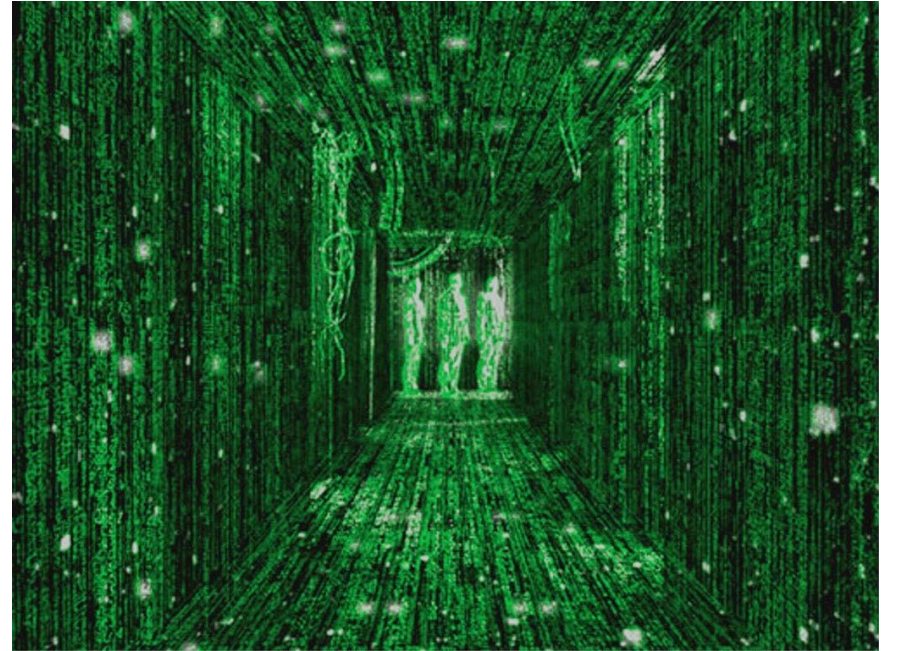# IMMERSIVE TECHNOLOGY VIRTUAL WORLDS

By Jane C. and Kris

According to Wikipedia: "**Immersive technology** refers to technology that blurs the line between the physical world and digital or simulated world, thereby creating a sense of immersion."

"A **virtual world** or **massively multiplayer online world** (MMOW) is a computer-based simulated environment.[1] The term has become largely synonymous with interactive 3D virtual environments, where the users take the form of avatars visible to others.[2] These avatars usually appear textual, two-dimensional, or three-dimensional representations, although other forms, such as live video avatars, are possible, with auditory and touch sensations.[3][4] In general, virtual worlds allow for multiple users."

A post from Stanford.edu states that "modern virtual worlds differ from traditional video games in their objective. Traditional video games generally have some ultimate game objective, for example defeating all the level bosses, saving the kingdom, or just winning the game. Playing in a virtual world, by contrast, is an end in itself. The objective of virtual worlds is to continue participating in the world, interact with other users, and gaining more status or experience within the virtual world."

Though most virtual world simulations are multi-player, games like the Sim series which can be single-player are also considered to be extensions of the virtual world genre.

MANY OF YOU HAVE ALREADY HAD EXPERIENCE IN VIRTUAL WORLDS

Perhaps you have played or known people (students perhaps) who have played on Club Penguin, Poptropica, Minecraft and other such worlds where you can join quests and work towards various achievement levels. Perhaps as an adult you have participated in activities in Second Life or a similar sim based environment. There are many virtual worlds to choose from and they can all be used achieve different ends.

- social interaction
- developing programming skills
- educational goals
- encouraging collaboration
- making learning fun
- others?

DISTINCTION BETWEEN EDUCATIONAL USES AND GAMES

Multiplayer Role Player Games (MRPG) are known for their immersive virtual worlds where players can explore, work, build, interact and carry out 'missions'.

Many of these platforms are just that – games. In each case there is an element of learning – how to move around in the environment, where to go, what sorts of things you need to collect or achieve in order to reach the next level or finish the game. However, the intended purpose of these games is not educational in the sense that they could be used in the classroom.

There are, however, a number of educational games developed for use in the classroom that enable users to learn about real world scenarios in order to deepen their understandings of the world around them.

SOME NOTES TO PONDER

Youngblut's research has found some crucial characteristics for the successful integration of virtual worlds.

- Effective virtual worlds allow the learner to **visualize or enact learning scenarios** through active engagement.

- The key to efficacy of virtual worlds is **interactivity**, rather than immersion. This simply means that students **learn by doing** in this environment.

- Virtual worlds can be applied to create spaces that transcend **safety or distance parameters.**

- **Ease of navigation** through the world seems to make the user experience better and improve learning motivation.

- Teachers best serve as **facilitators** in the discovery process, rather than problem solvers.

- **Desktop Virtual worlds** are the preferred method as they more cost effective and less cumbersome than immersive VR.

- Worlds must build learning through **interaction and construction**, rather than by assimilation as with traditional instruction.

In addition, virtual worlds can be used to effectively integrate media, such as:

- e-Books

- Hyperlinked articles

- Objects to manipulate, such as artifacts

- Interactive calendars or blackboards

- Surveys, where feedback is sent via email

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Cited From: http://www.opencolleges.edu.au/informed/features/top-20-uses-of-virtual-worlds-in-education/#ixzz2qFQVp3jZ

FURTHER

Support from Steinkuehler's Research:

- It suggests that online gaming can actually serve as a vehicle for learning critical thinking skills.

- Her further research is exploring if these models can be used to improve literacy skills in boys, a sub-population known to engage heavily in online gaming and fare poorly in literacy.

- Evidence from this study suggests a large majority of gaming discussions build "social knowledge construction" and collective, rather than collaborative understanding.

The use of collective thinking in virtual worlds, in itself, is interesting. Collective groups tend to consist of a combination of individual thinking, rather than collaboration, or working together as a whole. Perhaps the virtual world can create some separation to allow groups to interact differently. Without letting "ourselves" get in the way so to speak, our own anxieties and emotions can be left aside while learning a new skill. This can be especially helpful in new or high-stress situations.

Researchers want to see if gaming can be applied to scientific problem-solving skills and other disciplines. In 2008, the ***Journal of Virtual World Research*** was established to explore the implications of virtual technology. The field is still relatively new. Further studies are needed to discuss efficacy and pedagogy of virtual worlds. Other organizations are preparing to use virtual training to educate police officers, doctors, and online students.

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Cited From: http://www.opencolleges.edu.au/informed/features/using-virtual-worlds-to-educate/#ixzz2qFRcuzUf

GORD HOLDEN

Gord has been an intermediate teacher for almost twenty years. Before becoming a teacher he was an EA. He struggled with how to help youngsters read. He and another person developed a phonics program to run on computers for his charges. Well, they excelled. However, he was called in to speak to the principal, who promptly told him he had to leave…...to go and get his teaching degree. Thank you to that principal, for now we have an amazing mentor/innovator in our field.

Gord has been working at Heritage Christian Online School in Courtenay since 2011 where he has a fully immersive classroom. Gord also has an "immersive Technology 4 Learning" website where he connects with other like minded innovators of Virtual Worlds. Gord also gives workshops and lectures around the world about Virtual Worlds.

I need to mention that Gord is a very humble person, so I will brag for him. He has numerous awards such as: Top student teacher from SFU, Claude E. Lewis Award in Education, The Maxwell A. Cameron Award. And a little birdy named Kris told me that he has just been nominated for Teacher of the Year! Congratulations Gord.

DISCUSSION

~ any questions?

OUTLINE OF OUR WEEK

We've tried to make the week as straight-forward as possible and would like to emphasize the need to experience a few virtual worlds before forming ideas about their value in education. There are only a few things we are going to ask of you as we move through the week.

You have already (hopefully) had a chance to download the necessary drivers and programs and move around in them as well. Hopefully you've had a chance to 'play' a bit and get a feel for the virtual world. We'd like you to continue to explore throughout the week and then work in another environment to explore goal based learning in the virtual world.

DELIVERABLES

Our expectation this week is that you will spend some time experiencing the virtual worlds and reflecting on what they have to offer. We would like you to spend the bulk of your time doing that, so we've made our 'assigned tasks' quite simple:

1) If you come across any lingo or terms that you were previously unaware of please include them in our class wiki: (and post a copy in our G+ discussion forum so we can share our learning). Please add them in by Wednesday – and don't forget to track your points towards your 500!

2) Complete a blog post based on some or one of the guiding questions we've included on the next slide and post a link to it in our G+ tab (don't worry – these instructions will be there, too). Please complete your post by Wednesday.

3) Respond to one other persons blog post by Thursday.

GUIDING QUESTIONS

Some guiding questions for your blog posts: (choose one to write from, or go forward with your own thoughts about virtual worlds being used in the classroom)

- With kids so wired these days using mobile devices in school and at home, playing games on a variety of consoles and using technology on a regular basis – does using a virtual world in the classroom promote too much screen time? Is it resulting in us developing a generation of kids who are overstimulated and are losing the ability to learn without being entertained in the process?

- How do we approach when students are banned from the computer at home for some reason if we are employing a tool like minecraft in the classroom – does that subvert the parents wishes?

- Both Jane and I felt awkward going into Second Life, feeling a sense of 'we don't belong' here. I felt uncomfortable and hoped that no one would attempt to talk to me – especially when I saw some of the optional areas to visit that were less than savory. Learning the lingo was also difficult and I found myself lost in this virtual world. Does the potential for language or experience barriers exclude the use of a virtual world in the classroom?

- What is the value for education in using virtual worlds in the classroom? Student engagement, obviously, but is there proof of enduring learning or improved understandings?

- What are some best practices we could develop around the use of virtual worlds in the classroom? How could we assess progress and development of skills and for what curricular outcomes?

- What do you think are some of the roadblocks to using VLEs in Education, Why?

- Have you used virtual worlds in your classroom? Explain what went well or what you struggled with and how your students reacted. How was the use of the virtual world accepted by students? Staff? Parents?

- Given the popularity of RPG video games and how many of our students have a certain proficiency at them – is the virtual world the future of learning or simply a disruptive innovation that will end up sticking in the video game world, but not transfer over to education?

- There is huge potential in some virtual worlds for inappropriate use…how could you set your students up for success and ensure that they are being respectful of others when working in the immersive environment (given that you can't monitor their every action)?

FRUSTRATIONS FROM THE WEEK

We thought we'd talk to some frustrations we've had in planning this week. First of note – this week looks nothing like what we had originally planned – but doesn't that often happen!

- Jane getting kicked out – initially we had a number of troubles getting into the environment – thus the session Friday night to ensure we were all on the same page.
- When Kris first tried to get into the classroom it wouldn't let her and froze up. She had to back out of the program and re-enter to get it to work. This happened to Jane later in the night.
- Trying to post slides to the wall was initially tricky, but Jane figured it out! ☺

Basically, we came to the realization that this is not perfect and sometimes can be quite frustrating – but with perseverance it is worth if. And I think that students would probably be able to work their way through a lot of the glitches on their own – I know my students seem to be wired that way!

RESOURCES AND READINGS

We have put a huge number of resources and readings in our Google+ tab in the OLTD community. These are there for your reference only. If you have a deep interest in trying out a virtual world with your own class or find yourself with nothing to do on a Friday night, feel free to peruse the various videos and readings we found about virtual learning environments.

Again, we would like the focus of your week to be exploring the worlds and reflecting on what use they could have in the classroom. At the very least, we'd like you to experience the Unity Christmas game, watch a bit of their Christmas party video, explore in the CyberNetWorld city where we are now and, if possible, explore WolfQuest a bit (though we hear you'll need help from someone of the preteen age group in order to figure it out ☺)

IN THE END......

How far do you think this technology be taken in the classroom?

We are excited to see....

Thanks for meeting with us. We appreciate you spending your Friday night and Saturday morning with us ☺. Have fun this week and let us know about your experiences.