

Libraries and the rift: Oculus Rift and 4D devices in libraries

By: [Heather M. Moorefield-Lang](#)

Moorefield-Lang, H.M. (2015). Libraries and the rift: Oculus Rift and 4D devices in libraries. *Knowledge Quest*, 43(5), 76-77.

Made available courtesy of the American Library Association and the American Association of School Librarians: <https://knowledgequest.aasl.org/>

*****© The Author. Reprinted with permission. No further reproduction is authorized without written permission from American Library Association. This version of the document is not the version of record. Figures and/or pictures may be missing from this format of the document. *****

Abstract:

Oculus Rift is a headset device that goes over the eyes; created with immersive gaming in mind, the Oculus Rift gives the user a four-dimensional experience. This isn't the same as watching 3D television; this is a headset created to take peripheral vision into account. One hundred percent of the wearer's field of view is covered; every turn of the head is calculated, and the encounter is totally engaging. Virtual reality is not new. But 4D systems are making this type of gaming and learning both fun and exciting. The user experience is very realistic, and the possibilities are wide open. There are multiple options in the 4D realm. Oculus Rift is new, and applications are still being built. The development kit, which consists of a headset, as well as a camera for tracking, is available. This type of technology maybe new and seem a little bit daunting, but integrating it into libraries and education is certain to lead to student discovery and excitement.

Keywords: 4D | virtual reality | Oculus Rift

Article:

An Oculus Rift beta share space supports sharing programs and trying out new activities on headset devices. Not only will students delve into program and app design, but their work can be shared with peers-a level of empowerment rarely achieved.

Oculus Rift?

So you might be wondering, what is Oculus Rift? What is 4D? More than likely you have already encountered virtual reality (VR), another term that can occur in this conversation. Oculus Rift is a headset device that goes over the eyes; created with immersive gaming in mind, the Oculus Rift gives the user a four-dimensional experience. This isn't the same as watching 3D television; this is a headset created to take peripheral vision into account. One hundred percent of the wearer's field of view is covered; every turn of the head is calculated, and the encounter is totally engaging (Oculus VR 2015).

The prototype was created by eighteen-year-old Palmer Luckey in his basement, using money he earned by fixing friends' iPhones (Herold 2014)- John Carmack, whose company created the game Doom, purchased the early prototype, and in 2014 Facebook bought the most recent high-definition prototype for two billion dollars (Rubin 2014). Needless to say, leaders in the gaming and tech industries believe Oculus Rift and other 4D contenders are something to invest in. What about us in libraries and education?

Technologies

Virtual reality is not new. But 4D systems are making this type of gaming and learning both fun and exciting. The user experience is very realistic, and the possibilities are wide open. There are multiple options in the 4D realm. Oculus Rift is new, and applications are still being built. The development kit, which consists of a headset, as well as a camera for tracking, is available. At the time of this writing, the Oculus Rift headset is available for those who would like to program and create visuals in 4D, an excellent opportunity for students interested in programming, game building, design, computer science, and much more.

For a fairly inexpensive 4D experience on the opposite end of the price spectrum, students can try Google Cardboard. Using a Google phone with 4D apps, users can purchase a virtual-reality do-it-yourself cardboard kit from companies like DODOCase <www.dodocase.com> and I Am Cardboard <www.imcardboard.com>. Prices range from approximately \$9.00 to \$50.00, depending on the case. Students, teachers, and librarians can also make their own headsets using plans and designs freely available at the Google Cardboard site <www.google.com/get/cardboard>. Once the Google Cardboard headset has been put together, the phone slips in, and users have an instant virtual-reality experience. If cardboard is too flimsy, Google sells plastic versions for a nominal fee. Among the apps available at the time of this writing are the Hobbit VR experience, a virtual roller coaster, and an exploration of protons.

More technology leaders are working in the virtual reality and 4D arena. As this gaming and learning format grows in popularity more companies will join in to offer further options.

Ideas for Libraries and Classrooms

Four-dimensional tools and virtual reality can be used in a multitude of ways in school libraries and classrooms. The first is using the apps with students for exploration. Reviews and news of emerging apps, activities, and games are available at the Rift Arcade <www.theriftarcade.com>. Users can engage with new apps that are being built on a continuous basis for Oculus Rift. These are not just games; these are fully immersive experiences. How about exploring molecules in a first-person virtual-reality experience? There is an app for that. With virtual reality 4D headwear users can see what it's like to be a surgeon or a cook. Oculus Rift can be partnered with Minecraft, and students can explore in 4D the worlds they are building. When students, teachers, or librarians partner Oculus Rift with gaming systems like Xbox, new games and programs, such as a simulation of space exploration, have been created. Wherever a student's head and hands move the device "follows." Virtual field trips and science experiments are another idea. Overall, the 4D experience is quite amazing.

If you have students interested in developing their own experiences, building programs and apps is an excellent idea. The most recent version of Oculus Rift has been released with that very idea in mind. An Oculus Rift beta share space supports sharing programs and trying out new activities on headset devices. Not only will students delve into program and app design, but their work can be shared with peers—a level of empowerment rarely achieved.

Naysayers

Can a virtual-reality experience replace a live experience? Of course not. Universities are starting to create virtual campus tours for Oculus Rift and other 4D devices. These virtual tours would enhance students' exploration of colleges but never take the place of visiting college campuses in person. A doctor would certainly need to work with a live patient; simulations of people are not the same as the real thing.

What virtual reality and systems like Oculus Rift can do for game development, programming, exploration, and learning design remains to be seen, but it is exciting to think about the possibilities. Some people see the integration of virtual reality and 4D technologies in education as disruptive, but many teachers and students are already using these types of technology outside of education; finding successful applications for these innovative devices in classrooms and libraries is worth exploring (Psotka 2013).

This type of technology may be new and seem a little bit daunting, but integrating it into libraries and education is certain to lead to student discovery and excitement!

Works Cited:

Herold, Benjamin. 2014 "Oculus Rift Fueling New Vision for Virtual Reality in K-12." Education Week (August 27)- <www.edweek.org/ew/articles/2014/08/27/02oculus_h34.html> (accessed January 24 2015).

Oculus VR. 2015. "Oculus Rift: Next-Gen Virtual Reality." <www.oculus.com/rift> (accessed January 28, 2015).

Psotka, Joseph. 2013- "Educational Games and Virtual Reality as Disruptive Technologies." Educational Technology & Society 16 (2): 69-80.

Rubin, Peter. 2014. "The Inside Story of Oculus Rift and How Virtual Reality Became Reality." Wired (May 20). <www.wired.com/2014/05/oculus-rift-4> (accessed January 24- 2015).