



# The Transformative Power of Games

By MJ Johns

Games have an unusual power as an interactive medium. They say a picture is worth a thousand words—how many more might it be worth when you can interact with, manipulate, and get feedback from the image you see? Playing a game is like having a conversation—you put a bit of yourself in, and you get something new and unique in return.

This article will look at examples of how games can impact people on an individual and societal level, and how a well-designed gaming experience can bring about positive change in our lives. From bringing families and friends closer together and connecting strangers across the globe to making science more accessible and innovating how we teach and learn, games have an incredible potential to change the human experience.



Figure 1: Words with Friends, Zynga

## Games Connect Us

Online games are often thought of as places to play with anonymous strangers you will never meet. Many games, however, are designed to build connections between people who already know each other, or foster new friendships in the making.

Several years ago, when I was in grad school, my mom was diagnosed with cancer. She had several rounds of chemotherapy to go through, and being in another state, I felt powerless and unable to support her. We began playing “Words with Friends” so she would have something to do during the treatments—so she wouldn’t be alone.

We would start five to 10 games at a time, so there were always several available for her to take a turn. I would take my turns while on the bus or between classes, and tried to time them to line up with when her treatments would be.

The asynchronous nature of this gameplay allowed us each to play on our own schedule. Synchronous games like “Fortnite” or “League of Legends” allow players to connect in real time. When paired with voice chat, these games create an experience like “hanging out” together, even if players are miles apart.



Figure 2: Fortnite, Epic Games

In our current condition of quarantine, being able to connect and stay in touch has never been more important. Playing a game while talking to someone makes it so much more than a phone call. Though you are physically miles apart, in the game world you are right next to each other.

## Games Empower Us

We all have days where real life weighs us down, making us feel small or unimportant. Games can help us turn the tide and give us confidence—in the game world I can build a house or take on a horde of zombies, or grow a field of crops to cook into perfect meals, or manage a zoo full of dinosaurs.



Figure 3: Jurassic World Alive, NBC Universal



Games also give us the power to create an ideal version of ourselves, allowing us to recognize and build on our own best attributes.<sup>[1]</sup> Through living out these alternate character versions of ourselves, we also grow to have a better understanding of who we are.<sup>[2]</sup>



Figure 4: World of Warcraft, Blizzard Entertainment

## Games Spread Joy

Playing a well-designed game, whether alone or with friends, brings a sense of joy. The feeling of accomplishment when solving a puzzle or beating your previous best score or unlocking new content not only makes us feel good about what we've done, it also makes us excited for more.

Games have demonstrated the ability to satisfy such psychological needs as competence, autonomy, and relatedness.<sup>[3]</sup> Many activities in our lives rely on extrinsic motivation, such as earning a paycheck or getting a grade. Games, on the other hand, rely on intrinsic motivation—our own internal desire to proceed with the activity, and the joy that results from taking part in it.

## Games Educate

Due to the intrinsic motivation that drives player engagement, games have become powerful tools for the proliferation of knowledge and awareness. The process of learning to play a game closely parallels the experience of learning any new skill or acquiring new knowledge.

The advent of Virtual Reality (VR) has created a unique opportunity to build fully immersive virtual experiences. In my work with the VR Futures team at Planet Texas 2050, (<https://bridgingbarriers.utexas.edu/planet-texas-2050/>) I have seen first-hand the value of immersing the user into the information you want to share. For the past year we have been developing a VR experience to raise awareness of the science behind climate change and population growth, and the impacts these stressors will have on Texas.



Figure 5: VR Futures Project, Planet Texas 2050

The first minigame in our VR experience introduces the players to some terminology and asks them to make connections between resources based on that word (for example, “Permeability” or “Heat Island Effect”).

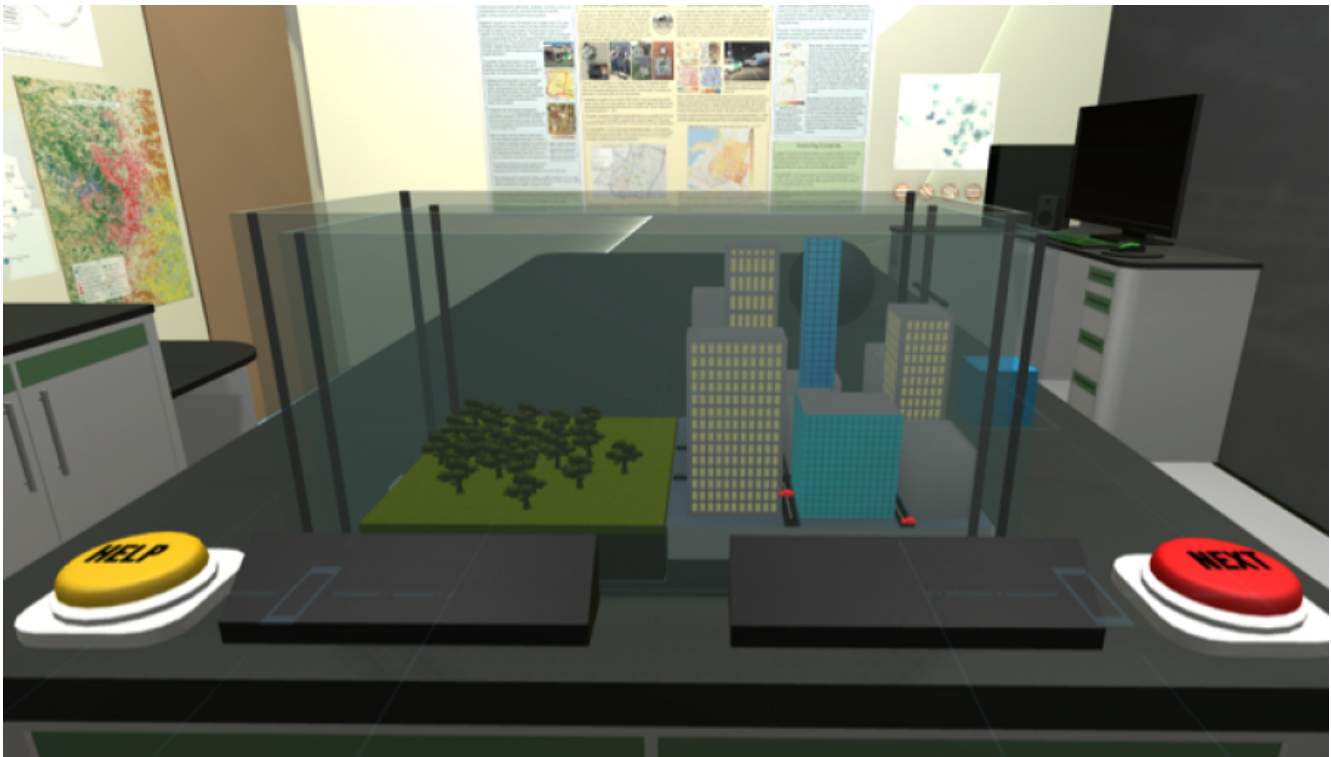


Figure 6: VR Futures Project, Planet Texas

The virtual environment gives us the ability to convey information visually. Rather than just providing a definition of “Permeability,” we can actually show it in action using a simulation of a city versus a forest receiving heavy rainfall.

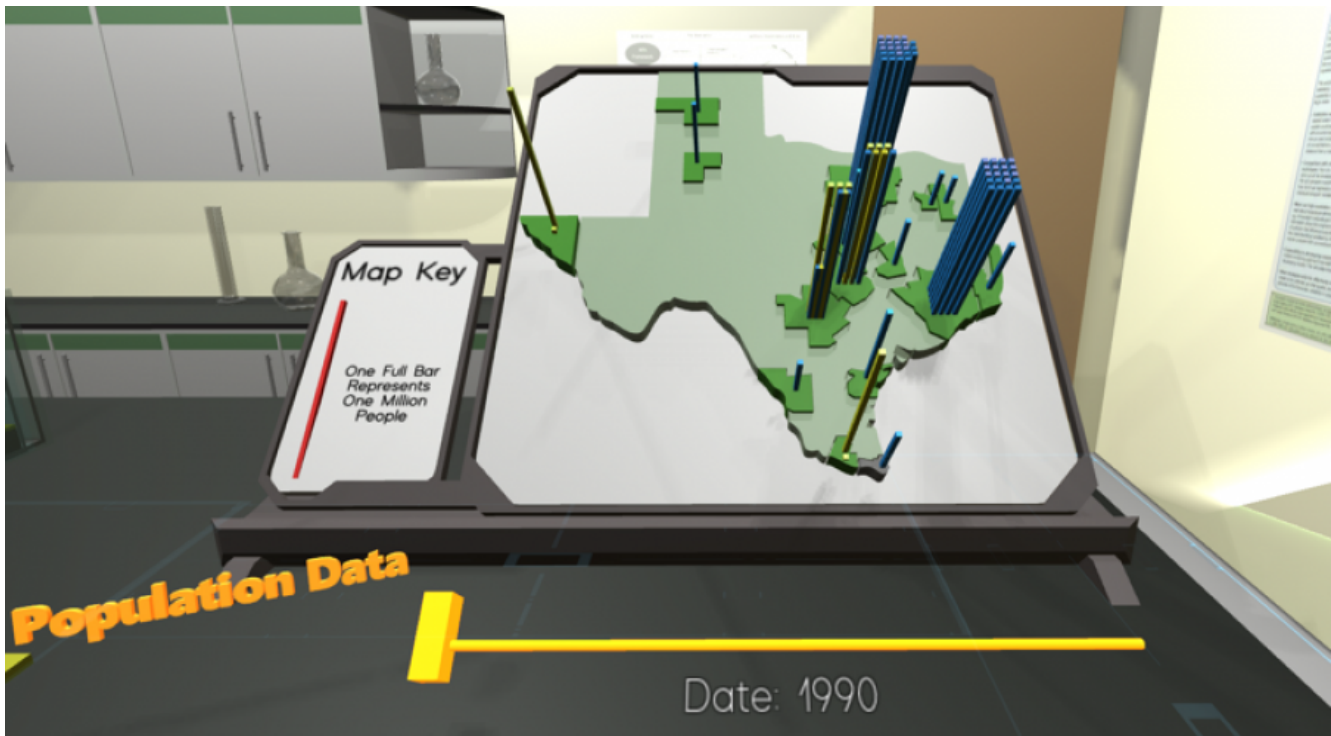


Figure 7: VR Futures Project, Planet Texas

Next, the user can interact with a slider to view a map of population data by year, including projections for future years. By giving the player agency over which years to view, the information becomes more impactful



and engaging.



Figure 8: VR Futures 360 Image, Planet Texas 2050, Photo by Danny Weeks

At the end, the player watches a 360-degree video demonstrating the feeling of being in different population densities.

VR allows not just glimpses of the future, but also an enlightening exploration of the past. Austin-based VR studio FarBridge uses VR experiences to transport users to historic locations around the world that might otherwise be inaccessible to them. Virtual worlds have much to offer the field of education.



Figure 9: VR Exploration of Historical Location, Photo credit FarBridge

## Games Transform

<b>Connect</b>	Games bring people together from anywhere in the world
<b>Empower</b>	Games build up our self-esteem and let us do things not normally possible
<b>Spread Joy</b>	Through intrinsic motivation, games satisfy our psychological needs
<b>Educate</b>	Gaming platforms like VR open up a world of possibilities for education & awareness

Through all these, games transform us as individuals and as a society. Games have the power to bring about positive change by connecting us, empowering us, spreading joy, and educating. There's nothing quite like the experience of entering an alternate world to interact with things that would normally be outside our grasp.

## Acknowledgments

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## Image Sources

**Figure 1:** <https://play.google.com/store/apps/details?id=com.zynga.words3>  
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**Figure 2:** <https://www.epicgames.com/fortnite/en-US/save-the-world>  
(<https://www.epicgames.com/fortnite/en-US/save-the-world>)

**Figure 3:** <http://www.jurassicworld.com/games> (<http://www.jurassicworld.com/games>)

**Figure 4:** <https://worldofwarcraft.com/en-us/return> (<https://worldofwarcraft.com/en-us/return>)

**Figure 5:** <https://www.chess.com/article/view/the-joy-of-reviewing-chess-games>  
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**Figure 9:** <https://medium.com/@FarBridge/masterworks-journey-through-history-a-new-...>  
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### School of Design and Creative Technologies

2301 Trinity St. (Street)

Austin, TX 78712

[512-471-5446 \(tel:+1-512-471-5446\)](tel:+1-512-471-5446)

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