Chapter II

The Future Virtual Reality Melting Pot

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Abstract

Virtual reality replaces or modifies human sensory input as do other technologies but with different methods or goals. Currently and even more so in the future, these technologies will work off the successes of each, creating a virtual reality melting pot. In this chapter, we look at some of these technologies and their current effect on virtual reality. From there, we identify human technological drives and use this to highlight future technologies that will meld into the melting pot. Lastly, we look at how some of these changes will impact human society and human everyday life.

Introduction

Many fields today are working towards a virtual, information-accessible world. Distance loses meaning, communication and information flows freely, and the sensory inputs are the manipulated mediums that make it so. Virtual reality (VR)
is at the forefront of this, having the goal of replacing or modifying a range of sensory input of the user. The result of this goal is the study of how users behave and react when their environment changes in non-realistic ways. Other fields seek to modify the user’s world through different means such as augmenting the user’s senses or blending technology into the background of a human’s life. However, the technology of these younger fields has not advanced as far as VR to make them practical for many studies involving users due to equipment and toolkit fragility. VR however has explored beyond merely equipment advances to create methodology and experiment with real users and their reaction to real VR experiences. Other fields in the future will then be able to work off VR research and literature, blending their advances with the inroads made by VR into a larger body of knowledge, a VR melting pot of technology.

An apology is in order before we continue with the rest of this chapter. It becomes difficult to say where the bounds are of certain research fields. For instance, many fields seek the same goal of bettering the lives of humans through technology; they just take on different methods or emphasis. In the exploration of enabling VR technologies, it is likely that the statements of this chapter will annoy researchers from other fields as they claim their technology will be the dominant research that led to the change in our lives. The reality is that the future is built of many parts, interacting in a complex, seemingly chaotic manner. Judging importance and contribution will be left to the historians. Creating the importance and contribution is the charge for those with the creativity to see the connections and blur research lines, mixing the best of the various fields into something of utility for the average human.

But first, a vision of the future of VR through a scenario of a human’s life:

As Brad exits his last required cycle of REM sleep, his blinds silently open to let in the rays of sunlight from the morning sun. He had no need to set an alarm as his room monitored his sleeping patterns and his virtual agent managed any interruptions (if an emergency arose, the agent could wake him). Still lying in bed, Brad asks his room what he missed through the night. The ceiling switches from a star-filled night sky to show the night’s activity. Gesturing with his hands he moves through his messages...nothing outstanding. His news avatar clipped a few news stories, which he will look at once he gets to the office; Dave, Brad’s friend, is having a dinner party in a few weeks and it was added to Brad’s schedule; Brad’s brother left a joke he had just heard about a man and an elephant; and, a few bits and pieces of work information from the global offices on their accomplishments through the night. Brad heads toward the shower to finish going over his messages as music turns on in the background. He always likes Mozart in
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