole neighborhood, which helps to understand systemic bias based on one’s identity.	https://ncase.me/polygons/

Games to Play and Critique, continued

GAME	DESIGNER/DEVELOPER	SYNOPSIS	LINK TO GAME
Portal series	Valve	Digital first-person, puzzle platform video games where players need to create “portals” or pits in different ways to help solve different puzzles.	http://www.thinkwithportals.com/
Quandary	Scot Osterweil/Learning Games Network	Players make decisions for human colonists on the new planet Braxos.	https://www.quandarygame.org/
Red Dead series	Rockstar Games	Digital Western-themed games that take place in a fictionalized early 1900s American frontier, where players play as outlaws.	https://www.rockstargames.com/reddeadredemption2/
1979 Revolution: Black Friday	iNK Studios	Players play as a young man during the events leading up to the Iranian Revolution of 1979, while making choices for him and deciding which perspectives they identify with.	http://1979revolutiongame.com/
Rosenstrasse	Moyra Turkington/Jessica Hammer/ Unruly Designs	An analog role-playing game that lets players make ethical decisions and relive a moment in history (which involved non-Jewish women protesting the imprisonment of their Jewish partners in Berlin under the Reich).	http://www.unrulydesigns.com/rosenstrasse/
The Sims series	EA Games/Maxis	Players can design and control an avatar, including clothes, looks, and body type, while deciding how their avatar will spend their day.	https://www.ea.com/games/the-sims
Skyrim/ Morrowind (Elder Scrolls series)	Bethesda Games	Large, open world, role-playing games set in a fictional fantasy-flavored world.	https://elderscrolls.bethesda.net/
Soul Calibur IV	Bandai/Namco	Fighting games where players are able to choose their character, and have a number of options to change equipment, physical appearance, and voices.	https://www.bandainamcoent.com/games/soulcalibur-vi
That Dragon, Cancer	Numinous Games	A digital game that gives you a glimpse of what it is like dealing with a family’s grief over their young son’s cancer	http://www.thatdragoncancer.com/
Walking Dead	Telltale Games	Players explore their ethical identity as they make choices for a character trying to survive a zombie apocalypse; based on the comic book of the same name.	https://store.steampowered.com/sale/walking_dead
Way	Coco & Co.	An online digital game where players need to anonymously collaborate with another player to complete puzzles, but they cannot speak and must instead use their avatar to gesture to the other player.	https://makeourway.com/
What Remains of Edith Finch	Giant Sparrow	A digital game where players explore the home and rooms of different members of the Finch family.	http://www.giantsparrow.com/games/finch/
When Rivers were Trails	Indian Land Tenure Foundation/MSU’s Games for Entertainment and Learning Lab	A digital game that explores the impact of U.S. policies on indigenous communities, while also sharing stories of the Anishinaabe people.	https://indianlandtenure.itch.io/when-rivers-were-trails
World of Warcraft	Blizzard	A digital, online, massively multiplayer role-playing game set in a fantasy world.	https://worldofwarcraft.com/en-us/

Table 6. Games that were mentioned in this report, that may be useful to play, critique, and use.

Additional Demographic Information

CURRENT ROLE OF PARTICIPANT	N	%
Student at a university or college	53	63.1%
Hobbyist/game enthusiast	27	32.1%
Part-time game developer/designer	22	26.2%
Full-time employee (not a game developer) at any type of company	8	9.5%
Full-time game developer/designer at a media company/tech company where games are not the main part of the business	2	2.4%
Full-time game developer/designer at an education company where games are not the main business,	3	3.57%
Full-time game developer/designer at an indie studio/startup	4	4.8%
Full-time employee (not a game developer) at a not-for-profit/Employee at a university or college	3	3.57%
High school student or pre-college	1	1.2%
Teacher/educator of any kind	3	3.57%
Full-time game developer/designer at a AAA studio	1	1.2%
Other	1	1.2%

Table 7. Descriptive statistics for the employment/role of participants. Participants could choose more than one answer so the total does not equal 100%.

Additional Demographic Information

YEARS IN GAME DEVELOPMENT	N	%
Only at the university/high school level	39	46.4%
>0 to 1 years in the professional game development field (in any type of company or organization)	8	9.5%
>1 to 3 years in the professional game development field (in any type of company or organization)	13	15.5%
>3 to 6 years in the professional game development field (in any type of company or organization)	5	6.0%
>6 to 10 years in the professional game development field (in any type of company or organization)	1	1.2%
No experience of any kind in game development	6	7.1%
Only as a hobbyist	12	14.3%
Total	84	

Table 8. Descriptive statistics for the number of years engaged in game development of participants

NUMBER OF GAME JAMS PREVIOUSLY ATTENDED	N	%
None	35	41.7%
1 game jam	14	16.7%
2-5 game jams	19	22.6%
6-8 game jams	8	9.5%
>11 game jams	5	6.0%
Total	84	

Table 9. Descriptive statistics for the number of game jams that participants have previously attended.

Footnotes

ⁱ <https://www.adl.org/news/press-releases/more-than-one-third-of-americans-experience-severe-online-hate-and-harassment>

ⁱⁱ <https://www.pcgamer.com/steam-is-currently-listing-a-game-called-rape-day-in-which-you-play-as-a-serial-killer-rapist/>

ⁱⁱⁱ <https://www.theguardian.com/games/2018/nov/07/red-dead-redemption-2-game-criticised-over-killing-of-suffragette>

^{iv} <https://www.adl.org/resources/reports/hate-in-social-virtual-reality#sexism-racism-and-anti-semitism-in-social-vr-today>

^v <https://www.gamesindustry.biz/articles/2018-12-18-global-games-market-value-rose-to-usd134-9bn-in-2018->

^{vi} Takeuchi, L.M. & Vaala, S. (2014). Level up learning: A national survey on teaching with digital games. New York: The Joan Ganz Cooney Center at Sesame Workshop. http://joanganzcooneycenter.org/wp-content/uploads/2014/10/jgcc_leveluplearning_final.pdf

^{vii} <http://time.com/5554601/google-stadia-video-games/>

^{viii} http://www.theesa.com/wp-content/uploads/2018/05/EF2018_FINAL.pdf

^{ix} <https://www.adl.org/media/12529/download>

^x For more information about gaming and identity, see, Gray, K. & Leonard, D. (2018). Woke Gaming. University of Washington Press; Yee, N. & Bailenson, J. (2007). The Proteus Effect: The effect of transformed self-representation on behavior. *Human Communication Research* 33:271–290; Foster, A. & Shah, M. (2016). Knew me and new me: Facilitating student identity exploration and learning through game integration. *Special Issue on Transmedia and Games. International Journal of Gaming and Computer Mediated Simulations*, 8 (3), 39-58; Shah, M. & Foster, A. (2016). Examining Game Design Features for Identity Exploration and Change. *Journal of Computers in Mathematics and Science Teaching*, 35 (4), 369-384.Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). 2.

^{xi} <https://theoutline.com/post/3749/the-first-game-to-actually-give-a-damn-about-natural-black-hair?zd=1&zi=75o76ghj>

^{xii} <http://ithrivegames.org/educators-hub/>

^{xiii} Simonovits, G., Kézdi, G., & Kardos, P. (2018). Seeing the world through the other’s eyes. *An online intervention reducing ethnic prejudice. The American Political Science Review*, 112(1): 186-193

^{xiv} Banakou, D., Hanumanthu, P. & Slater, M. (2016). Virtual embodiment of white people in a virtual body leads to a sustained reduction in their implicit racial bias. *Frontiers in Human Neuroscience*, November 29, 2016, <https://www.frontiersin.org/articles/10.3389/fnhum.2016.00601/full>;

^{xv} Yang, G. S., Gibson, B., Lueke, A. K., Huesmann, L. R., & Bushman, B. J. (2014). Effects of Avatar Race in Violent Video Games on Racial Attitudes and Aggression. *Social Psychological and Personality Science*, 5(6), 698–704. <https://journals.sagepub.com/doi/abs/10.1177/1948550614528008>

^{xvi} Nario-Redmond, M.R., Gospodinov, D. & Cobb, A. (2017). The unintended negative consequences of disability simulations. *Rehabilitation Psychology*, 62(3): 324-333

^{xvii} <https://scholar.google.com/citations?user=OsRY-40AAAAJ&hl=en>

^{xviii} For more about identity, bias, and gaming, see: Schrier, K. (2019). Reducing Bias Through Gaming. G/A/M/E. <https://www.gamejournal.it/reducing-bias-through-gaming/>

^{xix} <https://www.adl.org/blog/how-we-can-use-games-to-understand-others-better>

^{xx} Farber, M. & Schrier (2017). Strengths and limitations of games as “empathy machines,” UNESCO Whitepaper, https://unesdoc.unesco.org/ark:/48223/pf0000261993_eng; http://ithrivegames.org/wp-content/uploads/2019/03/Empathy_DesignKit_3.12.18.pdf

^{xxi} Wang, C.S., Tai, K., Ku, G., & Galinsky, A.D. (2014). Perspective-taking increases willingness to engage in intergroup contact. *PLoS One*, 9(1); Farber, M. & Schrier (2017). Strengths and limitations of games as “empathy machines,” UNESCO Whitepaper, https://unesdoc.unesco.org/ark:/48223/pf0000261993_eng; Wang, C.S., Lee, M., Ku, G., & Leung, A.K. (2018). The cultural boundaries of perspective-taking: When and why perspective-taking reduces stereotyping. *Personality and Social Psychology Bulletin*, 44(6): 928-943. DOI:10.1177/0146167218757453

^{xxii} <https://www.sciencedirect.com/science/article/pii/B9780128017388000129>

^{xxiii} Jimenez, O. Keep Talking and Nobody Explodes. In K. Schrier (Ed.) *Learning, education & games: 100 Games to Use in the Classroom & Beyond* (Vol. 3). Pittsburgh: Carnegie Mellon, ETC Press, 2019

^{xxiv} Schrier, K. & Farber, M. (2019). Open questions for empathy and games. *Proceedings of Connected Learning Conference ’18*, ETC Press, Boston, MA; Darvasi, P. (2016). Empathy, perspective and complicity: how digital games can support peace education and conflict resolution, <https://unesdoc.unesco.org/ark:/48223/pf0000259928>

^{xxv} Lisa Nakamura, *Cybertypes: Race, Identity, and Ethnicity on the Internet* (New York: Routledge, 2002), 13–14; E. Roxworthy, *Revitalizing Japanese American Internment: Critical Empathy and Role-Play in the Musical Allegiance and the Video Game Drama in the Delta*; Saidiya Hartman, *Scenes of Subjection: Terror, Slavery, and Self-Making in Nineteenth-Century America* (New York: Oxford University Press, 1997).

^{xxvi} <https://www.adl.org/education/resources/tools-and-strategies/why-simulation-activities-should-not-be-used>

^{xxvii} How Selective Empathy Can Chip Away at Civil Society, *Mind/Shift*, <https://www.kqed.org/mindshift/53476/how-selective-empathy-can-chip-away-at-civil-society>; Sassenrath, C., Hodges, S. D., & Pfattheicher, S. (2016). It’s all about the self: When perspective taking backfires. *Current Directions in Psychological Science*, 25(6): 405-410; Nario-Redmond, et al., 2017

^{xxviii} Eyal, T., Steffel, M., & Epley, N. (2018). Perspective mistaking: Accurately understanding the mind of another requires getting perspective, not taking perspective. *Journal of Personality and Social Psychology*, 114(4), 547-571.

^{xxix} Aviles, J. (2017). Paths to Prejudice Reduction Utilizing Virtual Avatars and Agents, Dissertation, Penn State, https://etda.libraries.psu.edu/files/final_submissions/15444, p. 3.

^{xxx} For more information about these areas, see: Farber, M. & Schrier (2017). Strengths and limitations of games as “empathy machines,” UNESCO Whitepaper, https://unesdoc.unesco.org/ark:/48223/pf0000261993_eng; http://ithrivegames.org/wp-content/uploads/2019/03/Empathy_DesignKit_3.12.18.pdf; Schrier, K. & Farber, M. (2019). Open questions for empathy and games. *Proceedings of Connected Learning Conference ’18*, ETC Press, Boston, MA; Schrier, K. (2015). EPIC: A framework for using video games for ethics education. *Journal of Moral Education*. 44(4): 393-424; Schrier, K. (2018). Using games to solve real-world civic problems: Early insights and design principles. *The Journal of Community Engagement and Higher Education*. Vol. 10, No. 1

^{xxxi} For more information about the research behind this section, please see, as a start: Campbell, T. (2015). Stereotyped at seven? Biases in teacher judgement of pupils’ ability and attainment. *Journal of Social Policy*, 44:3, pp 517-547. <http://dx.doi.org/10.1017/S0047279415000227>; Bai, H., & Ertmer, P. A. (2008). Teacher educators’ beliefs and technology uses as predictors of preservice teachers’ beliefs and technology attitudes. *Journal of Technology and Teacher Education*, 16(1), 93-112; Darvasi, P. (2016). Empathy, perspective and complicity: how digital games can support peace education and conflict resolution, <https://unesdoc.unesco.org/ark:/48223/pf0000259928>; Howard, A. & Borenstein, J. (2017). The Ugly Truth About Ourselves and Our Robot Creations: The Problem of Bias and Social Inequity. *Sci Eng Ethics*. 2018 Oct;24(5):1521-1536. doi: 10.1007/s11948-017-9975-2. Epub 2017 Sep 21. <https://www.ncbi.nlm.nih.gov/pubmed/28936795>; Noble, S. U. (2018). *Algorithms of Oppression*. NYU Press.

^{xxxii} This box was written by ADL Education.

^{xxxiii} Adapted from Schrier, K. (2019), Reducing Bias Through Gaming. G/A/M/E. <https://www.gamejournal.it/reducing-bias-through-gaming/>

^{xxxiv} The following citations support these bullet points: Simonovits, G., Kézdi, G., & Kardos, P. (2018). Seeing the world through the other’s eyes. *An online intervention reducing ethnic prejudice. The American Political Science Review*, 112(1): 186-193; Nario-Redmond, M.R., Gospodinov, D. & Cobb, A. (2017). The unintended negative consequences of disability simulations. *Rehabilitation Psychology*, 62(3): 324-333; Adachi, P.J.C., Hodson, G., Willoughby, T., Blank, C., & Ha, A. (2016). From outgroups to allied forces: Effect of intergroup cooperation in violent and nonviolent video games on boosting favorable outgroup attitudes. *Journal of Experimental Psychology: General*, 145(3): 259-265; Castillo, J.-L. Á., Cámara, C. P., & Eguizábal, A. J. (2011). Prejudice reduction in university programs for older adults. *Educational Gerontology*, 37(2), 164-190; Wang, C.S., Tai, K., Ku, G., & Galinsky, A.D. (2014). Perspective-taking increases willingness to engage in intergroup contact. *PLoS One*, 9(1). Wang, C.S., Lee, M., Ku, G., & Leung, A.K. (2018). The cultural boundaries of perspective-taking: When and why perspective-taking reduces stereotyping. *Personality and Social Psychology Bulletin*, 44(6): 928-943. DOI:10.1177/0146167218757453; Galinsky, A. D., Magee, J. C., Gruenfeld, D. H, Whitson, J. A., & Liljenquist, K. A. (2008). Power reduces the press of the situation: Implications for creativity, conformity, and dissonance. *Journal of Personality and Social Psychology*, 95(6), 1450-1466; Dovidio, J. F., Pagotto, L., & Hebl, M. R. (2011). Implicit attitudes and discrimination against people with physical disabilities. In R. L. Wiener & S. L. Willborn (Eds.), *Disability and aging discrimination: Perspectives in law and psychology* (pp. 157-183). New York, NY, US: Springer Science + Business Media. http://dx.doi.org/10.1007/978-1-4419-6293-5_9; Crowley, K. & Jacobs, M. (2002). Building islands of expertise in everyday family activity. In G. Leinhardt, K. Crowley, & K. Knutson (Eds.), *Learning conversations in museums* (pp. 333-356). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers; Banakou, D., Hanumanthu, P.D., & Slater, M. (2016). Virtual embodiment of white people in a black virtual body leads to a sustained reduction in their implicit racial bias. *Frontiers in Human Neuroscience*, 10: 601; Steinkuehler, C., & Oh, Y. (2012). Apprenticeship in massively multiplayer online games. In C. Steinkuehler, K. Squire, & S. Barab (Eds.), *Games, learning, and society: Learning and meaning in the digital age*. New York: Cambridge University Press; Yang, G.G., Gibson, B., Lueke, A.K., Huesmann, L.R., & Bushman, B.J. Effects of avatar race in violent video games on racial attitudes and aggression. *Social psychological and personality science*, 5(6): 698-704; Schrier, K. (2016). Knowledge games: How playing games can solve problems, create insight, and make change. Baltimore: Johns Hopkins University Press; Elizabeth Behm-Morawitz, Hillary Pennell & Ashton Gerding Speno (2016) The effects of virtual racial embodiment in a gaming app on reducing prejudice, *Communication Monographs*, 83:3, 396-418,DOI:

10.1080/03637751.2015.1128556; Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751-783. <http://dx.doi.org/10.1037/0022-3514.90.5.751>

^{xxxv} The following citations support these bullet points: Nario-Redmond, M.R., Gospodinov, D. & Cobb, A. (2017). The unintended negative consequences of disability simulations. *Rehabilitation Psychology*, 62(3): 324-333; Wang, C.S., Lee, M., Ku, G., & Leung, A.K. (2018). The cultural boundaries of perspective-taking: When and why perspective-taking reduces stereotyping. *Personality and Social Psychology Bulletin*, 44(6): 928-943. DOI:10.1177/0146167218757453; Adachi, P.J.C., Hodson, G., Willoughby, T., Blank, C., & Ha, A. (2016). From outgroups to allied forces: Effect of intergroup cooperation in violent and nonviolent video games on boosting favorable outgroup attitudes. *Journal of Experimental Psychology: General*, 145(3): 259-265; Castillo, J.-L. Á., Cámara, C. P., & Eguizábal, A. J. (2011). Prejudice reduction in university programs for older adults. *Educational Gerontology*, 37(2), 164-190; Sassenrath, C., Hodges, S. D., & Pfattheicher, S. (2016). It’s all about the self: When perspective taking backfires. *Current Directions in Psychological Science*, 25(6): 405-410; Quillian, L. (2006). Measuring Racial Discrimination. *Contemporary Sociology*, 35(1): 88-90. Quillian, L. (2008). Does Unconscious Racism Exist? *Social Psychology Quarterly*, 71(1): pp. 6-11; Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56(1), 5-18. <http://dx.doi.org/10.1037/0022-3514.56.1.5>; Greitemeyer, T., & Mügge, D. O. (2014). Video games do affect social outcomes: A metaanalytic review of the effects of violent and prosocial video game play. *Personality and Social Psychology Bulletin*, 40, 578–589. <http://dx.doi.org/10.1177/0146167213520459>; Farber, M. & Schrier, K. (2017). The strengths and limits of using digital games as 'empathy machines'. UNESCO working paper. <http://unesdoc.unesco.org/images/0026/002619/261993E.pdf>; Flanagan, M., Nissenbaum, H., Belman, J. & Diamond, J. (2007). A Method for Discovering Values in Digital Games. DIGRA 2007 Conference Proceedings. Tokyo, Japan; Flanagan, M. & Nissenbaum, H. (2016). *Values at Play in Digital Games*. MIT Press; Schrier, K. (2019), *Reducing Bias Through Gaming*. G/A/M/E. <https://www.gamejournal.it/reducing-bias-through-gaming/>; Deng, Xuefei (Nancy); Joshi, K.D.; and Galliers, Robert D.. 2016. “The Duality of Empowerment and Marginalization in Microtask Crowdsourcing: Giving Voice to the Less Powerful Through Value Sensitive Design,” *MIS Quarterly*, (40: 2) pp.279-302; Rusch, D. (2019). Personal interview with Doris Rusch.

^{xxxvi} ADL’s Glossary of Terms for Anti-Bias Education, 2019

^{xxxvii} Campbell, T. (2015). Stereotyped at seven? Biases in teacher judgement of pupils’ ability and attainment. *Journal of Social Policy*, 44:3, pp 517-547

^{xxxviii} Adachi, P.J.C., Hodson, G., Willoughby, T., Blank, C., & Ha, A. (2016). From outgroups to allied forces: Effect of intergroup cooperation in violent and nonviolent video games on boosting favorable outgroup attitudes. *Journal of Experimental Psychology: General*, 145(3): 259-265

^{xxxix} A quotation from: Powell, K. (2014) *Stigma Against Mental Illness: The Influence of Empathy, Perspective-taking, Exposure to and Familiarity with Mental Illness*. The University of Memphis dissertation. August 2014.

^{xl} The following citations support these bullet points: Darvasi (2016). “Empathy, Perspective, and Complicity: How Digital Games Can Support Peace Education and Conflict Reduction.” unesdoc.unesco.org/images/0025/002599/259928e.pdf Farber & Schrier (2017). “The Limits and Strengths of Games as ‘Empathy Machines’”: <http://unesdoc.unesco.org/images/0026/002619/261993E.pdf> Foster, Shah & Barany. (2017). *Projective Reflection: Facilitating Learning as Identity Exploration Through Game-Based Learning*. https://www.researchgate.net/publication/320471724_Projective_Reflection_Facilitating_Learning_as_Identity_Exploration_Through_Game-Based_Learning Games for Change website, <http://www.gamesforchange.org> Schrier (2015). EPIC: a framework for using video games in ethics education. https://www.researchgate.net/publication/283788911_EPIC_a_framework_for_using_video_games_in_ethics_education Schrier (2018). How can we use games to understand others better. <https://www.adl.org/blog/how-we-can-use-games-to-understand-others-better> Schrier (2018). *Guiding Questions for Game-Based Learning*. J. Vogt et al. (eds), *Second Handbook of Information Technology in Primary and Secondary Education*, Springer. T.L. Taylor, (2006). *Play between worlds*. <https://www.amazon.com/Play-Between-Worlds-ExploringCulture/dp/0262512629/> Yee’s works on identity: http://www.nickyee.com/daedalus/gateway_identity.html Yee, Nick. (2014). *Proteus Paradox*. <https://yalebooks.yale.edu/book/9780300190991/proteus-paradox>

^{xli} This guide was based on: (1) A review of previous research on empathy, identity, bias and games, as well as relevant games. This included the research such as *Reducing Bias through Gaming*” (GAME/ The Italian Journal of Game Studies; Schrier, 2019), at: <https://www.gamejournal.it/reducing-bias-through-gaming/> and *The Limits and Strengths of Using Digital Games as Empathy Machines*,” (UNESCO whitepaper; Farber & Schrier, 2017), https://unesdoc.unesco.org/ark:/48223/pf0000261993_eng. (2) Consideration of design approaches such as:Tracy Fullerton’s approach to game design: Fullerton, T. (2016/2019). *Game Design Workshop*. CRC Press; The transformational game design model (Sabrina Culyba). Culyba, S. (2018). *The Transformational Games Framework*, ETC Press, <http://press.etc.cmu.edu/index.php/product/the-transformational-framework/>, How to make games that matter (Jesse Schell & Barbara Chamberlin): A Framework for Making Games that Matter, presented at Connected Learning Summit 2018, <https://docs.google.com/document/d/1ekXtk61kgCIIF1j4Z2UFbeSpUhtF0QCWgiNMoe7-3Xk/edit>; Guiding questions for educational games (Karen Schrier). Schrier, K. (2018). *Guiding Questions for Game-Based Learning*, Springer, https://www.researchgate.net/publication/325357728_Guiding_Questions_for_Game-Based_Learning; Salen/Zimmerman’s and Sharp/Macklin’s approach to iterative design. Zimmerman, E. & Salen, K. (2004). *Rules of Play*. MIT Press; Sharp, J. & Macklin, C. (2019). *Iterate: Ten Lessons in Design and Failure*. MIT Press. (3) Conversations about game jam events and learnings from ADL’s first empathy game jam in 2018; (4) Conversations with ADL Education, ADL’s anti-bias educators and their training approach and guide; (5) A “charette” or design think tank with leading scholars and practitioners at the intersection of game design, identity, and bias. These include: Seth Bleecker,

Sharang Biswas, Dr. Jason Engerman, Dr. Joan Getman, Ailsa Gillam, Elaine Gomez, Steven Hodas, Daniel Kelley, Heidi McDonald, David Or, Dr. Lindsay Portnoy, Zhenzhen Qi, Dr. Mamta Shah, and Dr. Karen Schrier.

^{xlii} Each in-person site featured a few different roles: (1) **An ADL representative**. We hosted the jams in locations near ADL regional offices. This person helped to secure a game jam site and co-hosted the event. (2) **An ADL anti-bias facilitator**. Most of the sites featured a facilitator who participated in the game jam on one of the teams. (3) **A Global Game Jam affiliate**. This person helped to organize and run the logistics for the game jam. (4) **Game Jam participants**. This was a mix of participants from local colleges and game development studios, as well as hobbyists and game enthusiasts.

^{xliii} An additional 46 participants were in the pilot study, the findings of which were not reported in this white paper but will be reported in the future. For more information on the methodologies and the measurements used, please see a forthcoming journal article that will detail this.

^{xliv} Teams of participants were randomly assigned to a condition. Players were first invited to organize into groups. Then, game jam organizers randomly placed the groups into one of three conditions. All participants in that group were then assigned to the condition as well.

^{xlv}

Condition	<i>N</i>	%
Control	29	34.5%
Guide	32	38.1%
Educator	23	27.4%
Total	84	

Table 10. Number of participants in each condition. The conditions are not equal as participants were randomly assigned by team at different locations.

^{xlvi} This shortened time period and schedule was due to being respectful of Shabbat.

^{xlvii} This measure was adapted from the Gamer Identity measure (Kowert & Oldmeadow, 2015).

^{xlviii} 26.2% of the participants reported that they understood their identity better due to the event (22.6% were neutral), and 40.5% reported that they understood other’s identities better due to the event (31% were neutral). 47.7% of participants felt they were able to express their identities as a result of the game jam event (29.8% were neutral). 65.2% of participants felt they were able to express other’s identities through the game jam event (26.2% were neutral).

^{xlix} We did not quantitatively measure how a participants’ identity changed in other ways, these results are qualitative.

^l For specific results, please see a forthcoming journal article. For instance, the scale for willingness to make games about empathy, bias, and identity was from 1-5, where 1 was “not at all willing” and 5 was “extremely willing.” The average ended up between “willing” and “extremely willing” for both pre- and post-means.

^{li} The participants in the educator condition reported significantly more interest in making a game about bias after (M = 4.39, SD = .891) versus before (M = 4.00, SD = .953), t(23) = -2.598, p = .016.

^{lii} The perspective-taking and empathic concern measures are based on the Interpersonal Reactivity Index (IRI) (Davis, 1983). We also measured participants on a number of bias-related indices. We measured Bias Awareness using two questions adapted from Perry and colleagues’ Bias Awareness scale (Perry, Dovidio, & Murphy, 2015), which were averaged to form an index of Bias Awareness before the Game Jam (α = .92) and after (α = .95). Bias Awareness increased slightly after the Jam (M = 4.14, SD = 1.64) relative to before (M = 4.05, SD = 1.80) but this difference was not significant, p = .40. Knowledge of bias was measured using two questions that were averaged to create an index of Bias Knowledge before (α = .61) and after (α = .75) the Game Jam. Knowledge in fact decreased after the Jam (M = 4.24, SD = 1.48) versus before (M = 4.32, SD = 1.42) but this decrease was not significant, p = .30. Results were similar across conditions, p’s > .20.

^{liii} 27% of the participants were in a group that had an ADL team member. Participants who had the educator as part of their group reported a greater willingness to make games about identity and bias, while those in the other conditions did not. However, the number of participants in this condition was only 23, severely limiting the conclusions that we can draw. Future research can explore whether and how the presence of the anti-bias educator supported the group in their exploration of identity

^{liiv} For instance, it affected how participants in different groups could interact (such as playtesting each other’s games or having audio people work on audio for all of the games), as participants needed to have limited contact with other groups given the need for separate conditions. Game jam organizers who were used to being fully transparent with game participants also struggled with ensuring research-related rigor.

ADL by the numbers | OUR IMPACT

EDUCATE

5.2m
STUDENTS



impacted through our Holocaust education program, Echoes & Reflections, since inception in 2005

27k
EDUCATORS



acquired skills to teach anti-bias concepts and support students in using ally behaviors to challenge bias and identity-based bullying

30k
EDUCATORS



receive ADL education updates and curriculum resources

ADVOCATE

46
STATES + D.C.



have enacted Hate Crimes legislation based on, or similar to, the ADL model produced in 1981

MONITOR

2.6m
TWEETS



containing anti-Semitic language were identified in our 2016 report about online harassment of journalists

250



WHITE SUPREMACISTS

who attended the 2017 “Unite the Right” rally in Charlottesville were identified by ADL in cooperation with local law enforcement

PARTNERS

300+
MAYORS



pledged to join ADL through the Mayors’ Compact to combat hate, extremism and discrimination, a new partnership with the U.S. Conference of Mayors

INVESTIGATE

11k
CASES



in which ADL has provided extremist related information to law enforcement, including critical, up-to-the-minute background on extremist threats

TRAIN

100%



of all new FBI agents have been trained by ADL since 2001

+150k
LAW ENFORCEMENT
PROFESSIONALS



were trained by ADL in the last ten years, helping them to fight extremism and build trust with the communities they serve

ADL’s Approach

ADL has a comprehensive approach to address anti-Semitic incidents and to counter all forms of hate. ADL’s Center on Extremism is a foremost authority on extremism, terrorism and all forms of hate. The COE’s team of investigators and analysts strategically monitors and exposes extremist movements and individuals, using cutting-edge technology to track real time developments and provide actionable intelligence and data-based analysis to law enforcement, public officials, community leaders and technology companies.

ADL also does this work through:

- **Reaching 1.5 million students** annually with our anti-bias and anti-bullying programs
- **Building coalitions among diverse organizations and communities**, and boldly advocating against government policies, organizations and people that promote anti-Semitism, racism and bigotry
- **Working in Silicon Valley through ADL’s Center on Technology and Society**, which works in close partnership with tech industry leaders to establish best practices for addressing cyber hate and to develop proactive solutions to fight the spread of anti-Semitism and other forms of hate online

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Founder, Craigslist

Eli Pariser

Chief Executive of Upworthy,
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and a Co-Founder of Avaaz.org

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Constitution Center

Jeffrey Saper

Vice Chair, Wilson Sonsini

Katie Jacobs Stanton

Consulting (Color Genomics,
Twitter Alum)

Anne Washington

Public Policy Professor,
George Mason University

Whitney Wolfe Herd

Founder and CEO, Bumble

The ADL Center for Technology & Society

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ADL SVP Policy

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ADL VP Innovation & Strategy

Daniel Kelley

CTS Associate Director

For additional and updated
resources please see:
www.adl.org

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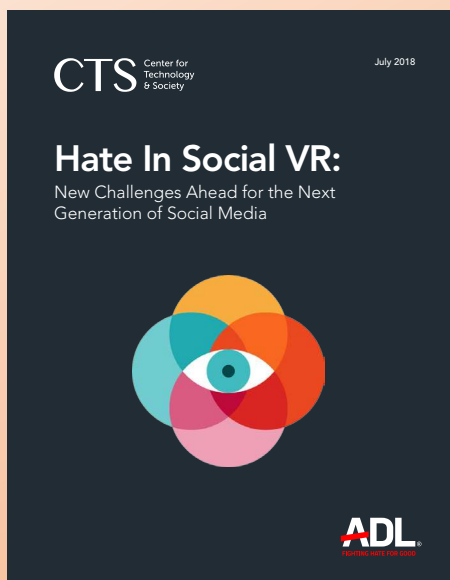
Take Action

Partner with ADL to fight hate
in your community and beyond.

- Sign up at adl.org for our email newsletters to stay informed about events in our world and ADL’s response.
- Report hate crimes and bias-related incidents in your area to your regional ADL office.
- Engage in respectful dialogue to build understanding among people with different views.
- Get involved with ADL in your region.



Featured Resources on this topic:



Hate in Social VR



Game Jam



How We Can Use Games to Understand Others Better

For a database of reports and resources on extremism, cyberhate and more, visit [adl.org](https://www.adl.org).