Chapter 11

Adapting Technical Theatre Principles and Practices to Immersive Computing and Mixed Reality Environments

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To envision the future of technology, we would do well to first look to the past. The past provides a vocabulary of possibilities which can be rearranged and supplemented with fresh ideas and technology to craft not just new opportunities, but a new language of experience. If the future consists of virtual, augmented or mixed reality events in pervasive, ambient or ubiquitous computing spaces, much inspiration and practical guidance may be gained through the examination of principles and practices associated with contemporary and traditional live performance.

Though my professional background is in web programming, development, and design, I’ve spent the last two years apprenticing to the stage, with an eye towards technologies which will eventually revolutionize live events. Working in technical theatre as an assistant stage manager, carpenter, electrician, stagehand and bit part actor, I’ve learned firsthand traditional stagecraft techniques and lore (practical wisdom transmitted on the job in the form of story-telling) going back – in their essence – countless generations. Though the milieu of the theatre is flexible enough to accommodate a tremendous variety of special events and performances, within the West and within the United States in particular, a consistent methodology and process has developed whereby a show concept is taken from a written script through to a finalized performance. The person who typifies and oversees this process within the business of the theatre, perhaps most completely, is the stage manager.

If a staged dramatic event, such as a play, were compared to a computer program, the playwright would be the programmer. The playwright determines the basic parameters of the event: what happens when and where (setting), how it happens (dialogue and dramatic action), and who it happens to (the cast of characters, or