­­ITC: Virtual Reality (VR) Innovative Project

Questions:

* Budget/cost (of equipment and any alteration of space necessary):
  + Equipment:
    - The cost of the VR system (goggles and cameras) is [$599](https://www.vive.com/us/product/vive-virtual-reality-system/).
    - The PC’s that are needed to run the VR programs need to be powerful. I’m getting a quote from Dell for the price of PC’s that are powerful enough to run the system. I’m guessing with our university discount that we’d be able to get them at $800 a piece.
    - Purchasing games shouldn’t be too bad. Prices range from $0 - $30.
    - Total budget for the equipment will be around $1500 - $1700 per unit.
  + Space alterations:
    - It really depends on where there is room and what the space looks like currently. In general, the room should be free of any objects.
    - The camera sensors will probably be mounted on the wall.
  + Budget:
    - I’m planning on using ITC’s budget for some if not all of the funding.
* Anticipated use/function of space and technology:
  + Immersive Learning:
    - I believe immersive learning is the greatest opportunity for the VR systems. Check out an [example of a game](http://cdn.akamai.steamstatic.com/steam/apps/256693643/movie480.webm?t=1503586227) that will help students learn the anatomy of the human body.
    - This industry is incredibly young. The variety of VR immersive learning is limited right now, but in the next year or two there will be a large increase in the number of applications.
  + Creativity:
    - The first thing that comes to mind are creative applications. Painting and other similar programs are novelties right now but pretty cool to give a sense of 3D art.
  + Games:
    - One of the coolest one’s I’ve seen so far is a [climbing game.](https://youtu.be/a5hB-9bhLkI) This is the largest category of VR development.
    - I want to make sure that this system is not used only for games. I think the games are a cool idea for getting people interested; however, I think the possibility for learning will have a larger impact on students.
  + Function of Space:
    - The function of the space is intended to be a learning space. Whether that be for studying or playing games. The specifics of the process model will have to be worked out.
    - The space can also be converted back into a normal study room for high demand times. So during finals week, the space can have tables setup and the headset could be unavailable for checkout at that time.
* Technical Requirements & maintenance needs
  + Technical Requirements:
    - See budget/costs.
  + Upgrading & maintenance needs
    - I’ve opted to spend a little bit more money on the PC’s in order to “future proof” them a bit. The programs for the VR headsets will be getting more and more processing intensive in the future. In order to ensure that the system is functional for the next 3-4 years, we’ll be looking at getting a few steps up from the minimum requirements.
    - Maintenance is something I’m still looking into at the moment. I’m thinking that support for the PC’s will operate the same as the group study rooms. The equipment itself will be different. I’m not sure how durable the headsets are. I know that there are VR arcades in Minneapolis that operate in a similar way we are looking to.
* Promotion and Communication:
  + I loved the ideas of the pop-up events and having the 3D printer in the open for the makerspace. I think we could adopt a similar approach for the VR system. We can purchase light stands to put the cameras on and as long as there’s power and space the options are endless for where we could bring it.
  + I’d really like to see the system being brought into classrooms to show the immersive learning aspect. Nursing or science are the first ones that come to mind. These could be beta tests for that model of use.
  + These things are pretty damn cool. A ton of students are interested with VR but have never gotten to experience it so I think that alone will draw people in.
  + Standard promotional materials would work as well. Banners in the library entrance would be awesome. Any suggestions or experiences with what works and doesn’t would be appreciated!
* Other Issues:
  + The only other issue I can think of right now is the security. Making sure that the programs are accessible on a public account but also managed from a different account. Also locking down the equipment to make sure that nothing is stolen.
  + Software accessibility:
    - The PC would be able to function just as the normal lab computers do.
    - LTS software packaging
  + Key checkout:
    - Staffing for setup of the space: TBD based on complexity of setup
  + Drumming up interest:
    - Light stands for portable operation. Possibly in class rooms as demonstrations.
    - Marketing and promotion materials
      * Student created and printed through Printing Services on campus
        + Nicholas Hocking has been contacted and I’ll be meeting with him regarding vision and general info.
    - Contacting departments/professors about the opportunity