

Virtual Ethics: Questions to Ask as We Enter a New Virtual Era

Over the past year there has been a phrase written and shared on social media. A phrase that is celebrated among friends when walking on the streets or while sitting in classrooms. It is shouted as a jubilant battle cry and call to arms among fellow players. The phrase? “DO IT FOR THE EEEVEE!”

Though the popularity of the app has diminished since it was first released in July of 2016, Pokémon GO is still a widely played game. However, when the game was released there were many unintended consequences. Players were getting hurt because they were playing the game while driving, trespassing, and walking into streets among other daring feats. Whose fault is this? Is it the players’ for attempting to get the poké stop? Or is it Niantic’s for putting it there? Furthermore, when these questions get brought to court who will decide the “correct” and legally perpetuated answer?

Virtual, augmented, and mixed reality are here and it is no longer a question of how or why but what, where, and who. From Pokémon GO to the HTC Vive both developers and consumers are responsible for the success of these technologies and what content gets explored and developed. So now we must start asking ourselves *what* gets developed and *what* effects this may have on users as well as *where* these technologies will be accessible. Furthermore *who* will decide what content is important and should problems arise in what ways these should be handled.

Aleshia Hayes presentation at the Dawn or Doom 2017 conference, *Ethics of Presenting*

Information in VR/AR/MR addresses these concerns. She specifically asks what information is portrayed, who has access to these markets, and what are the possible unintended consequences when developing for these technologies? She presents a few specific examples to start discussing these ideas in more depth: virtual classrooms and developing AR and VR applications for kids, virtual training for soldiers, and augmented reality as a means to treat phobias through exposure therapy.

Providing opportunities for kids in the virtual and augmented worlds is critical. Some people question what the consequences of exposing kids to these technologies at such an early age will do to their development. These are important questions that have yet to be studied due to IRB restrictions and the age of the technology themselves. However, as schools are starting to introduce virtual and augmented reality into classrooms as a supplement or replacement for books and other practices, the question becomes even more complex. Though differences in education among children is not a new issue, accessibility becomes an even more prominent concern with these applications. So now it is time to consider how young can we introduce these technologies to kids and how to make it as accessible and fair as possible.

The next topic addresses the responsibilities on developers when creating training simulations of any kind. Hayes explains that, though virtual and augmented reality offer a great way to explore and practice dangerous tasks through simulation, there is a great burden on the developers to get things just

right. For example, if a developer creates AI that does not react in realistic ways when training soldiers and this false training translates onto the battlefield then the developer is at least partially at fault. Furthermore, there should be an ethical obligation for researchers to continue studying what cues in the simulated and virtual worlds that may seem natural and realistic actually aid in bad practice.

The last main subject of Hayes presentation dealt with treating phobias. Obviously when applying any sort of psychological treatment to a patient due diligence on part of the doctor is very important. When the use of technology is added there is an expanded role of responsibility for the developers. As patients are facing their fears with exposure therapy it's very important to track their stress and fear. Computer glitches are not always the fault of an application developer, but if something should happen during a simulation, say the visualization flickers out of existence as some older computer connection burns out or the computer randomly shuts down, the patient could experience some heightened trauma. Again, whose fault is this, who decides, and how can it be combated?

These are just a few very specific examples of virtual and augmented reality applications and some of the broad ethical implications. They are by no means the only examples and the only ethical questions we should be asking ourselves. One way to start addressing these issues is to have developers constantly ask about unintended consequences. Hayes calls good unintended consequences

“serendipitous” consequences and unintended bad consequences “catastrophic” consequences. However, when these consequences are fully realized - such as people endangering themselves, accessibility, false training, and psychological impacts - we are still left with how to fix or alleviate these problems. So, how *do* we fix these?

Her final answer? Fundamentally – she

doesn't know and that's okay. She explains that the important part is that we continue to explore these difficult questions together and that we, as researchers, developers, and consumers, don't just leave it up to certain groups to decide.

We should not obtain a defeatist attitude at the lack of a clear resolution or path to one. The use of these technologies is a dawn of a new technological and cultural age. Nevertheless, we need to be careful when developing for these systems, as this dawn could easily dim and succumb to its sinister counterpart. She pulls from someone who, though long gone, is not new to the idea of innovation to conclude her thoughts. “To fail to plan, is to plan to fail.” –Benjamin Franklin.



<http://www.dailymail.co.uk/femail/article-4454166/Experts-using-virtual-reality-treat-phobias.html>



Aleshia Hayes is an educator, researcher, and developer focusing on emerging technologies, Gaming, and Gamification. Aleshia is passionate about implementing, developing, and measuring effective, engaging, and usable educational technologies that simultaneously encourage critical thinking and respect of diverse learners and learning styles <https://eventmobi.com/dawnordoom2017/speakers/241849/5905820>