

# Immersion in a Virtual World is Good For You!

## Learning to do real time business in a virtual world.

Today more than two billion people have experienced the internet and we are well on the way to seeing the three billionth user connect before 2011 is over. This event will signal that the number of internet users now equals the total number of productive workers in the world. Potentially every worker in the world will have personal access to global communications and the capability to communicate with anyone any time.

Second Life is an early implementation of an “immersive virtual reality” system that can be used as a low cost tool to communicate, educate, and collaborate with other individuals and/or small teams without concern for where they are in the world. The following discussion has been prepared to help those unfamiliar with the emerging virtual world technologies begin to understand the significance of these new communications tools.

**Virtual Reality . . .** is a form of human-computer interaction in which a real or imaginary environment is simulated and users interact with and manipulate that world. Users travel within the simulated world by moving toward where they want to be, and interact with things in that world by grasping and manipulating simulated objects. In the most successful virtual environments, users feel that they are truly present in the simulated world and that their experience in the virtual world matches what they would experience in the environment being simulated. This sensation is referred to as engagement, immersion, or presence, and it is this quality that distinguishes virtual reality from other forms of human-computer interaction.

When a user interacts with a virtual environment, the computer-generated graphics display must be updated with each turn of the head or movement of the hand. The virtual environment must be able to generate and display realistic-looking views of the simulated world quickly enough that the interaction feels responsive and natural.

**An Immersive Environment . . .** totally encompasses an individual’s mind to the point where the individual becomes fully engaged in the activities of the environment to the exclusion of other activities around them. The individual becomes “immersed” in the environment much like what happens when they plunge into a pool of water. The environment becomes

the total focus of the individual until they emerge from that environment.

### **The Future of Work: New 3-D Studio Helps IBM Employees Gain Hard-to-Learn Skills in a Virtual World**

*In IBM's rehearsal studio, employees represented by avatars work with teammates to solve the real-world job problem of closing a big deal by delivering a presentation to a group of executives. IBM internal research shows that compared to traditional classroom environments, on-the-job virtual learning can deliver improved efficiency and speed of learning by 10 times while decreasing the cost by a factor of 10.*

Simulator systems have been used for many years to provide realistic training to pilots and equipment operators. The goal of these systems has been to provide an immersive environment where the user could experience the sensations of flying or

operating the equipment without risking damage to the equipment or injury to themselves and others. The power of computers combined with the high speed communications made possible through the Internet now allow the simulation of an wide range of environments using virtual reality and telepresence technologies.

When the primary tool controlled by a user in the virtual world is an avatar or a three dimension image representing the user, the simulations become real within the mind and engage users unlike any previous technologies. When two or more individuals, through their avatars, encounter each other in an immersive virtual reality system, each will have the sensation of being in the physical presence of the other person. Communications and interactions flow as easily and effectively as those that take place when the individuals are in the same physical space which is being simulated in the system.

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**Telepresence** . . . refers to a user interacting with another live, real place, and is distinct from *virtual presence*, where the user is given the impression of being in a real but simulated environment.

Telepresence and virtual presence rely on similar user-interface equipment, and they share the common feature that the relevant portions of the user's experience at some point in the process will be transmitted in an abstract (usually digital) representation. The main functional difference is the entity on the other end: a real environment in the case of telepresence, vs. a computer simulation in the case of immersive virtual reality.

While telepresence systems provide "real" images of users and the settings from which they participate, the costs of these systems are usually far beyond the reach of individual users and are usually limited to corporate and government applications at the present.

## The Second Life Virtual World . . .

has attracted more than 1 million users with 55,000 to 80,000 individuals active at any single time within this immersive virtual reality world. The simulated environments used by these individuals through their avatars have been developed by the users using the development and simulation software provided by Linden Labs, the developer and operator of Second Life. The Second Life world has grown one simulator computer at a time, all linked together through a network referred to as the "grid." More than 35,000 computers, located in San Francisco and Dallas, support the Second Life grid.

There is a strong economy in Second Life which uses "Linden" dollars and provides a means for users to sell their creations to other users less skilled in the development of objects needed to fully engage in the use of this virtual world.

Interface (client) software can be downloaded at no cost and used to create the user's avatar, a process that can usually be accomplished in less than an hour. Learning to use the avatar will require several hours of

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trial and error similar to the processes of learning to ride a bicycle, fly a plane, or use an interactive video game. Coaching by experienced users can drastically reduce the time needed to learn to use the avatar and the new virtual world.

Developing the skills to build objects and develop simulated environments are similar to the processes followed to develop any skill set as a programmer, animator, carpenter, artist, etc. Those individuals who have developed such skills in real life will find that they will develop their virtual skills more rapidly than those who lack such skills. Many Second Life users experience this virtual world without ever building any objects and rely on others to do this work.

### Increased Productivity

*Corporations, universities, governments, and nonprofits are using the Second Life Grid today to enhance their productivity. Some organizations focus on internal uses, such as training, education, and simulation. Others engage with their customers or students through interviews, recruiting, and product research. Some create simulations of equipment or business processes quickly and inexpensively.*

### Business Users . . .

There are many business users of Second Life and include some of the country's largest corporations and organizations. Many of the early business applications were based on the belief that the "killer" applications in Second Life would come from using this virtual world as a marketing tool.

However, as more business oriented users and academics have found Second Life, it is becoming increasingly more apparent that one of the most powerful uses of this virtual world is its use as a communications platform for small, geographically dispersed teams focused on real life goals and activities.

For these teams and their team leaders, Second Life provides an almost unlimited array of tools to simulate real life environments where team meetings and communications can be carried out. No longer are teams constrained by time and distance when needing to gather to view information and focus their combined minds on issues being addressed by the team.

We believe that technology will advance rapidly to support the use of virtual worlds as a powerful and, in many cases, the primary tool that members of business teams will use to communicate with each other while delivering the results expected of them by their organizations. The technology is here today and the

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cost is low. Waiting to engage in the virtual worlds means deferring the development of skills that will become essential tools for team leaders in the future.

**How do I Start? . . .** When asked this question, I am reminded of those who asked the same question when the microcomputer ushered in the electronic spreadsheet in the late 1970's. As was true then and is even more true today, you must saddle up the horse, take a seat, grasp the reins and experience the ride. In other words, no amount of reading or listening to others share their experiences will prepare an individual for the sensations, feelings, and mental motions of controlling an avatar in a virtual world.

You have to get a computer that supports the client software, create an avatar and begin learning to walk, talk and fly (yes, avatars can fly) in the simulation world. Like learning to swim, you have to hold your breath, jump in and begin splashing around.

Can you do it without help? Sure, but it will take you longer than if you ask for the help of a seasoned user . . . a lot longer! And without a supportive coach, many will be tempted to abandon the process before the rich rewards begin to flow.

The first challenge will be to make sure that the computer you want to use is compatible with the client software that becomes your interface with the virtual world. The video card in the unit will need to support the video demands of the interactive world you will be entering.

A high speed internet access connection is also required. Residential cable TV, DSL, and fiber optic connections all are adequate as are most WIFI and wireless broad band connections.

Downloading the client software and installing it is the best test of whether your current setup will support Second Life. Some tweaking of the software settings may be necessary to get optimal use of the application.

The next step will be to create your avatar . . . a sometimes confusing process that can be easily navigated with the help of an experienced user. And then there are the really important questions . . . what should my avatar look like and what clothes should it wear? My advice is to make it look somewhat like the real

you. Those who know you in real life might be a bit shocked to see you show up for a meeting looking like an animal or of a different gender! Again, an experienced helper can significantly reduce your time in the dressing room and bring the norms of interaction with others in the virtual world to you at this early stage of your virtual experience. Once your avatar has been created, you will find yourself on one of the

“orientation” islands where you will learn to walk, fly, communicate and interact with objects in Second Life. A sometimes humbling

experience as you struggle to remember what keys on your keyboard do what and what the standard visual cues in Second Life mean. This is where the real experience of learning sets in. Again an orientation coach can help dramatically reduce the time you spend here.

It will take time, from a couple of hours to much more depending on your prior experiences and already acquired skills. After a few days of using the new virtual world you will quickly forget the frustrations and challenges of those first few hours “in-world” . . .

## Improved Communication

*The Second Life Grid provides multiple channels of communication, including images, audio, video, voice, public and private text, with both groups and individuals. The platform supports multiple languages and real-time text chat translators are available. University educators use the Second Life Grid as a platform of choice for a range of distance learning options from entire virtual campuses, to classes, office hours, meetings and presentations.*

## Effective Collaboration

*The Second Life Grid enables participants in different environments and locations to collaborate in real time in a 3D space. For example, you can walk through a new piece of equipment, engage in a scripted training simulation, or cooperatively design a new workspace.*

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but during which you will have created many “funny” stories to share with others who have gone before you or will follow in your footsteps.

## Now What Do I Do?

The virtual worlds are best used in business as a communications tool. And we believe team communications, leadership skills development, business simulations and professional education are the “killer” applications for business. You will note that all are accomplished with others you work with. Therefore, you must gather together with your team members and business associates under the guidance of team leaders, business coaches, and personal mentors to begin to experience the rich rewards of your Second Life experiences.

Before jumping into Second Life, seek the advice and counsel of a seasoned business consultant experienced in virtual world applications and reduce to writing your personal and your organization’s expectations for using this new and powerful communications platform. Then put together the action plan for making it happen.

### Reduced Business Costs

*Save expensive travel and business costs through the use of the Second Life Grid. Your organization can establish a private or public centralized 3D meeting space where participants can communicate, collaborate, and present using voice and text in real-time. Meet with global partners at your own branded virtual headquarters. Walk product teams through prototypes to find design problems before committing to real-world construction. Participants from around the world can connect together daily for a fraction the cost of video conferencing solutions or airline tickets.*

Engaging a consultant to help design the learning process, to support your learning efforts and to be your accountability officer will provide assurances that your efforts will yield results far beyond your greatest expectations. You will know you are truly a virtual person living your Second Life when you become, in turn, the consultant for others as they begin

their experience of transitioning from the old way of doing things to the geographically unlimited future of our virtual business lives.

This treatise ends by taking you back to the beginning.

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## About Teamwork Dynamics

Teamwork Dynamics, Inc. is a consulting firm located in the Dallas area of North Texas. Its mission is to work with senior executives to help them develop management team leaders they need to deliver significant and sustainable results. The firm was founded by Thomas Samson, a seasoned executive with extensive experience in developing team leaders in a wide range of industries.

Mr. Samson has been deeply involved in the development of team-oriented processes and tools in Second Life since the beginning of 2007. He has developed a substantial base of knowledge, tools, experiences and in-world developers that are the basis for services such as the following:

- 1) helping senior management understand what Second Life is and what it can bring to real life business practices and results,
- 2) identifying possible Second Life applications for client businesses,
- 3) advising senior management and stakeholders regarding investments in Second Life applications,
- 4) helping clients evaluate how Second Life simulations can be used for training and to solve business problems,
- 5) developing pilot applications to support and drive teamwork through Second Life, and
- 6) staffing and managing major Second Life development projects.

Mr. Samson’s background and experience may be viewed at [www.visualcv.com/tfsamson](http://www.visualcv.com/tfsamson) and he may be contacted at [tfsamson@teamworkdynamics.com](mailto:tfsamson@teamworkdynamics.com) or at 972-365-4838. The virtual offices of Teamwork Dynamics are located in Second Life on the Jones Beach sim and can be located using the search feature of Second Life.