

About Virtual Worlds

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What is a virtual world?

A virtual world is a 3D setting or environment where people interact via “avatars” or 3D electronic representations of themselves. It can include social interactions, simulations, social events and a myriad of other possibilities. Unlike most 3D games, in a virtual world the items in the world are built by the “residents” or people who have avatars there.

Virtual worlds are housed in servers somewhere and accessed via computer through a viewer, or program that gives the user access to the program.

What is it not?

A virtual world is not a game. While some virtual worlds have game-like activities as part of them, it is not a game in and of itself. There are no winning, losing, points or dying.

Also, virtual world is not, by nature, full of inappropriate activities. While they may be available in certain worlds in certain conditions, they are not inherently a part of virtual worlds. It is up to the user to choose which virtual world they visit, and where they go when in a virtual world. All of the VIBE virtual worlds are “G” rated and contain no inappropriate scenes or activities.

How does a Virtual World work?

People wanting to visit a virtual world first make accounts then creates avatars, or electronic representation of themselves. They must then download and install a viewer, or small program allowing them to see the virtual world. After opening the program, or viewer, the new avatars will log in and find themselves in the virtual world. A new avatar will see they are located on a parcel of ground called a region, and in most cases

there will be objects around – buildings, mountains, trees, etc. Using the arrow keys to walk the avatar can begin to explore.

What is the difference between a region and a grid?

The term region refers to a parcel of virtual land measuring 256 x 256 square meters. There are limits to the number of avatars and objects that can be placed on each region, so in some cases two regions can be placed side by side to accommodate large structures or gatherings. A grid generally consists of several regions but can be a single region.

Who can use a Virtual World?

Anyone can use a virtual world provided they have a computer with a relatively decent graphics driver, the viewer software they need (which can be downloaded for free), an internet connection that provides sufficient bandwidth (dial-up does not work), and a little instruction and practice. Dr. Lowe has used virtual worlds with children as young as six years of age and has friends over 80 years of age using them as well.

What is a viewer?

A viewer is a piece of software downloaded to your computer that allows you to have access to the actual program, which is housed in a server somewhere. VIBE worlds are housed in servers at Northern Michigan University in Marquette, Michigan, USA. There are numerous viewers. The commercial virtual world Second Life has their own viewer. This viewer will not work with OpenSim-based virtual worlds. We use either Singularity or Firestorm although there are others.

To help people understand you can think of a viewer as being your television. It could be of many different brands but you still have access to the same channel. The server is the TV station that has the programming. You use your viewer to access the programming.

In some situations there may be a delay in the loading of images, avatar movements, or chat transmission in the virtual environment. This is called “lag” and may be due to your computer’s configuration, your network connection or the server status. In some cases, lag may be triggered by a large number of avatars on the same region. Close other

computer programs that are running at the same time and use a hard-wired (ethernet) connection instead of wireless (wifi) connection in order to improve performance. Check your viewer preference settings to ensure that your graphics settings are at the low/fastest setting.

What is OpenSim?

A few years ago Linden Lab made their software (as it was at that time) open source. A group of people took that software and adapted it to make a platform called OpenSim. Since then Second Life has added other components, OpenSim has added different ones, and both have added some at the same time. As an open source platform, OpenSim relies on the kindness of programmers who are willing to give time for no recompense in order to keep up.

There are numerous virtual worlds based on OpenSim. These are all built by individuals who want something different from Second Life. The benefits are numerous: you can have many more areas (islands or regions) for little or no money, you can control who has access to your grid (world), you have control over the servers, and there is no minimum age limit so the ages you permit is up to you (Second Life has a 16 and up age requirement; 13 and up when approved for certain educational groups). The main drawback is that the technology, at this time, is a little behind that of Second Life. But people (like our Eva Comaroski) are working on improving it. One other point is that you have to have someone who can problem-solve when you need tweaking or updated of the server.

Why use a Virtual World for education?

There are many things you can do with a virtual world that you cannot do with the “real world”. You can travel inside an organ or a cell. You can do interactive activities such as walk through a 3rd world country where your health is at stake, study a coral reef or a mountain forest regardless of where you live, or perform simulations that would be impossible or implausible in “real life”. You can simulate an operation or medical procedures. You can use it for class when you do not want to or cannot meet face-to-face such as Dr. Lowe’s graduate-level courses in science education. Students can do presentations and projects. A virtual world is

a great place for small groups to meet to collaborate. The possibilities are limitless.

What else is a Virtual World good for?

The VIBE group has regular meetings in our virtual world. Virtual worlds are a great way to meet others with similar interests from around the world. Indeed, probably none of us would know any of the others had it not been for virtual worlds. Virtual worlds can be a place for events besides educational activities. Dr. Lowe has social events for children on her Biome4Kids grid. It is possible to have very interactive and fun social events as well.

What concerns should I have?

There are very few concerns with using an OpenSim virtual world. If you have control over your world then there is little likelihood of anyone doing anything you would object to. Just a word of advice. Avatars do NOT take clothes off to put on other clothing. While some clothing are attachments and go on top of the avatar, there should always be base clothing (pants, shirt) that remain on. If you want to change your pants you simply put on new ones – they will automatically replace the old ones.

In some cases when your worlds are available to other worlds via the hypergrid there could be someone visit you who fills your world with strange things (like giant beach balls). We call that “griefing”. It is very rare on OpenSim virtual worlds and easily dealt with. However, if you do not have this type of linking set up then it is not possible for anyone other than your own people to do something like that. Any problems could easily be dealt with in-house.

If you choose to explore other virtual worlds, either Second Life or other Opensim-based worlds, you should talk to someone who has experience and can guide you if you are concerned with what you might encounter.

What is VIBE?

VIBE (Virtual Islands for Better Education) is a collaborative group of educators from various places who use the servers at Northern Michigan

University to run a hyperlinked group of virtual worlds dedicated to education. Originally created for biological education, we have expanded to include a library, an archeology grid, and a grid teaching about the European Union. The current members who are actively involved and operating grids in VIBE are, in alphabetical order (with their most commonly used avatar names) Mary Ann Clark, Werner Clasen, Eva Comaroski, Stephen Gasior, Joseph Graham, Carolyn Lowe, Marion Smelter, and Rachel Umoren.

Can I visit other virtual worlds?

The most famous, commercial virtual world is the global world Second Life. For our purposes we will not be using Second Life. Second Life is operated by a company, Linden Labs, and as such has as the driving force the desire to make money. There are many good things in Second Life but also things you may not want to encounter. We speak of it here so you are aware.

From the VIBE worlds you can teleport to other hyperlinked OpenSim virtual worlds. For the grids on our own servers, we have teleporters, or signs that send you there automatically. It would be up to you whether you allow that or not with your own world. You may also make accounts in most other virtual worlds. Most have webpages where you would make an account. Besides our worlds and Second Life there is a list of available OpenSim virtual worlds on the website

http://opensimulator.org/wiki/Grid_List .

Where do I find material that is already created for use in virtual worlds?

You do not have to start from the very beginning to create a virtual simulation and most educators do not do this. You can find material (often free of charge) for use in setting up a virtual world. These range from single objects (houses, furniture, vehicles) to entire pre-built regions. Some useful websites for free materials are <http://opensim-creations.com/> and <http://zadaroo.com/>

Step-by-Step Tutorial:

<http://prezi.com/r2ufjwmx7ynu/eahcs-getting-started-tutorial/>

For more information or assistance please feel free to contact:

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