Overview
Relevant Sources:

## Overview

The following explores important features of virtual reality in the field of disability justice. This review covers some of the relevant VR applications and features, including accessibility, rehabilitation, empowerment, education, and social inclusion.

- 1. Accessibility: Immersive environments have the potential to provide sensory experiences that would otherwise be inaccessible for some users by removing physical barriers, such as audio cues and hepatic feedback for visually impaired users or text-to-speech-to-visulizes for vernally impaired users. VR headsets and the hardware itself is very inaccessible due to design choices as well as physical limitations. Still, VR can be used to simulate how spaces can be designed in more inclusive ways
- Rehabilitation and Therapy: VR can provide immersive and interactive environments for rehabilitation and therapy purposes. Individuals with mobility impairments can use VR simulations to practice movements and improve motor skills. VR can also be utilized in cognitive therapy, such as addressing memory, attention, and executive functioning challenges.
- 3. Empowerment and self-advocacy: VR can empower individuals with disabilities by providing opportunities for self-expression and self-advocacy. Through immersive experiences, individuals can explore virtual scenarios that simulate real-world challenges they may encounter and develop strategies to overcome them. This can foster confidence, assertiveness, and independence.
- 4. Education and Skill Development: VR can support inclusive education by providing interactive and engaging learning experiences. It can create virtual classrooms, simulations, and scenarios that enable students with disabilities to participate in activities they might find challenging in traditional settings. VR can also assist in developing vocational skills by offering simulated work environments.
- 5. Social inclusion and empathy building: VR can promote social inclusion by creating virtual environments where individuals with disabilities can interact with others, participate in social activities, and experience different perspectives. It can also be used to raise awareness and empathy among the general population by simulating disability-related experiences, helping to reduce stigma and increase understanding.
- 6. Pain management and relaxation: VR has shown promise in pain management for individuals with chronic pain or during medical procedures. By immersing users in calming and visually engaging environments, VR can distract from pain sensations and induce relaxation, reducing the need for pharmacological interventions.

## **Relevant Sources:**

- https://www.boia.org/blog/what-the-future-of-virtual-reality-means-for-accessibility
- https://www.wired.com/story/virtual-reality-accessibility-disabilities/
- https://educatorsinvr.com/2019/05/31/accessibility-disabilities-and-virtual-reality-solutions/
- <a href="https://disabilityinsider.com/story/how-can-virtual-reality-technology-help-persons-with-disabilities/">https://disabilityinsider.com/story/how-can-virtual-reality-technology-help-persons-with-disabilities/</a>
- https://pubmed.ncbi.nlm.nih.gov/9195138/
- https://www.researchgate.net/publication/323437286\_Virtual\_Reality\_as\_a\_Support\_Too l\_for\_the\_Treatment\_of\_People\_with\_Intellectual\_and\_Multiple\_Disabilities\_A\_Systemat ic\_Literature\_Review