

Enhancing Youth Scenic Education through Augmented Reality

Scenic Education and Its Components

Scenic education goes beyond teaching our youth about the beauty and wonder of the natural world; scenic education is about forming the connection between the value of scenic beauty in our communities and the benefits that come with it. Encouraging young people to look at the world around them is the first step in having them build a genuine relationship with the environment. Furthermore, while classroom learning is important for educators to provide the foundations for scenic education, some of the most memorable learning experiences occur in active demonstrations and hands-on learning. By taking the classroom outdoors, scenic education provides real experiences for our youth to look back on, through learning activities and hands-on interaction. And now, as technology continues to make significant advances, we can use technological tools and applications to enhance the experience, bringing even more fun to the great outdoors.

Environmental and Conservation Literacy

As the planet and its resources become increasingly devastated by the adverse effects of climate change, natural disasters, drought, and habitat destruction, it is necessary for the youth to understand the intricate relationship between humans and the natural world. If they understand how our environmental systems operate, they will be able to make informed decisions to preserve our planet. In a world that limits exposure to nature and is overwhelmingly full of technological distractions, scenic education is the first tool in bridging any environmental and conservation literacy gaps. By creating meaningful firsthand experiences and memories, scenic

education serves as a spark for the next generation to understand the importance of environmental conservation and to inspire them to take action to defend our planet.

Agents of Discovery

A strong example of how technology can be used to enhance scenic education, Agents of Discovery is a mobile app that employs augmented reality (AR) to provide an exciting learning experience and challenge users to think about the environment around them.

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The Benefits of Augmented Reality in Scenic Education

AR in scenic education is a transformative bridge between technology and nature, creating a dynamic learning experience that captures the best of both worlds. By integrating digital elements into the natural environment, AR enhances engagement among learners. It transforms a simple walk into an interactive journey, where students can unlock information about plants, animals, or historical landmarks in real time, fostering a sense of excitement and discovery. Additionally, AR has the potential to cater to individual learning styles, providing a personalized educational journey. For instance, the Agents of Discovery app has numerous types of “challenges” that cater to multiple different learning preferences, including interactive games, open-ended responses, photo-submission challenges, and multiple-choice questions. Students can explore topics at their own pace, receiving relevant information based on their interests and abilities. This adaptability not only makes learning more enjoyable but also promotes skill development by encouraging critical thinking, problem-solving, and technological literacy.

Addressing Challenges

Unfortunately, while AR and other technology show a lot of potential to enhance scenic education opportunities, it is not without limitations. AR technology may not be accessible to all members of the population. For instance, users cannot play Agents of Discovery without a smartphone or other mobile device to download the application, creating a socioeconomic barrier for this resource. Furthermore, because many missions are location-based, youth who are unable to travel to the mission location or lack supervision are unable to complete certain challenges. However, partnering with local parks that are accessible or often staff supervision can be an effective way to combat this issue. Lastly, there are also language barriers, as the challenges are written in English and need translations for other languages. To bridge these gaps, developers can offer alternative ways to engage in scenic education, such as implementing a shared devices option and creating more at-home challenges, as well as working on translations for major languages.

Balancing Screens and Education

Navigating through this new technological era, it is essential to protect the connection between youth and the environment. However, as screens continue to dominate our public and private spaces, youth are spending less time outdoors and more time online. There are numerous benefits to spending time outdoors, such as increased physical activity, improved respiratory health, increased Vitamin D production, and reduced stress levels. As today's youth spend less time outdoors, they are missing out on these crucial health benefits by engaging in a sedentary lifestyle and social isolation. Furthermore, increased time indoors also contributes to a lack of

environmental and conservation literacy. As our youth becomes more engaged indoors and online, their understanding of the natural world deteriorates, also diminishing their sense of environmental responsibility. However, by developing fun technology and applications that encourage outdoor engagement, we can enhance scenic education while adapting to the interests of modern youth. In doing so, we can foster a greater understanding of the environment and the importance of conservation—inspiring environmental stewardship in the next generation of future leaders.

Another significant challenge in employing AR and other technology in scenic education is ensuring a balance between screen time and outdoor exploration. That balance is necessary to ensure that technology is adding to the natural experience instead of taking away from it, which can be achieved by emphasizing technology as a supplement to, rather than a replacement for, outdoor engagement. Applications can implement time limits for screen use and design activities that space out screen interaction. Furthermore, those who are supervising the outdoor exploration can encourage reflective moments and open communication about the challenges. It is important to note that spending time outdoors without screens does not necessarily equate to educational value; however, it can help provide more structure to outdoor time.

Recommendations for Implementation

While Agents of Discovery is already available for common use, through download on the Apple App Store or Google Play Store, we can expand its reach by incorporating the application into official scenic education programs. Not only will the application provide an enhanced

educational experience, but promoting the use of AR applications such as Agents of Discovery creates the potential for more and improved technology to be developed.

Educators and facilitators will play a significant role in the successful integration of AR applications in the classroom, so it is imperative to provide them with comprehensive training and guidance, thus equipping them with the necessary tools to ensure a smooth educational journey.

Conclusion

Scenic education serves as a transformative vehicle for fostering environmental and conservation literacy, reconnecting young minds with the natural world. Augmented reality, exemplified by tools like Agents of Discovery, emerges as a powerful catalyst in supplementing the impact of scenic education, offering dynamic and engaging learning experiences. Considering these insights, a compelling call to action resonates: educators, nonprofits, policymakers, and technology developers must unite in collaborative efforts. It is essential to prioritize and integrate augmented reality applications into environmental and conservation education initiatives for the youth. By harnessing the power of technology within the realm of scenic education, we have the collective potential to cultivate environmentally conscious citizens, equipped to safeguard and appreciate the beauty of our planet for generations to come.