The Oculus VR

Capstone project

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Description/resources

Oculus Rift is a virtual reality head-mounted display; the Oculus VR Company developed this. Though the company was initialized in a Kickstarter campaign. A Kickstarter campaign is public benefit cooperation in New York that has started a global crowd-funding platform. This fund-raising company was established to bring creative projects to life. During the campaign they raised about two and half million dollars for the development of this product. The rift is set is be released by March 28th, 2016. This will be the first product that will allow the consumers to buy a VR headset unit. It has a whopping 1080x1200 resolution per eye and a 90 Hz refresh rate, which is about 1/3 increase compared to the Xbox One and PS4 games.

The head unit also has integrated speakers that are spread all around the device, creating a 3D audio effect. The rift has both a rotational and positional tracking sensors. The positional tracking is done by a USB IR sensor that sits somewhere in the room that will allow the rift to be used in different positions, such as standing sitting, laying down or even walking around the room. The Rift has gone through various prototypes since the campaign days. The device connects to your head like goggles and has a seven-inch screen built into the headset.

Two of the five prototypes have been on the market for developers to create content in time for the product by its release. The first developers kit was released in

2012 and the second kit was released in 2014. The rift was also purchased by a lot of fans that just wanted to see the product early and test out the technology associated with the rift. The prototype that is closest to the real product is the Crescent Bay prototype. This was presented in September 2014, during the Oculus Connect conference in LA. They had upgraded the resolution since the last prototype, made it lighter, added a 360-degree tracking for the tracking LEDs in the back of the headset.

A fellow Marymount student and also a friend of mine have already purchased the oculus rift VR and has agreed to let me see it for research purposes. This will allow me to do a better job on the project giving me a hand on approach with the product.

Thesis/risk factors:

Oculus will be the future and will exceed expectations in regards to sales. People all ages and from all parts of the world will come around to purchase the Oculus. It will break all the records held by all the other gaming platforms. This will be a success from past projects dealing with virtual reality.

The only risk factor going into this project is the product hasn't been released yet. The production and the sales will not be finalized until the first quarter of sales has been completed. This product can still be a failure overall, but from the stand point of attention the oculus is already having shows it will be a success.

Mentor

My mentor that I chose was Dr. Murphy, I couldn't have thought of a better mentor than her. She is the head of the IT department and knows all the ins and outs of development. Dr. Murphy also has a 3D printer so in a way she has her attention to virtual reality. Dr. Murphy mentioned that she has a big interest in HCI, which stands for human computer interaction. Dr. Murphy has mentioned the Oculus in our IT seminar class already as part of her power point slides and knew that she could be the best fit for being the content advisor for my capstone project.

Timeline

My time line will be determined by the due dates of the assignments. I will complete and meet with my peers and mentors at least a week before the assignment is due to allow myself enough time to complete the work at a right pace. I believe that I will need at least one week of time to work on the assignment.

Since we have completed three assignments already we have five more assignments including this one. The next peer evaluation is due by March 30th so I will start to work on the evaluation as soon the assignment is uploaded on to blackboard. Then the Project report is due about a month later but the workload will be spread out through the whole month editing and finalizing the project report. The in-person meeting with the instructor will be scheduled much before the due and Im planning to have met with you at least a week in advance by April 25th. And finally the project retrospective, this is the two-page analysis and will be the last thing to complete. I will make sure that all my assignments prior to this one is complete and will do this last.

References

There is tons of information on the Oculus Rift online. The company has a
website themselves that describes everything the product does to the tee. Wikipedia
also has a considerable amount of information regarding the rift itself. I will also be
looking into the Google news articles to see what new/relevant information has been
published for us researchers.

- https://www.oculus.com/en-us/

- https://www.kickstarter.com/projects/1523379957/oculus-rift-step-into-the-
  game

- https://www.technologyreview.com/s/526531/oculus-rift/

- http://www.wired.com/2014/05/oculus-rift-4/

- http://www.nytimes.com/2014/11/16/magazine/virtual-reality-fails-its-way-to-
  success.html?_r=0

- http://www.techradar.com/us/reviews/gaming/gaming-accessories/oculus-rift-
  1123963/review

- http://www.wareable.com/oculus-rift/oculus-rift-review

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- http://www.pcmag.com/article2/0,2817,2497577,00.asp

- http://www.pocket-lint.com/review/136621-oculus-rift-preview-the-vr-
  revolution-begins-here