**VIRTUAL REALITY AND AUGMENTED REALITY**

Technology is now evolving at such a rapid pace that annual predictions of trends can seem out-of-date before they even go live as a published blog post or article. As technology evolves, it enables even faster change and progress, causing an acceleration of the rate of change, until eventually it will become exponential.

Technology-based careers don’t change at the same speed, but they do evolve, and the savvy IT professional recognizes that his or her role will not stay the same. And an IT worker of the 21st century will constantly be learning (out of necessity if not desire).

**VIRTUAL REALITY AND AUGMENTED REALITY:**

**Virtual Reality** (VR) is an artificial, computer-generated simulation or recreation of a real life environment or situation. It immerses the user by making them feel like they are experiencing the simulated reality firsthand, primarily by stimulating their vision and hearing.

VR is typically achieved by wearing a headset like Facebook’s Oculus equipped with the technology, and is used prominently in two different ways:

* To create and enhance an imaginary reality for gaming, entertainment, and play (Such as video and computer games, or 3D movies, head mounted display).
* To enhance training for real life environments by creating a simulation of reality where people can practice beforehand (Such as flight simulators for pilots).
* Virtual reality is possible through a coding language known as VRML (Virtual Reality Modeling Language) which can be used to create a series of images, and specify what types of interactions are possible for them.

**Augmented reality** (AR) is a technology that layers computer-generated enhancements atop an existing reality in order to make it more meaningful through the ability to interact with it. AR is developed into apps and used on mobile devices to blend digital components into the real world in such a way that they enhance one another, but can also be told apart easily.

AR technology is quickly coming into the mainstream. It is used to display score overlays on telecasted sports games and pop out 3D emails, photos or text messages on mobile devices. Leaders of the tech industry are also using AR to do amazing and revolutionary things with holograms and motion activated commands.

Virtual reality and augmented reality are great examples of experiences and interactions fueled by the desire to become immersed in a simulated land for entertainment and play, or to add a new dimension of interaction between digital devices and the real world. Alone or blended together, they are undoubtedly opening up worlds-both real and virtual alike.

**Augmented Reality vs. Virtual Reality**

Augmented reality and virtual reality are inverse reflections of one in another with what each technology seeks to accomplish and deliver for the user. Virtual reality offers a digital recreation of a real life setting, while augmented reality delivers virtual elements as an overlay to the real world.

Virtual Reality (VR) immerses the user in an environment while Augment Reality (AR) enhances their environment. Although VR has primarily been used for gaming thus far, it has also been used for training, as with VirtualShip, a simulation software used to train U.S. Navy, Army and Coast Guard ship captains. The popular Pokemon Go is an example of AR.

Virtual Reality is usually delivered to the user through a head-mounted, or hand-held controller. This equipment connects people to the virtual reality, and allows them to control and navigate their actions in an environment meant to simulate the real world.

Augmented reality is being used more and more in mobile devices such as laptops, smart phones, and tablets to change how the real world and digital images, graphics intersect and interact.

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