

commons.pratt.edu/vras

The Project

VR is an emergent and multifaceted technology. So often the conversation revolves either around its uses in gaming or, in recent times, Facebook's foray into the future of social media. While both of these developments are fascinating, we believe that VR has potential to be used across all facets of our society, from arts and entertainment, to new ways to educate and aid individuals, and even to help push humans forward into the final frontier. We will create a website to explore and communicate many of these potential facets. Each member will choose 1-2 topics around VR and research/develop content for a standalone page.

The Authors



Ziqi

Recent graduate from journalism school and now learning DAV. Cat person who dreams about retiring.



Jiacheng

Statistics undergraduate degree with IST minor, current DAV student.



Sara

Journalist and former dog mother currently searching for her kitty-daughter. Graduate student in DAV.



Tk

Philosophy & CS graduate turned Analyst. Now a DAV student with a love for fonts and colours.

The Technology

The base of the website is built on wordpress and hosted on the Pratt commons to better enable content management. The theme we selected from wordpress was altered with custom CSS to match our topic. We also considered accessibility when it comes to fonts, color, multimedia elements, and the organization of the website. We also used the functions on wordpress to embed YouTube videos as well as Tweets to serve the content that we are proceeding.

The Design

The base design we used was the Paperio Child theme created by themezaa. From there we tweaked the original colour palette to create a more unified red/black.white experience. A custom logo was created in illustrator. An off white was chosen as the background colour for the body in order to better differentiate it from the navigation menu. We also opted for a flat navigation spread in order to make the site easier to use. Some custom CSS was added to the footer in order to make the font visible with the chosen colour scheme

The Reflections

There were some initial concerns surrounding producing a website as a group, since with multiple people decisionmaking always has the potential to become fraught. However, we found that, thanks to fluid ideating sessions and continual, transparent communication, we were able to divvy up the work and that the workflow from beginning to end was smooth.

One issue that we talked about when creating the website was the lack of access to VR headsets. It is very difficult to try to explain these contents knowing that most of our audiences for this website probably do not have VR headsets at home. How do we best explain VR to them, so it's not just a concept? Our solution was to use videos of actual content you can see in VR, actual people using VR, and actual creation happening in VR so that our audiences can make sense of what we are talking about. We had discussions about if we can rent out a VR headset, and jokingly said that it would be great if the website can also be viewed in a VR headset with cool effects. Even though these thoughts seem impossible right now, we still hope that in the future, as VR becomes more accessible, our talks can become reality.

This website only scratches the surface of the topics that we picked, but we hope that it gives people a different perspective when thinking and talking about VR. VR is a piece of technology, but more importantly, VR is art, a new space, a new way of looking and learning, a new way of collaborating and designing, new ways of healing. It introduces us to different worlds and stories, new experiences and feelings.

The Content

Introduction - Tk Cram

This page acts as not only an introduction to the world of VR, but also as a jumping off point for the rest of the website. It's comprised of three major components. The first is a general breakdown of terms on what VR is, and some links if the user wants to learn more. The second is a timeline of developments in VR, mostly from the technological point of view as including pop culture references became cumbersome (Sorry Wachowskis). Thirdly it provides an overview of the major players currently on the market what they offer. We end off with a prompt to click through to other pages on the site and explore more of what VR has to offer



as Art - Ziqi Wang

Artists in different fields are using VR in different ways to assist their immersive and interactive art projects. It aims to give the audiences some ideas on how VR is connected to arts in different ways and how this technology is pushing the boundaries of arts. VR paint brushes and sculpting programs allow artists to create art in 3D spaces, without the space limits for just 2D canvas. VR is also a place for artists to exhibit their arts, which allows them to experiment with different ways of presenting their projects and pieces, allowing more audiences to engage with their art works. For art galleries and museums, VR can help them experiment with different ways of presenting their projects and pieces, allowing more audiences to engage with their art works. Two videos are added to the page, and hopefully they will give people an idea of how VR technology is being used under different circumstances, and that they are more than just a piece of technology.

as Education - Sara Kim

VR can be a helpful learning tool in classrooms. For students learning such math as the 3D Cartesian coordinate system in which there are x, y, and z axes, VR offers a clearer understanding of how these three axes interact with one another in comparison to using a traditional 2D medium. Students can also immerse themselves in such worlds as the ocean to learn about marine biology, a computer-simulated interior of the human body in a biology class, or in space to learn about the universe in a physics and astronomy class. In higher education, students can utilize VR in a variety of disciplines. For example, in electrical engineering education, students can carry out such tasks as comparing structural differences between devices and assembling and disassembling machines and testing them under extreme conditions that would otherwise be too dangerous in a real-world experiment. There are even projects that allow users to step back in time to experience such situations as a particular sociopolitical climate from our past such as the Oakland Virtual Reality Project that allows anyone with access to a VR headset or a mobile phone in a VR cardboard case setup to experience the Black Panther Party's 1968 office in Oakland, CA, a time of great racial and class tension in the US. Some organizations even use VR to educate their employees on a variety of issues, such as safety by immersing workers in situations that simulate real life.

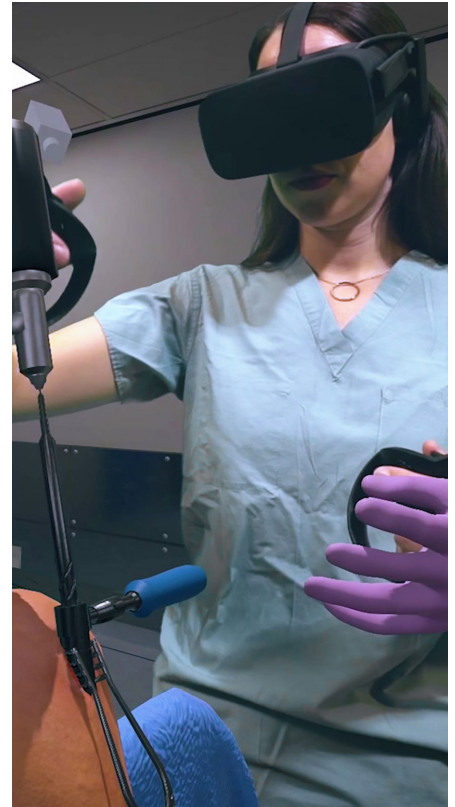


as Entertainment - Jiacheng Chen

Personal VR devices were initially introduced to the public as an entertainment tool. Its immersive interaction led to applications in gaming, travel and cinema, and completely changed the public's perception of these fields. Experience and immersion are essential elements of VR gaming. Players can see things in a virtual environment with unlimited 360-degree views, and can also access sensory simulations such as sight, sound, and touch as if they were actually there. VR movies expand the boundaries of traditional cinema, allowing the user to be not only a viewer, but also a participant. Virtual reality tourism allows people to experience the landscape freely, without the restrictions of the real world. It gives people more perspectives than ever before and brings a whole new experience to the journey.

as Teleoperations - Tk Cram

Since the early days of VR, it has had military applications. McDonnell Douglas created an early prototype of VR head mounted displays to train pilots. Since then it has been used to train infantrymen, construction workers, and doctors, all in a safe training environment. But with the development of robotics and communications technologies, an exciting development is the ability to hook up these VR simulations directly into real world agents. We've all seen the video of them performing surgery on a grape, and that was only a proof of concept. This has promising applications in cleaning up areas contaminated with radiation or providing expert skills anywhere in the world. Perhaps most exciting is the ability for astronauts to run robotic missions, such as exploring planetary surfaces or doing external satellite maintenance all while in the safety of their spacecraft.



as Social Media - Ziqi Wang

VR technology provides people with a variety of social platforms and people are using them for different purposes. Some of the platforms are purely for social interactions and function like social media in the real world, and others like gaming platforms on VR can also act as social platforms. These programs allow people to create their own avatar, interact with friends in the virtual world. These places not only allow people to socialize and interact with each other, but also allow creative collaborations between people. Artists use these platforms to create as well as present their work. During the Covid-19 pandemic, many companies also moved their working spaces there, so that their employees can do their work more efficiently. This also helps people to feel less lonely, giving them the psychological support that they need. Video on how to create a virtual movie theater to watch movies with friends to demonstrate just how much VR can mimic the physical world and allows actual conversation to happen. There is also the latest news of a couple being the first to get married in the Metaverse, which further proves how VR brings people together.

as Viewing - Jiacheng Chen

VR is a much more natural and immersive form of media that transfers real-world objects into virtual environments. Its properties as a medium in a commercial context increase expression efficiency and reduce the gap between creators and consumers. For example, by immersing themselves in a virtual replica of their work, architects are able to create more compelling scenes. With VR headsets and controllers, designers can view and modify the details of their designs in a more intuitive way. And it's not just designers who are benefiting from VR technology; clients are also using the same tool to make better decisions. In the real estate market, clients can experience the details of a building in a 3D environment before it is built, helping them make more informed purchase decisions.



as Wellbeing - Sara Kim

Virtual reality exposure therapy (VRET) is a treatment option for those struggling with issues such as phobias, anxiety, and PTSD. Using a VR headset, the patient works with an experienced therapist to confront their fears through experiential learning without being exposed to the possibility of real physical danger and/or an emotional meltdown in front of onlookers. While one potential fallback can be the unrealistic feeling of computer-rendered digital worlds, some therapists use virtual reality cameras to record real-life situations, locations, etc, for a more realistic experience. Examples of patients using VRET are soldiers who've experienced war and people who have a variety of phobias, such as a fear of heights, flying, public speaking, etc. VR immersion for meditation is another tactic used to calm anxieties in general VR users as well as patients who suffer from anxiety and mood disorders.

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