

SURVIVING THE VIRTUAL:
CRAFTING A NEW FORM OF THEATER FOR THE DIGITAL AGE

by

Vanessa Anne Ford

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SIGNED: Vanessa Anne Ford

APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

Dr. Jerry Dickey
Associate Professor of Theatre Arts

04-10-2006
Date

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ABSTRACT

This thesis proposes a new genre of theater that combines participatory and interactive narratives with virtual reality technologies and traditional theatrical elements to create a form that is capable of responding to the growing desire for interactive entertainment mediums. A series of participatory narrative events, including traditional theater productions, interactive narrative/drama and role playing games, are analyzed for their potentialities and limitations. These elements are then used to respond to scholarly writings concerning the problems of participatory narrative forms. From this analysis conclusions are drawn about the necessary elements needed to create this new genre of theater, termed interactive virtual theater, or IVT. The elements are then synthesized into a hypothetical picture of what the IVT of the future might look like.

CHAPTER ONE

WHAT IS IVT AND WHY DO WE NEED IT?

Ours is a society that has made rapid advancements in technology over the last thirty years, and in many ways our world has become one that is dependent on interaction with technology. This interaction can be found when we access our money, buy our groceries, in almost all facets of our communications, and most significantly for those in the theatrical profession, in our entertainment mediums. There is growing evidence that people, especially those who have grown up surrounded by this technologically-based interaction, both like and desire this interaction in their entertainments. One only has to look at the popularity of videogames and Massively Multiplayer Online Role Playing Games to find evidence of this desire. The videogame industry now grosses more than the movie industry (Yi) and videogame design has made rapid strides to become as immersive and interactive as possible. An example of these qualities can be found in one of the most popular games in the gaming industry, *EverQuest*. *EverQuest* is a Massively Multiplayer Online Role Playing Game, or MMORPG, in which the player chooses an avatar who “exists” in an extremely detailed and elaborate virtual world.¹ Players move their avatars about this world, choosing where they will go, with whom they will interact and how. They explore, trade, fight, even marry and divorce. In short, players construct their own narrative. How can the theater, with its limited form of interactivity, hope to compete?

Theater practitioners have been striving over the latter half of the twentieth century to answer this question. They have attempted to do away with theatrical conventions like the fourth wall and the silently spectating audience member and have instead asked the audience to assist in the creation of the piece. These attempts at audience inclusion are significant, as they point to a realization on the part of theater creators of the importance of answering the audience's growing need for interactivity, an element they once possessed but was taken from them in the early nineteenth century. However, these productions have been limited in their ability to create the first-person immersive and interactive form that audience members experience when involved in a gaming experience like *EverQuest*.²

Conversely, videogame and virtual reality creators have realized that theatrical qualities can be very valuable in creating engaging first-person experiences. Individuals like Andrew Glassner, one of the prominent theorists and designers of story structure, interactive fiction and computer graphics, and Janet Murray, a leading interactive narrative creator and theorist, both advocate using theatrical techniques in the creation of works in their respective fields. Most excitingly, there are ways to combine this first-person virtual reality experience with interactive theatrical productions to create fascinating new kinds of experiences. This idea has been briefly explored, but these types of works center on the use of artificially intelligent agents, rather than human actors, to function as the source for interaction. It is the goal of this thesis to outline a new type of theater, termed interactive virtual theater (IVT), in which interactivity, scenarists, directors, virtual reality technologies, audience members and human actors all

occupy a necessary function. This new form of theater has the ability to allow theater arts a chance to expand, as well as to allow the theatrical world a place among interactive entertainment. It also allows for an interactive form that does not exclude the human actor or human discourse, two necessary elements required to keep interactive forms from becoming solely entertainment mediums.

The first chapter of this thesis will provide definitions and identify significant scholarly writings on the uses and forms of virtual reality art forms. Chapter Two will use scholarly writings, first-person accounts, performance recordings and other sources to examine key productions and experiments, each falling with varying degrees of clarity into one or more of the aforementioned terms. The productions chosen are representative or seminal works of their genre and each has a sufficient amount of scholarly critique and archival sources to be analyzed in detail. However, none of these productions meets every requirement of the definition of interactive virtual theater, so specific interest will be paid to the successes and failures of each production. Chapter Three will then provide an analysis of what these successes and failures might mean for a truly interactive virtual theater, as well as address the inherent and perceived problems of crafting participatory virtual theater, most specifically those problems outlined by Andrew Glassner, Marie-Laure Ryan, Janet Murray and other scholarly writers. Chapter Four will provide a description of what IVT of the future might look like and discuss existing and emerging technologies that make IVT possible.

While the traditional actor's role will change, the term actor will still be used when referring to an individual whose occupation it is to portray a character. It will also

be necessary to redefine the individuals who move out of the arena of the traditional spectators and into an active participation in the narrative, as their roles will be significantly altered. For the purposes of this thesis these individuals will be termed interactors, a term borrowed from the *Oz* project, a research group at Carnegie Mellon University's Computer Science Department, who in turn borrowed it from Brenda Laurel, the first to suggest similarities between computer interfaces and the theater. It will also be necessary to define exactly what attributes constitute this type of virtual theater, as there are varying usages for the term, none of which adequately encompass the type of theater proposed in this thesis.

The interactor's agency is one of the primary goals of interactive virtual theater, so it is important to examine the ways in which the interactor achieves this agency, and consequently, how his role shifts from spectator to narrative creator. The interactor will choose, with assistance from a scenarist, what thematic elements the narrative will explore, as well as what character he will occupy and what other characters will be included. He will also be able to choose the arc of the storyline, to decide what actions the characters might take and what the outcomes of these actions might be. The ideal beginning interactor will have no formalized training in any system of acting, allowing him to maintain a pure and unique point of view, one untainted by an attempt to adhere to the "proper rules" associated with many acting styles. It is also a requirement that the interactor's identity can be masked or concealed, as a veil of anonymity will be essential in allowing the interactor's choices to be as uninhibited as possible.

The actor's responsibilities will shift from conveying characters written by a playwright to conveying characters created by an interactor and scenarist working in collaboration. There will be little to no prewritten dialogue, but the arc of the character's actions, her wants and goals will be predetermined by the interactor (with assistance from the scenarist and director). The actor will be responsible for ensuring narrative integrity throughout the piece, allowing the interactors' choices to come to fruition in a timely and appropriate manner. Much like a *commedia dell'arte* actor, this actor will recognize when it is appropriate to expand on a scene as well as when it is time to steer one scene into the next. It is the primary responsibility of the actor to maintain the integrity of the interactor's narrative structure as well as to ensure that the structure is presented in a manner that is pleasing to the viewing audience. In order to fit the definition of trained actor, this actor has at least two years formal training in an acting method. While there are a myriad of actor training methods, the majority of the productions analyzed in this thesis will feature actors trained in the Stanislavski System or Stanislavski-based systems like the Meisner Method, so the primary focus of any discussion concerning actor training will be on the Stanislavski System, although it is probable that the IVT actor will require training in a form other than, or in addition to, realistic acting methods.

The interactive virtual theater of this thesis must necessarily contain seven elements. First, the medium must be virtual, that is, utilizing virtual reality technologies to create the primary performance site. Second, to be truly theatrical, the performance should be crafted for the viewing pleasure of an audience. Third, this medium also requires active participation from select members of the viewing audience. A primary

goal of this medium should be to offer the interactor(s) the highest degree of agency. In other words, the interactor should be able to choose the content of the narrative and to participate actively in its construction and performance. Fourth, a scenarist must be responsible for assisting the interactor in the creation of a pleasing arc of action. The fifth element is the director, who will oversee all aspects of the production to ensure that the collaborative environment remains cooperative and cohesive. The sixth element is the presence of trained actors is a necessary part of this equation, as their presence facilitates human interaction and connections and also assists in the guiding of the narrative's tone and flow. The final element is that something must be enacted, most likely a narrative, though it may not follow a linear structure or traditional plot line. To clarify further the nature of the interactive virtual theater of this thesis, and to help clear up the confusion surrounding other definitions of these types of performances in general, it is helpful to define what IVT is not.³ It is not traditional interactive theater, interactive narrative or interactive storytelling, interactive drama, role-playing games, or digital theater.

Traditional interactive theater, like Tony and Tina's Wedding, necessarily involves actors and audience members working together to create a theatrical experience. It may or may not contain an element of digital technology, such as voting machines, computer-generated images, television screens, projected images, etcetera. However, its primary performance site utilizes the immediately tangible physical world and not in a world created through the means of virtual reality technologies. The levels of interactivity vary greatly and are most often constructed, guided and performed by

persons belonging to the theatrical company. The audience members usually work as one unit, rather than as individuals, and their participation in the theatrical piece is limited in its ability to construct the form, shape or tone of the narrative. Actors retain varying degrees of power to guide and shape the narrative, but the performance of that narrative is generally their primary responsibility and any performance done by audience members is peripheral.⁴

The next genre that may be confused with the interactive virtual theater of this thesis is the genre of interactive role-playing games, like *EverQuest*. The event is virtual, in that the primary place of action occurs in a virtual space. And while the participants can be quite theatrical, we would not classify the average group of individuals huddled around a *Dungeons and Dragons* board a theatrical performance. So, too, may we not classify individuals huddled around their computer screens and engaging in digitally mediated role-playing games as theatrical performances. While activities like these can be very theatrical, they are not pieces of theatrical performances for a very specific reason. These activities require the attainment of points, wealth or other material goods in order to create an empire, vanquish an enemy or some other such goal-oriented task. Once these tasks have been accomplished the player will win the game. Although the player may construct narrative structure in the form of choosing the next move from a menu of programmed choices, the player is not concerned with crafting a narrative that is pleasing to any observer. Rather, the goal of winning the game is the primary driving force. An audience may be present in the form of observers, but even these observers are primarily interested in the skill of the player to play and defeat the game.

Interactive narrative, also known as interactive storytelling, is the genre most easily confused with interactive virtual theater, possibly because of its very theatrical façade, especially in relation to the “holodeck” experience after which this type of activity often models itself.⁵ Interactive narrative occurs in a virtual space and is populated by interactors who shape the content and structure of the narrative with differing degrees of agency. While there are characters in the story, aside from the interactor they are peopled not by human actors, but by artificially intelligent agents controlled by programming of varying sophistication. The event is “performed” only for the pleasure of the interactor, and there is no traditional audience viewing the event. To complicate further the definition of interactive storytelling/narrative, the term interactive drama has also been used to describe these types of events. The term has been used by Joseph Bates from Carnegie Mellon to describe the *Oz* project’s experiments (Carroll 1), which were designed to assist in the creation of artificial agents that would act as characters, and more recently by researchers at Charles Sturt University in Bathurst, Australia, to describe To the Spice Islands, an educational process event that employed human actors. However, each had varying degrees of interactor agency as well as differing uses of virtual “performance” sites. More on the problems and successes of the *Oz* group’s experiments will be discussed in detail in Chapter Two.

The interactive virtual theatre of this thesis is also not digital theatre, a prime example of which is the University of Kansas production of Elmer Rice’s The Adding Machine. The term digital theatre is a relatively new one, and a definitive explanation of

the term can only be found as of now on Wikipedia.org. The contributors of Wikipedia have defined digital theatre as:

A 'live' performance placing at least some performers in the same shared physical space with an audience. The performance must use digital technology as an essential part of the primary artistic event. The performance contains only limited levels of interactivity, in that its content is shaped primarily by the artist(s) for an audience. The performance's content should contain either spoken language or text which might constitute a narrative or story, differentiating it from other events which are distinctly dance, art, or music.

This definition comes close to the definition of virtual theater, as there is an audience present to view the event as a performance. These productions can contain an element of virtual reality technologies, and the performance can occur in a virtual environment, though given the definition set forth by the Wikipedia.org contributors, that does not seem likely. The critical difference between the two is that of the second criteria of limited interactivity. In digital theatre performances it is the responsibility of the actor to determine the structure, content and flow of the narrative action. In interactive virtual theater, the actor functions as a guide in the narrative, and it is the interactor who determines the structure and content of the narrative. In this way the interactor is assured the highest degree of interactivity possible.

While scholarly discussion of the role of human actors in interactive virtual reality mediums is scarce, some does exist, and there is also much to be learned from key

sources exploring the nature, capabilities and aesthetics of other virtual reality forms. Thinking of theatre and computers as symbiotic elements first surfaced with Brenda Laurel's Computers as Theatre. Laurel was the first to suggest that there are similarities between the computer interface and the theatrical interface. Using Aristotle's Poetics, Laurel proposed that computer programmers begin to think of the theatrical possibilities that computers possess. While her book is intended for use by computer programmers, it is a useful place to begin, especially for individuals interested in creating traditional theater pieces in virtual spaces. This usefulness is due to Laurel's theatrical approach, but perhaps the most intriguing content of Laurel's entire book is the following:

I have sketched out several possible permutations of mediated improv, not only as a means for learning about interactive drama but also as a way of viewing the process of real-time 'action sculpture.' A near-term project is for a public installation using essentially the same format as the Carnegie Mellon [Oz] experiment [. . .] interested viewers can watch improves via video with the director's audio superimposed [. . .] we can allow [. . .] other viewers to look into the action from the point of view of any character. A more elaborate version boosts the technological gain again by giving the actors and interactor virtual bodies in virtual environments [. . .] all participants experience the action via first-person virtual reality interface. (192)

This idea, while not exactly the IVT of this thesis, is an extremely fascinating idea with much promise, but even Laurel, a former actress and champion for the under-represented

viewpoint in virtual reality mediums, states that the long-term goal of these kinds of experiments are “to serve as a ‘frontend’ to the Oz system” where “characters may be enacted, not by people, but by [...] software.” Her goal is not to create a new theatrical voice, but to co-opt the theatrical to create interactive narrative. However, her ideas can be very useful in helping to identify interactive virtual theater’s necessary elements and initial steps.

Also primary among these sources is Janet Murray’s Hamlet on the Holodeck: The Future of Narrative in Cyberspace, one of the most influential books regarding interactive narrative creation. In this work, Murray explores precursors to the virtual reality medium, establishes aesthetic goals for the medium, and discusses the nature of the interactor as procedural author and navigator of virtual reality narrative forms. Murray’s exploration of the actor’s involvement in the future of virtual theater is brief, consisting of a single paragraph that merely describes a fiction writer’s idea of how actors may occupy the virtual theatrical space. But that fictional idea, created by Neal Stephenson in The Diamond Age, offers a very tantalizing look at what virtuality might look like. Actors and interactors, linked to a virtual system via implanted sensors in their bodies, interact in theatrical pieces for entertainment purposes (Murray 121). However, these pieces are not performed for the pleasure of an interactor and a viewing audience, but solely for the pleasure of the interactor. Murray’s book also endorses the creation of this type of theatrical narrative experience, but instead of using live actors, Murray largely advocates the creation of artificial agents, which she suggests should be modeled after trained human actors, as she believes these agents will offer more expansive and

interesting interactions. However, her book is widely regarded as a seminal work for interactive virtual reality creators, and many of her theories on interactive narrative can be applied to IVT.

The ideas presented by Laurel and Murray are elaborated on by Bryan Loyall in his response to Janet Murray's essay entitled "From Game-Story to Cyberdrama," found in First Person: New Media as Story, Performance and Game, edited by Noah Wardrip-Fruin and Pat Harrigan. The book is a collection of essays that inform the differences and similarities of interactors in role-playing games, interactive fictions and other virtual art forms. Again, while the contributing authors of the text are all widely regarded virtual reality creators, little to no discussion of the use of human actors in virtual mediums exists. The sole exception can be found in Loyall's essay, in which he briefly mentions the exciting possibility of an interactive form that involves a company of actors and a director who guide an audience member through an interactive performance. It should be noted here that Loyall was a contributor to the *Oz* project, whose work will be discussed in detail in Chapter Two. Unfortunately, the majority of the work done by Loyall and his colleagues seeks to replace the human actor with what they see as the more financially solvent system of artificially intelligent "actors." However, the form they employ is akin to traditional theater, as the narrative tends to be linear in structure, and the characters, while artificial, are ideally as sophisticated and dimensional as possible. Loyall and his colleagues describe the process as one in which the "viewers can enter a simulated world with rich interactive characters, be substantially free to continuously do whatever they

want, and still experience the powerful dramatic story that the author intended” (Loyall 2).

Another work that supports the creation of artificial agents over the use of human actors is Interactive Storytelling: Techniques for 21st Century Fiction by Andrew Glassner. In this work, Glassner outlines specific problems inherent in audience participation and makes some strong, but brief, arguments for the sanctity of the actor’s work. Perhaps due to his very strong opinions regarding the acting process he does not explore a form in which actors guide an interactive narrative process but instead focuses on gaming and interactive story forms. However, his explorations of the problems, goals, complexities and structures of these forms can be used to inform the creation of an actor-facilitated virtual medium, as well as to pinpoint and anticipate problems that may be encountered. Glassner devotes an entire section to the dissection of problems faced by home drama, where individuals gather together to read aloud and act out scripts in the comfort of private homes. Since his is the only work to address in detail the problems inherent with traditional audience members assuming the role of actor, it will be of special concern and will be addressed in depth in Chapters Two and Three.

While not highly relevant to this discussion, Gabriella Giannachi’s Virtual Theatres: An Introduction should be mentioned briefly, as the title of the book and its subject matter may seem to be relevant. Giannachi’s book is largely a detailed history of varying virtual mediums, their specific productions and the implications of these works for the future of virtual reality. In this work, Giannachi attempts to categorize the myriad types of virtual reality art forms. Giannachi states, “There is not one virtual theatre, but

many.” She goes on to clarify this definition. “This is not only because of the variety of virtual art forms that can claim a certain degree of theatricality, but because the medium of virtuality itself acts as a theater, a viewing point of the real” (151). Giannachi makes distinctions between these types of performances, categorizing them into such genres as hypertextualities and cyborg theatres, and even within these categories exist other sub-genres such as digital poetry, biotelematic art, holopoetry, holographic art and transgenetic art. However, absent from her very thorough exploration of these types of virtual theaters is the kind of work that combines interactors and actors. This absence is significant, as it is absolutely necessary to make a distinction between Giannachi’s virtual theatre (that is, any combination of theatrical qualities and virtual technologies) and the interactive virtual theater of this thesis, a medium that is as of yet in its infancy.

It is the hope that this thesis will inspire theater creators to begin to approach the theatrical production with interactivity as the main goal, so that the theatrical will not be co-opted by other, more interactive forms, but will remain a vital and inspiring art form. In order to better understand the necessary elements of IVT, the following chapter will examine key interactive experiences in an effort to discover the potentialities and limitations of each production.

Notes

¹ An avatar is an onscreen, computer-generated character that represents the player.

² By first-person form I mean that the audience member experiences the work from the first-person point-of-view of a major character.

³ This comparison does not imply that interactive virtual theater is somehow superior to these forms, rather it is simply to help establish very clear definitions of terminologies.

⁴ Here I use the word performance in the traditional sense of the word, where one performs theatrical actions of a character for the viewing pleasure of an audience.

⁵ The term holodeck refers to the Holodeck of the Star Trek© television series and movies, in which crew members enter virtual reality worlds to experience their favorite novels, etc, as their favorite characters.

CHAPTER TWO

IDENTIFYING SUCCESSFUL INTERACTIONS AND INHERENT PROBLEMS

If one wishes to create a new form of artistic expression, it is beneficial to examine forms with similar structures, elements and themes to better understand what must be done to ensure the success of the new form, in this case the form of IVT. The purpose of this chapter is to examine key productions of other interactive forms and to identify the particular strengths and shortcomings of each. As these works are relatively recent there is a scarcity of critical sources pertaining to some of these productions. Therefore the critical assessment offered here is largely my own and is based on writings and personal accounts of persons involved directly with the analyzed productions, none of which have I had any direct contact with. These findings will have significance in the discussion of essential elements needed in IVT in Chapter Three. The productions analyzed will include the traditional interactive theatrical piece Tony n' Tina's Wedding, the MMORPG *EverQuest*, University of Kansas's virtual reality enhanced production of The Adding Machine, and the interactive drama experiments Bus Station and Tea For Two conducted by the *Oz* project at Carnegie Mellon University.

Tony n' Tina's Wedding is a traditional interactive theater production that has experienced vast commercial success. According to the show's website, www.tonylovestina.com, the show is now playing in Chicago, New York, and Las Vegas, as well as many other major metropolitan areas. The show first premiered on February

14, 1988 and has since played in over 100 cities in its nearly twenty-year run. Originally produced by Joseph and Daniel Corcoran in New York, the “marriage ceremony” of the original inception of the show occurred in a real church and the second act, the reception, in an actual restaurant (Schmitt 147). The premise of the show is that the audience members are all guests at the wedding of Tony and Tina, a couple unsure about the prospect of marriage, with a supporting cast of meddlesome and bumbling friends and relatives.

The success of the show seems, in large part, to be due to the way the show uses audience members as participants in the narrative. Tony n’ Tina’s Wedding, and others like it, use the social context of large group gatherings, in this case a wedding, to allow the audience members to experience an event that is “only slightly more staged than ‘real’ situations” (Winslade 200). By placing the audience members in a situation in which they understand what is expected of them through ritual, like joining in ceremonial dances, etc., the audience members can use their previous real life experience to construct conversations and participate in a myriad of familiar ways. Furthermore, the individual audience member is not singled out and asked to “perform” for the rest of the audience. Rather, “the performances are set where the audience really is and audiences are situated to the performance as their characters really would be” (Schmitt 147). In other words, all of the audience members are “on stage” all the time. Their performances are always occurring along with every other participant’s performance. This situating of the audience creates an aura of safe participation in which the audience member can choose in what manner and how much they wish to participate. One audience member may

prefer to sit back and spectate, opting out of dances or conversations with the paid actors, and other audience members may throw themselves into the performance, conversing with every actor they can, dancing every participatory dance and so on. This ability to choose one's level of participation, coupled with the safety of knowing that one's performance will not be singled out, seems to be extremely desirable to participatory audiences.

Another aspect of Tony n' Tina's Wedding that seems to promote the feeling of a safe environment is its tone of comedy and playfulness. In her article "Casting the Audience," Natalie Crohn Schmitt recalls attending a 1970 production of The Performance Group's Commune, in which the audience members were asked to represent the soon-to-be-massacred villagers of a small Vietnamese town. The play, participatory and political in nature, seems to have set a tone of graveness, one in which, according to Schmitt, participants felt "threatened" (149). She attributes the success of Tony n' Tina's Wedding and similar participatory shows to their feeling of "silliness," adding that "it is hard to imagine what might constitute an audience member's mistake" (150). J. Lawton Winslade goes even further in his essay "The (Oc)cult of Personality: Initiating the Audience into The Edwardian Mysteries," characterizing these types of performances as "often quite banal and slapstick-y" (200). Yet, no matter how one views the tone of the show, there is no question that audiences appreciate the chance to play that these types of shows offer.

Tony n' Tina's Wedding is also successful in its ability to engage the audience members' five primary senses. Sight and sound are the senses that are normally engaged

in almost any theatrical production, interactive or not, but in the case of Tony n' Tina's Wedding, the senses that are not normally engaged are. The act of dancing in such ritualistic dances as the Limbo, the Chicken Dance and others engages the body and the somatic sense of touch. As the performances are attempting to replicate a marriage ceremony and reception, food and drink are offered in the form of a cash bar and buffet-style dinner, which involves the olfactory and gustatory senses in the performance. This complete immersion utilizing all of the senses seems to be more engrossing than a participatory event that engages only a few of the primary senses.

The biggest problem faced by productions of Tony n' Tina's Wedding appears to be that audience members feel left out of the action that does not happen in their vicinity and they sometimes feel as if they cannot experience all that the show has to offer.

Consider this excerpt from a review by Mike Weatherford in the Las Vegas Review Journal:

Some scenes do unfold for all to see: The ceremony itself [. . .] highlights and lowlifes of the reception, such as a shirtless groomsman doing the 'YMCA.' But the rest of it goes on in bits and pieces around the paying customers [. . .] Our table [. . .] got the full dose of the groom's dad [. . .] who [. . .] gets progressively more obnoxious, until he's waving around a vodka bottle with his shirt unbuttoned. But missing most everything on the other side of the room meant not being in on the decline and fall of two other booze casualties [. . .] They [. . .] resorted to using headset

microphones for some characters at the risk of the reality they're trying to create, and still a lot of things go unheard.

When one considers the price of a ticket for one performance, paying to see the show more than once can become quite exorbitant, and many audience members may not be able to see the show more than once in order to feel as though they have seen everything.⁶ This finding suggests that audiences in participatory environments that accommodate large groups such as this one risk being alienated from the performance when they feel as though they are not getting the full experience.

Another problem encountered by interactive performances such as Tony n' Tina's Wedding is the presence of belligerent interactors, who are often in an agitated state due to too much alcohol consumption. Of course, as Jamie Collins, a business party planner, notes in Schmitt's article, alcohol consumption increases participation by lowering inhibitions (150). But lowering inhibitions too far can be problematic, as alcohol consumption also causes a reduction in judgment, caution, reason, memory and self-control, as well as impairing motor function, balance and coordination. Even if alcohol consumption is not a factor, some guests may be over-eager, easily angered or rude. The possibility of an uncooperative participant is perhaps more pressing for creators of interactive environments than it is for creators of forms that are spectator-based, so it behooves IVT creators to understand ways of dealing with these types of participants. Fortunately, *EverQuest* and similar MMORPGs have found an eloquent way to deal with these participants, which will be explored in a later section.

EverQuest is one of the most popular MMORPGs, and from it much can be learned about the creation of successful interactive forms. *EverQuest* was introduced to the public in March of 1999 and by June of that same year the game had over 100,000 subscribers, an average of about 30,000 of whom could be found playing the game nightly (Krantz 63). The game is multi-player, meaning that many players can play the game simultaneously and allows the player to create a character that will inhabit the elaborately detailed, fantastical, medieval-like virtual world of the game. The narrative structure

[. . .] combines a metastory, primarily in the form of a predesigned story world and various plots within it, with a story system that allows players to evolve their own narratives within the game's framework. The central play mechanic is [. . .] social storytelling [. . .] the story emerges as a direct result of social interaction. (Pearce 148-149)

This social interaction is the main attraction for most players of the game and seems to be the game's biggest success. "If you try to play it alone, it quickly becomes evident that the party worth visiting is the online environment [...] interaction among people over a network is an important element" (Meadows 218). Moreover, according to Nina LeNoir in her essay "The Audience in Cyberspace: Audience Performer Interactivity in Online Performances," playing the game allows people to experience emotion in a manner similar to that of theater. Players have become so engaged by the social networking that some have even been inspired to have their character "marry" the character of another player (126 -127). The success of MMORPGs social interactions that trigger emotional

response and involvement on a deep level suggests that other forms of interactive entertainment may benefit from the presence of multiple persons who form a community.

The presence of community is also beneficial in establishing a means of controlling players who may act in an undesirable or antisocial manner. According to Celia Pearce, players who engage in unsavory behaviors can be “penalized by game operators, but more often, they are penalized socially” (149). As one player, who goes by the name “tuffic,” states in his review of the game, “If you don’t like people then you can’t play EQ [*EverQuest*]” (Gamespot.com). Players who cross boundaries of acceptable behavior are reprimanded, and those who continue to act in undesirable manners are ignored or ostracized. As it is virtually impossible to succeed in the game without the assistance of one’s guild partners, it behooves players to act cooperatively. By establishing social controls through game operators and enforcement of social codes through other players, *EverQuest* has found a way to ensure cooperation between players and enforce standards of behavior.

The metastory structure of the game can also be counted among the game’s successes, as it offers players a structure for the event, in this case a fantastical medieval world and some basic narrative events. However, the structure is designed in such a way as to facilitate the ability of players to “improvise narratives in real time” (Pearce 148). More and more, creators of interactive forms are realizing the need for structure when crafting an entertaining experience. In her article “Interactive Drama: Narrativity in a Highly Interactive Environment,” Marie-Laure Ryan notes worlds with no narrative structure are “a tremendous waste of time if users cannot find cooperative and

imaginative partners” (3). She also notes that while narrative events with a provided script or structure may limit the interactor’s freedom of choice, it also “maximizes the chances of a pleasurable performance” (3). *EverQuest* seems to have found a unique and satisfying balance between a framework to “control” the action and the ability of the gamer to choose what, where and when to experience certain events. Part of the success of this balance has been that the players, while experiencing their own narratives, are also subject to following the metastory structure, which includes the performance of specific tasks or attainment of specific goals. However, while this task structure is highly successful in keeping the gamer involved with the metastory, it can also be one of the game’s biggest flaws.

The main problems encountered by players of *EverQuest* are temporal and have effects in the real world as well as the virtual. In the virtual world, players must accomplish certain mundane tasks before the narrative can continue, a concept Jesper Juul refers to as “dead time” (Juul 138). These tasks include “walking, waiting for monsters to respawn, or even fishing or chopping wood” (138). These tasks hold no real entertainment value and can be highly frustrating, as the time consumed accomplishing these tasks in the virtual world is simultaneously wasted in the real world. This frustration can be compounded for many players, especially since to be involved in the game on anything more than a superficial level, a gamer must commit “at least 10 hours a week to maintain ongoing engagement” (Pearce 149). Additionally, the slow pace of the game may be due to its community-based structure. Harvey Smith, Project Director and Lead Designer for *Deus Ex 2*, a first-person shooter video game, contends that the slow

pace of the game is due in large part to its multi-player structure, where focus must be on many participants' desires rather than on an individual player, and that multi-player structures almost always ensure that environments created by MMORPGs will be extremely simplistic (Meadows 193). While Smith is a creator of single-player games and may have a bias toward the format he works in, these temporal and sophistication issues are potential problems that should be noted by anyone interested in creating interactive virtual forms.

While the University of Kansas's production of Elmer Rice's The Adding Machine is not interactive in the sense of first-person occupation, it is worthy of inclusion in this discussion as it can be helpful for creators of IVT to explore the problems and successes encountered through the production's use of virtual reality technologies. The Adding Machine was produced in April of 1995 and was one of the first productions to combine a traditional theatrical script and live actors with virtual reality technologies.⁷ According to the show's scenographer and virtual reality creator, Mark Reaney, the show ran twice as long as the usual college production run and nearly all of the performances sold out (Mahoney 68). The show occurred on the stage of the Crafton-Preyer Theatre, which was significantly altered to accommodate the special needs of a virtual reality production. The house capacity was curtailed from 1800 to 190 and black draperies were hung to surround the audience on both sides. At the rear of the stage was a trip-tych projection screen that was angled in on the sides to enclose the performance space. Live actors occupied the playing space, and live actors were also video-taped and projected in real time on the set's projection screens to interact with the actors on the stage.

The overwhelming success of The Adding Machine appears to be its use of virtual reality technologies to enhance the pre-existing script. While the script is an expressionistic piece that contains many fantastical locations and occurrences, in his lecture entitled “Art in Real-Time: Theatre and Virtual Reality” Reaney stresses that the use of virtual reality technologies was not done for the sake of spectacle, but rather “to interface the VR system, live actors, and theatre audiences in such a way as to reveal the emotional context [. . .] using dynamic, and ephemeral virtual scenery.” Reaney goes on to provide what he feels is one of the best representations of this use of VR to enhance the script, the second scene of Act One:

At the beginning of the scene [. . .] Zero and Daisy are working at the office, Daisy reading numbers while [sic] Zero adds them. Behind them is a representation of the office and what appears to be the actors’ shadows on the screen. As Zero and Daisy grow weary of the monotonous task and begin to daydream, the actors leave their positions and move. [sic] about the stage while speaking their dream monologues. However, their shadows remain in their original positions. The effect was used to visually demonstrate that the characters have not actually left their work and the movement of the actors is only psychological.

Reaney also adds that the ability to capture the psychological perspective of the characters is “vital to expressionistic work” and that the more traditional means of scenic construction often “can not keep pace with the imagination of playwrights” (Reaney, “Virtual” 43). The addition and utilization of virtual reality and other digital technologies

has the ability to offer an entirely new perspective on the theatrical world, and not just that of a more complete feeling of immersion. It also has the ability, as KU's The Adding Machine so eloquently demonstrates, of highlighting and underscoring the inner workings of character and motivations in new and exciting ways, ways that could be of great use to creators of IVT.

The University of Kansas's production of The Adding Machine also heralded what Reaney referred to as a new form of stagecraft. The production's use of virtual reality technologies required that a computer operator control the simulations in real time. Consider the following example taken from Diana Philip Mahoney's 1995 article "Live Theater Gets A Virtual Boost". "The actors [. . .] do a waltz. The computer person lifts the scenery off the ground, over flowers, through and above clouds, then into space. 'When the computer person gets tired of watching this, he brings the scene back down to the flowers, tipping the camera perspective over a field of poppies (77).'" While much can be made of this new form of VR stagecraft, it might also be argued that this is not just a new form of stagecraft wherein the designs are preplanned and the only element of improvisation comes from minimal changes in timing and route, but that it can also allow for a new interpretive voice on the stage, in the form of improvisational scenery and thematic images. As Felicia Hardison Londré points out, there is an improvisational element in running The Adding Machine's virtual scenery (66). Timing can be altered at the whim of the operator, as can the route taken. Reaney states that it is difficult to steer through a virtual world in the same way, and director Ron Willis adds that the operators "know where they're going, but [. . .] take a different route each time" (66). This

improvisational quality is one of the reasons that virtual reality technologies mesh so well with theatrical conventions, but it is even more exciting to imagine a production in which the VR operator could choose images at whim, improvise settings, etc., in order to be another performance voice in the improvisational form of IVT.

Another success of The Adding Machine that Reaney notes is its ability to immerse a large number of people in a virtual reality environment, stating that “the physical structure of the actor/audience/virtual world interface was successful, if not perfect” (Reaney, “Virtual” 43). As virtual reality is all about creating a feeling of immersion, it is most often done for a single person or small groups of people. But the design team for The Adding Machine was concerned with finding ways to use VR technologies to enhance a large audience’s enjoyment and perceptions. They found that this immersion could occur with a large group as long as certain precautions were taken, including blocking the audience’s view of the sides of the auditorium and taking specific technological steps to be sure that the 3-D effects would not be lost in certain scenes. When attempting to create an immersive environment for a large group, it will be necessary for creators of IVT to have on hand individuals who understand the technological demands that large group immersion can create.

The technology used in The Adding Machine also provides an example of how to successfully make VR technology financially viable. For the production, Reaney assembles what he terms “home-brew or garage” virtual reality systems (qtd. in Londré). Reaney utilized

[a] new prototype [. . .] of Virtus WalkThrough Pro software [running] in stereo on Apple PowerMac 7100 and 8100 computers [. . .] [he] create[d] a projection system with a pair of MX-1 video mixers connected to n-View LCD pads atop Dukane overhead projectors [. . .] [and filmed] offstage actors with a video camera and chroma-key[ed] the signal via the MX-1 mixers into the virtual reality. (Londré 68)

Reaney states that he believed the price of the system was well within budget for most theaters, and the production occurred in 1995. When one takes into account the growing complexities and capabilities of computers, their software and external hardware and the declining prices of said technology, it is easy to see that systems can be crafted that are both sophisticated and affordable.

For creators of IVT, perhaps the most significant success of The Adding Machine is the way in which actors were utilized. The creators of the show were eager to combine virtual reality immersion with what they termed engagement, that immersion that happens through more traditional methods of story-telling. Reaney states that the team felt the best way to achieve this blend of visual immersion with mental engagement was to adhere as much as possible to the theatrical conventions of traditional theater, which included the use of live actors. While there was one character who was a computer-generated image, the role was a minimal one that consisted of four lines and was added “as somewhat of an afterthought . . . to enhance the eeriness of the [graveyard] scene” (Mahoney 78). The rest of the characters were played by live performers, some of whom appeared on the stage in person, and some of whom appeared on stage via streaming

video. The video-taped actors were located offstage, in front of a green-screen and interacted with actors onstage in real time. A prime example of this technique can be found in Scene Two:

Zero's boss detains him at the end of the work day [. . .] Zero (Brian Paulette) stands alone on the small platform stage while his boss (John Garretson), in the virtual setting on the trip-tych screen behind the platforms, looms twice as tall as Zero. In actuality [. . .] Garretson [. . .] is performing on front of a camera in a mini-television studio in the theater's wings; his image is electronically inserted into the virtual world seen by the begoggled audience. (Londré 67)

By allowing actors' performances to be streamed into the action on stage, the team was able to allow Garretson the ability to communicate in a way that he would not be able to had he been on the stage with Paulette. The giant looming face of the boss communicates not only the intention of the boss's cruelty but also that of the mental perception that the character Zero has of the boss at that moment. Because the medium of IVT necessarily includes virtual reality technologies such as the ones found in KU's production of The Adding Machine, creators of IVT can make use of similar techniques when creating IVT performances.

While virtual technologies can offer new means of expression for scenic designers, VR computer operators and actors, it should be noted here that the use of these technologies might cause issues, especially for actors and audience members who are not used to them. This technological acclimation seems to have been the issue that was most

prominent in The Adding Machine. Some of the actors, including Steve Willingham, who played the Fixer, seem to have found that acting with VR technologies requires more precision than traditional stage acting.⁹ “It’s a lot more technical, almost like film-acting on stage. You have to always be aware” (qtd. in Brighton). Megan Parr, who played Zero’s secretary, also added that due to the spectacle and novelty of the constantly changing virtual scenery it was especially important to be sure that the actor’s performances were not upstaged by the virtual scenery (qtd. in Brighton).¹⁰ Another technological issue the team ran into is the fact that some audience members experienced difficulty viewing the virtual reality 3-D, especially if they had pre-existing vision problems, and others were “so akin [sensitive] to it they might get motion sick” (Mahoney 77). Creators of IVT will do well to remember that actors as well as audiences will need a period of adjustment as new technologies are added into the theatrical world.

The live interactive drama experiments of the *Oz* project were conducted at Carnegie Mellon University’s School of Computer Science in conjunction with the College of Fine Arts Drama Department in the spring of 1990 (Laurel 189). The experiment was driven by a desire to study interactions between human actors, interactors and a director in order to better understand the functions of each when programming intelligent agents and story guiding programs, which the group termed drama managers. While this experiment was designed in order to answer questions about how to translate the experience into a computer-based one, its similarity to IVT makes it worth exploring. Those similarities include the use of human actors, the presence (although minimized) of an audience and the first-person interaction of an interactor.

The first experiment the group conducted, Bus Station, occurred on the stage of Carnegie Mellon University's Studio Theatre. In this experiment three actors played three characters and an interactor entered the scene as him/herself. An unseen director gave directions, such as what to do and when and how to respond to the interactor, via headsets. The scenery consisted of "a table, a few tall wooden boxes, and several chairs in a 'V' arrangement" (5). During this first run the interactor was a male graduate student from the computer science department, and the actors were completely unfamiliar with the plot/narrative events. The only foreknowledge the actors possessed was a basic outline of the character they were to embody during the run. In the second run of the experiment several significant changes were made. The interactor was now a female theater development assistant (8), and a change was made to the layout of the set, wherein the V shape was changed to an L shape in order to "open up the space and allow more room for the actors and interactors to interact" (6).

According to Margaret Kelso and other members of the *Oz* project, the group was extremely successful in crafting a narrative experience that the interactors found compelling and immersive, even when accompanied by the lack of scenic immersion created by the very simple stage arrangement. The group also points out other unrealistic conditions, such as "a fake gun, actors wearing headphones, [and] a giant microphone" (10). However, these unrealistic elements do not seem to have diminished the interactors' sense of the immediacy of the event, as the group noted "both interactors found the experience realistic" (9). The group also found that both were willing and able to suspend disbelief in order to participate in the narrative (10). Furthermore, both

interactors were eager to experience another interactive drama (9). These findings suggest that interaction in dramatic forms, what the group calls “dramatic presence,” is engaging enough to cause interactors to seek out further experiences, and desirable enough to suspend disbelief at a very deep level.

According to the group, one of the other successes of the experiment was the use of a director as an omnipresent guide of the action. During each run of the experiment, the director, in this case an unnamed member of the Drama Department, stood in the wings, observing and giving direction to the actors via headsets (6). The director’s responsibility was to steer the action in the direction indicated by a previously written plot graph, in which certain actions were necessary to reach the end of the narrative. The director also helped ensure that events happened in a fifteen minute period (Ryan 326) and that actors remained aware of the traits of the characters they were playing, as was the case when one actor forgot that his character was supposed to be blind (Kelso 7). The group found that the presence of an omniscient individual helped keep the story line progressing smoothly and in a timely manner, especially since the actors and interactors were not aware of the overall plot arc, or of the events that the scenarist, Margaret Kelso, had dictated as necessary in the plot graph.

While the experiment was successful in the areas mentioned, it is perhaps more useful to a creator of IVT to understand the problems and failures of the experiment. The first significant problem when approaching this experiment from a theatrical point of view is the fact that the experiment was predominantly created by computer science people in order to better understand and design computer agents for interactive drama.

While persons trained in theatrical arts were involved in a secondary capacity, their involvement in creating the structure and dramatic conventions of the piece appears to have been minimal. The piece employs many dramatic conventions and seeks to mimic the theater as a basis for creation of artificial systems, so perhaps there may have been greater success if theater creators had been involved in a more meaningful way in the creation of the initial concept.

One of the areas that may have been better addressed with input from theater creators is the role of the actors. One of the major downfalls of the experiment was that the actors were not given ample time to study and understand the characters they portrayed. For example, the character of Tom was supposed to be a blind man, yet in the first run the actor had to be repeatedly reminded by the director that the character was blind. In the second run, the actor who played Tom was asked what his name was and the actor was forced to break character in order to consult the brief bio sheet he had been given only moments before the first run of the experiment began (Kelso 7-8).

It may also be hypothesized that the unfamiliarity with the plot graph may have contributed to the actors' inability to forward the narrative or to time the events out in the allotted fifteen minutes. Certainly actors are capable of achieving both goals, as is evidenced by the skill of *commedia dell'arte* actors to improvise following a rough plot structure. However, the actors were not given the opportunity to familiarize themselves with the plot graph, nor were they instructed to attempt to make the performance last a given amount of time. Because the *Oz* project was primarily concerned with studying what characteristics a drama manager program might need, they overlooked the

possibility of allowing the characters to be somehow responsible for a larger portion of the event.

Another aspect the actors may have noted prior to the experiment was what type of effect the presence of an audience would have on their performance, however minimalized the audience's presence might have been. Kelso noted that the small studio space was chosen "because there was seating for the observers below the stage and out of sight of the participants" (5), as the *Oz* project wanted to keep the actors and interactors from performing for the audience. However, the presence of the audience could still be heard, as is evidenced in the transcript from the second run in which Kelso notes that "the observers laughed" when the actor playing Tom consulted his bio sheet (8). An actor or director present at the planning stage of this experiment may have been able to suggest that the observers be located behind a glass partition, or inside a board op or observation booth, rather than out of sight but within hearing distance of the actors and interactors.

The presence of observers is also problematic in that they are invited to watch and comment on the experiment, but the experiment is not geared in any way toward their spectatorship. Kelso states, "an interactive drama is created solely for the benefit of the interactor" (9). This arrangement is fine if one is not going to draw conclusions about the nature of audience in interactive drama, but the *Oz* project team members make assertions about the validity of an interactive art form that is accompanied by an audience. They noted that the observers "often became bored and lost track of what was going on" (11) and also that the observers complained when characters acted in a manner inconsistent with their personality or motivations (10). From these observations they conclude that

their original hypothesis, that interactive drama can be done solely for the interactor's pleasure, is correct.

Another difficulty the group encountered was the narrative structure itself. Bus Station took place in a "bus station," with an actor playing a ticket counter clerk, another actor playing a blind man who wished to purchase a ticket, a third actor playing a "punk" who was to threaten the others with a knife, and the interactor, whose sole instruction was to buy a bus ticket. The group allowed for one climatic moment with three variations on the action leading up to the climax but in retrospect realized that they had missed many possibilities for links in the action that would have allowed for more variation (5). The climatic moment was itself problematic and occurs when the clerk offers the interactor a gun. Because the interactors were to play themselves, they reacted as they would in real life, causing the choices they made in the narrative to become moral decisions rather than an extension of a fictional event. As Janet Murray notes, "When we enter the enchanted place as ourselves we risk draining it of its delicious otherness" (101). If the interactors had portrayed a character, the illusion would have been given more validity, and the interactors would have felt freer to experience the narrative as the other they portrayed.

There is another flaw in the experiment caused by the manner in which the interactors were expected to occupy the space. As a result of their immediate presence on the stage their gender was evident, and there is evidence that suggests the actors may have changed their approach to the scene based on the sex of the interactor. For instance, the actor playing Tom must fill out some paperwork, but as he is "blind" he must ask the interactor for help. In the first run of the experiment, Tom asks the male interactor for

assistance “politely” (7). However, in the second scene he “angrily” asks the female interactor for assistance and as she helps him he becomes “angry and asks [. . .] if all these questions are necessary” (8). In the discussion following the experiments the director noted that the “attitudes of the actors may have influenced the choices of the interactors” (9). If the actors’ attitudes are based solely on character choices, then creators of IVT have nothing to worry about. However, if the actors’ choices are made due to preconceived notions regarding the interactor then creators of IVT will need to address this issue.

The second experiment conducted by the *Oz* project, Tea for Two, allowed one and a half hours for the event, rather than fifteen minutes, and the plot structure was much more elaborate. This time the interactor was asked to portray a police detective and solve a murder case. However, the group faced a dilemma when the event came to the end of its allotted time, but the end of the narrative structure had not yet been reached:

As a consequence [. . .] the director had to make a choice: have the story continue at its natural pace but end prematurely due to time limits, to complete the story rapidly and risk disturbing the experience. He chose the latter and the experience suffered [. . .] interactors were unsatisfied by a forced ending.

The interactors also felt manipulated by the presence of a narrator character. Since the world of the narrative was too complex to recreate on stage, there was no “real physical space” (12). It was the job of the narrator to describe the physical world and the events that were occurring. The group also used the narrator to provide hints that would ensure

that the events laid forth in the plot graph would occur. However, the interactors felt the narrator was “simply telling them what to do” (12). In later runs of the experiment, the group found that hints could be given by other characters that were much more capable of creating a feeling of satisfaction in the interactors. From the successful interaction of the later experiments the group concluded that characters could be successful agents in assisting in the unfolding of the narrative.

In the examination of these productions and experiments it has become clear that interactive theatrical forms, dramatic narratives and virtual reality productions each have areas in which certain aspects are successful. Tony n’ Tina’s Wedding was particularly successful in establishing safe group participation through ritual and social context, while *EverQuest* accomplishes the same goal through the use of social control of unwanted behaviors. The Adding Machine’s use of virtual reality technologies not only enhanced the script but allowed actors to express themselves in new ways, while simultaneously immersing a large number of people in the 3-D experience. The *Oz* project’s major success was to provide a structure in which the use of a director and a scenarist are key factors, but their major downfall lay in the misuse of their interactors and audience members. The aim of Chapter Three is to identify and answer the problems of participatory narratives posed by the leading scholars in the field, including Marie-Laure Ryan, Philip Auslander, and Andrew Glassner.

Notes

⁶ The official website of Tony n' Tina's Wedding, www.tonylovestina.com, quotes the following ticket prices for the month of February, 2006: \$59-\$73 in Chicago, \$87 in New York City, \$67-\$75 in Philadelphia and \$83.95-\$142.50 in Las Vegas.

⁷ In these respects it loosely falls into the wikipedia.org contributors' definition of digital theater.

⁸ According to Kristin Brighton's review in Kansas State University's student publication The Collegian, Steve Willingham was a sophomore at KU studying film and theater when the production occurred.

⁹ Brighton's review also indicates that Megan Parr was a junior majoring in theatre at the time of the production.

CHAPTER THREE

ADDRESSING THE PROBLEMS

As previously stated, there are seven necessary elements that IVT must possess: human actors, interactors, a scenarist, a director, an audience, a performance location that incorporates virtual reality technologies and action. The first six elements are uniquely responsible for addressing, solving or negating some of the specific problems encountered by the productions analyzed in Chapter Two, as well as for utilizing some of those productions' successful attributes, while the element of action is necessary in order to define the form as theatrical, as a hallmark of the theater is that something be enacted. The first six also possess the ability to address more general problems that have been noted by creators of interactive narrative and other mediatized forms, specifically those problems noted by Andrew Glassner, Marie-Laure Ryan and Philip Auslander. The following chapter will provide the major problems identified by Glassner, Ryan and Auslander and discuss how the first six proposed elements of IVT work to address this plethora of real and supposed problems.

In the seminal work Interactive Storytelling: Techniques for 21st Century Fiction, writer-director, computer graphics researcher and interactive narrative guru Andrew Glassner outlines specific problems faced by participatory forms of narratives. Glassner outlines these problems, as he believes they have not been sufficiently explored, and states that some of them may never be solved adequately. He does state, however, that only by asking these questions can they be addressed and possibly solved. The five

problems he outlines are as follows: “It’s never worked before [. . .] Adding computers doesn’t help a thing [. . .] Authors want control [. . .] Interaction doesn’t improve stories [. . .] Acting is hard” (219-223). Glassner is interested in bringing about a relevant type of participatory structure through the combining of narrative and gaming elements, and in the rest of his book he addresses these problems from a story-meets-game viewpoint. However, many of the points he makes about the problems faced by participatory narrative structures do not retain their efficacy when they are applied to IVT, so this chapter will address these problems from the interactive virtually theatrical standpoint.

Consider Glassner’s first argument that states that participatory fiction has never worked before. Glassner calls to mind traveling theatrical troupes, Renaissance fairs and other improvisational/participatory theatrical performances. He even includes Tony ‘n Tina’s Wedding as an example of the participatory form, stating that

[t]here have been a number of experimental theater pieces that involve the audience to different degrees. None of these are mainstream forms [. . .] Surely if there was any mainstream potential to this idea of participatory fiction, by now at least one of these many forms would have resonated with the general public, and then a more sophisticated form would have grown from it. (219-220)

What Glassner fails to mention is that passivity in the audience is a very recent theatrical convention, one that, according to Susan Kattwinkel in her introduction of Audience Participation: Essays on Inclusion in Performance, “really only came into being in the nineteenth century” (ix), and is mostly a Western idea. Consider, for example, one of the

most prolific and successful playwrights in history, William Shakespeare. Shakespeare's theater was extremely commercially successful and allowed spectators to "invade" the performance space, either by talking to or at the actors on stage or becoming part of the spectacle themselves by sitting on and slightly above the playing space. When we consider the stage contract of Restoration Theater, which possessed a high degree of audience participation, or that Shakespeare used as his model the pageant wagon theater of Medieval England, wherein the audience and performer space was blurred even further, there is significant evidence to suggest that participatory structures can and do work. Additionally, Glassner's argument fails to retain validity even in an examination of modern Western society.

Glassner definition of a successful narrative structure seems to be based largely on mainstream or popular appeal and commercial success. In the theatrical world, the most commercial and mainstream productions are Broadway musicals. If we examine the parallels of the Broadway and participatory theater, then we must reconsider the "failure" of Tony 'n Tina's Wedding to become mainstream. As was stated in Chapter One, Tony 'n Tina's Wedding is currently playing in many major metropolitan areas and has played in over 100 cities in its eighteen-year run. The longest running Broadway musical, The Phantom of the Opera, has also been playing for eighteen years. There is evidence of the commercial success of Tony n' Tina's Wedding to be found in ticket prices as well. According to a search done on www.telecharge.com, the ticket purchasing link provided by The Phantom of the Opera's official website, the average orchestra seat ticket price for the Broadway production of The Phantom of the Opera is approximately

\$100.00. The average ticket price for Tony 'n Tina's Wedding in New York City is approximately \$71.00 and in Las Vegas can be as high as \$142.00. When compared to the longest running mainstream theatrical production in the United States, a participatory form should not, according to Glassner, reflect any type of commercial success. Yet Tony 'n Tina's Wedding has run for just as long and ticket prices of the two shows are separated by only twenty to thirty dollars. Couple these facts with the knowledge that Tony 'n Tina's Wedding also has long-running productions in many other major cities and it is evident that this participatory form is not only commercially viable and popular, it is almost as successful as the most commercially viable and popular production of the most mainstream form of theater today.

In his second argument, Glassner states that “adding computers doesn’t help a thing” (220) when it comes to establishing a participatory story structure. However, *EverQuest* uses computers to alleviate two of Glassner’s fundamental problems of participatory home drama, specifically Glassner’s point that organizing and gathering individuals for a participatory narrative experience is difficult and that the lack of sets and costumes deeply curtails the ability of the experience to be immersive, fun and imaginative (295). Yet *EverQuest* uses computers to establish an environment wherein users can enter and leave the narrative world whenever it is convenient for them, eliminating the need to organize. If specific organization is needed for a particular group of individuals to band together on a quest, the computer makes it much easier to facilitate their organization and scheduling. Additionally, *EverQuest* provides an easily accessible virtual world wherein avatars, sets, and props already exist.

Glassner continues his argument for the inability of computers to assist in participatory narrative structures by asserting that computers simply are not sophisticated enough to simulate human interaction. This argument is very true when considering worlds that are encompassed on a personal computer or laptop screen, but the argument loses its efficacy when VR technologies are introduced into the equation. Glassner's main points about the inability of computers to assist in interactive narrative are as follows:

[c]omputers cannot come anywhere close to providing the kind of spontaneity, depth, and responsiveness we get from human beings [. . .] everything is less real [. . .] the computer's presentation of the world experience is so shallow and constrained that it constantly dead ends into its own limitations [. . .] since interactive stories haven't worked very well [. . .] in the real world, there's no reason to expect that they would work any better in the drastically constrained and limited simulations that are presented to us through any technology that exists today or seems likely in the near future. (220-221)

While the former may be true for creators of RPG's and other desktop forms of narrative structures, it appears that Glassner does not seem to be thinking of virtual reality technologies, like CAVEs, when he makes these statements, as the entire goal of VR is to create worlds that seem to be extremely realistic.¹¹ Brenda Laurel advocates using virtual reality technologies when she talks about the future of her own work, stating that VR technology "boosts the technological gain" and allows for more elaborate and

immersive virtual worlds (192). Additionally, when VR applications are combined with the “depth and human responsiveness we get from human beings” it may be that technologies do assist in the creation of interactive narrative. In IVT, this assistance may be utilized for the benefit of all participants, from actor to interactor to audience.

Kevin Brooks notes in his article “There is Nothing Virtual About Immersion: Narrative Immersion for VR and Other Interfaces” that it is not necessary to utilize complex visuals or scenery when a participant is already “deeply engaged in the experience because of the nature of the narrative events” (3). Brooks goes on to say that any technological elements should only serve to enhance the mental immersion that participants already feel. For example, it is highly likely that the immersion experienced by the interactors of the *Oz* project’s Bus Station would have been greatly enhanced by being located in a virtual bus station. While the computer interface was not necessary to arouse feelings of immersion or to facilitate participation, it would most likely help the participants, whether they are interactors, actors or audience members, to suspend their disbelief. In fact, the presence of a virtual bus station could have been an essential missing element in regards to the audience’s enjoyment of the piece, as visual spectacle can often assist greatly in one’s ability to place oneself in the action. As Janet Murray notes, spectacle “is used to [. . .] move us to another order of perceptions, and to fix us in the moment” (112). But what is most fascinating when considering the ways in which VR technologies might assist in the creation of participatory structures are the benefits these technologies might provide an interactor. This idea will be examined in detail in the discussion of Glassner’s fifth assertion, that acting is hard.

Glassner's third point, that authors wish to remain in control of their creations, is true, but only if one is considering a form in which authors expect to have control over their work. In the case of theater this person is the playwright. However, the *Oz* project found an eloquent way of dealing with this issue by employing a scenarist, rather than a playwright, to craft the narrative structure.¹² Because the scenarist crafts only the structure of the events and characters, there is still room for interpretation, improvisation and unscripted interactions. As Glassner points out, "making choices is exactly what we pay creators to do" (221). The art form of scenary, like that used in the *Oz* project's experiments, offers writers a different kind of story crafting, one in which the scenarist still has the ability to create a world and interesting characters, but one that also requires the scenarist to imagine all possibilities and scenarios, and to make choices to construct a narrative structure that is pleasing and engaging based on the myriad of possibilities. These are not easy tasks and will require very skilled artists. Scenary is not a new discipline, as is evidenced by commedia dell'arte's brilliant use of talented scenarists like Flaminio Scala, but it is a concept that has not received much attention since the idea of the *gesamtkunstwerk* was brought about by Wagner and other nineteenth-century artists. Glassner's assertion that authors want control over the work of art implies that scenarists have no control and that scenary itself is not a discipline that attracts many authors. While the latter may be true in today's American society, it may simply be that the art form that will allow scenarists work to flourish simply does not exist. However, the implementation of IVT could change that.

Glassner's fourth point is that interaction does not improve stories. But again, his argument is flawed. He asks the reader to imagine that "we've found an ideal way to give an audience member a chance to participate in the story" (221). But his example of this ideal participation is that the audience member of an interactive movie selects from a menu of options that decide the entirety of the next action, including plot, dialogue, even lighting and sound effects. That a participatory form would require all of this information from its interactor is ludicrous, and that an interactor would find this the ideal form of interaction is even more absurd. Using this less-than-ideal scenario, Glassner goes on to make the assertion that there is no real benefit from audience participation. He claims that the audience member will always make the most banal of choices, and that they can only choose a character's actions if they know the character "inside and out" (223). But the success of audience member participation in Tony 'n Tina's Wedding and the interactors of the *Oz* project suggest that stories can and do benefit from the presence of interactivity. They simply cannot be the kinds of tightly structured narratives that Glassner thinks of as mainstream, which appear to be traditional scripted forms of theater and movies.

The fifth point Glassner makes is that acting is hard. He expands on this statement, saying that "performance is stressful [. . .] creating a character is hard [. . .] good acting is hard [. . .] good acting can hurt [. . .] bad acting is embarrassing [. . .] acting is revealing" (295-300). Yet there are ways to circumvent or minimize the stresses of performance on an interactor, and once the issue of stressful performance is negated, others of these issues, specifically the issue of revelatory acting, may actually be

beneficial and desirable. This brings us back to the ways in which technologies might assist in the creation of a participatory narrative, as VR applications make it possible to negate the very issues Glassner raises.

When Glassner makes the comment that performance is stressful, he means that performance brings up a wealth of anxieties about being judged on how well one performs. This argument is true to some extent for actors, so imagine the stresses experienced by an interactor, stresses that are exacerbated especially if the performer is expected to occupy the space as himself. Even actors will admit that it is much easier to embody a character and to hide behind the costume and conventions of that character than it is to play a heightened version of oneself, so it is logical that interactors would benefit from the same conventions. Scholars have recognized that individuals involved in games like *EverQuest* and other collaborative virtual environments (CVE's) exist in these spaces not simply as end users, but as social actors, and these social actors rarely face performance anxieties. In fact, persons involved in online communities, wherein their identities are concealed, often feel free to engage in behaviors that they would not necessarily engage in in real life. For example, a study by researchers at the University of Jvaskylä in Finland found that individuals employing female avatars were more likely to be sexually harassed than were their male counterparts (Kauppinen 32). In this day and age of politically correct, gender-friendly interactions, it would be concluded that the same social conduct would occur in CVE's. Yet individuals will engage in this behavior when their real-life identities remain unknown. That individuals seem to feel they possess these freedoms indicates that they are less afraid of censure in virtual

environments than they are in reality. This feeling of freedom is what will be referred to as the “veil of anonymity.” While harassment is an undesirable side-effect of the veil of anonymity, creators of IVT can use the aspect of anonymity to their advantage.

Consider the flaw in the *Oz* project wherein interactors were asked to physically occupy the space and portray themselves. There is evidence to suggest that the interactor’s gender may have influenced the choices the actors made when immersed in the story structure. Recall that the actor playing Tom treated the female interactor with hostility, while he was polite and civil to the male interactor. Yet, if the races, genders, ages, even the identities of the interactors had been concealed in some way, the interactions may have taken very different directions. The actors would have based their choices solely on the character the interactor was portraying, not on the interactor’s superficial qualities.

Another benefit of the veil of anonymity is that the interactors would most likely respond in a manner similar to that of individuals in CVE’s. They would feel less social pressure to censure themselves, opening them up to the possibility of more honest communications. They would feel less performance anxiety, as there is no way to be singled out in their everyday life as a “bad actor,” which according to Glassner is of paramount concern to interactors. Once this performance anxiety is negated, the interactor will find it easier to create an interesting and engaging character, to reveal negative emotions or taboo ideas and to revel in those hurtful emotions and scenes that may otherwise be too personal to be shared if the interactor’s true identity were known. In so doing, the interactor would become what Glassner says he cannot, a good actor, or

at least someone who is able to portray an interesting character with revelatory moments of truth.

Glassner also makes the assumption that good acting in a participatory form should share the qualities of what we deem to be good acting today. He cites naturalistic representation in the style of Stanislavski as the ideal, yet he concedes that naturalistic acting has not always been in vogue (297). He briefly mentions the style of pantomime and quickly dismisses it as “not in fashion today.” However, it is entirely conceivable that with a new form, such as IVT, a new style of acting may be needed, even appreciated and desirable. This new form may make the interactor’s involvement easier, since there is no reason to believe that it must follow what is deemed today’s “realistic” acting style to be valid. When we consider the history of acting, naturalistic acting has only existed for approximately a century. To suggest that the form of acting will not evolve as new theatrical conventions arise is entirely naive. In fact, any lack of participatory narrative does not necessarily speak to a dislike of interaction by the audience members, but of an inability or reticence of actors and other theater creators to properly facilitate participation, and the acting style of “the real” may be the cause of such hesitation.

Another misconception that seems to be prevalent among creators of interactive narratives is the idea that interactive narrative forms do not need an audience. While this may be true for interactive narratives and RPG’s, it is critical that IVT possess and cater to a viewing audience. In her article “Interactive Drama: Narrativity in a Highly Interactive Environment,” Marie-Laure Ryan states that “there is no compelling reason for a VR application meant for the pleasure of an audience to be both narrative and

interactive” (681). However, there have been performances that have benefited from both interactivity and narrative, like Tony n’ Tina’s Wedding. Merging the two forms to provide narrativity and interactivity is compelling simply from a creative standpoint, but there are even more compelling reasons to create a form that includes both.

The first reason to note is that “theater is incomplete until an audience witnesses it and creates it for themselves intellectually” (Kattwinkel ix). Since IVT is an attempt at creating an interactive and virtual theatrical art form, the presence of an audience is necessary in order to classify the form as theater. The second compelling reason is that spectating can be pleasurable, and the validity of this pleasurable activity should not be discounted simply because it may no longer be the most commercially viable of activities. The third compelling reason is that even if spectating becomes passé for future generations, and even if the theater of the future needs no spectators to be considered theater, if IVT is to bridge the gap between the spectating audience of today and that imagined, fully interactive audience of tomorrow, in the interim it must offer those audience members who wish to spectate the opportunity to do so. But the most compelling reason for the inclusion of an audience is to encourage community, community that is then responsible for maintaining the integrity of the experience and engaging in social discourse.

The validity of audience seems to be coming under more scrutiny, and less and less it seems that people are finding any value in the presence of spectators. In his book, Liveness: Performance in a Mediatized Culture, Philip Auslander concludes that audiences do not necessarily constitute community, especially if their only function is

simply to spectate (56). Furthermore, performance studies complicates the idea of performer/audience, as it suggests that individuals are constantly performing whenever they are engaged in any activity that is viewable, either by themselves or by others. If we take these views of audience into account, then the idea of including an audience gets murky and complicated. But there is a way in which to create a community among spectators and performers if the definition of allowable audience behavior is broadened to include not just spectating, but discourse and social controls as well.

Auslander goes on to debate the differences in the contexts of communities found in both live and mediatized events. Auslander states that “communality is not a function of liveness” but rather “derives from the specific audience situation” (56). The situation of IVT audiences differs greatly from the situation encountered in traditional theatrical performances. In traditional theater, audience members may enter the theater knowing a few other audience members, but the rest are relative strangers, yet in IVT, audience members have the ability to communicate with these strangers in order to form communities. Auslander states that this situation automatically reduces their status from genuine community to that of “little more than the common consumption of a particular performance commodity” (55). He also notes that theater, by its very nature, “presupposes a gap between performer and spectator” (57). Participatory productions attempt to bridge this gap, but it is not necessarily a gap that must be bridged by allowing every audience member to participate directly in the story. The gap may be desirable in some cases, especially if an audience member wishes to maintain a critical distance from the action.

Traditional theater is very good at allowing the audience to maintain critical distance specifically because of this gap. What traditional theater does not do, however, is to allow the audience to comment on the action as it occurs. Nor does it actively encourage debate before or after a production. Some productions attempt to encourage debate by providing post-show discussions and other types of outreach activities, but activities like these are not an average occurrence at most theatrical productions. IVT differs from this form because it encourages audience members to comment directly on the action as it occurs, through real-life and virtual means. For example, in IVT it is perfectly acceptable for an audience member to have ongoing conversations, both oral and textual, with other audience members both while the show is occurring and after it is completed. The interface that allows the audience to engage in these conversations can be as simple as text messaging on cell phones or as complex as providing an online chatroom in which the action can be dissected and analyzed. It is the hope that the discourse will provide responses to the artwork that will then be turned into a production that the rest of the community can view and upon which it may comment. In this way, IVT provides not only a means of commenting on the action with others in the chatroom, etc., but also a way in which to engage and include in the discourse viewers who may not have entered into the initial discussion and the other participants as well.

The presence of an audience also establishes a community that is beneficial in controlling undesirable behaviors in other audience members. Recall the success of *EverQuest's* online community to establish social control over disruptive or inappropriate behavior. As part of the experience of an IVT audience includes the ability to comment

on the narrative via chatrooms and other means, it is essential to outline guidelines for behavior that will not disrupt the group's ability to enjoy and engage in the artwork. The audience of IVT will possess the ability to condemn or criticize other audience members who violate the established conventions of appropriate behavior, such as the belligerent audience member or the audience member who engages in inappropriate behaviors such as sexual harassment, racial or religious hate acts, or other types of disruptive behavior. This is not to say that the audience will have the ability to censure artistic expressions of gender, race and other volatile subjects, simply that they will keep other participants from engaging in behaviors that make artistic exploration and expression difficult, or lessen the other participants' ability to fully engage in the artwork.

EverQuest's social controls are not the only successful element brought about by the presence of community. It is also successful in creating a community wherein social interaction is the highlight of engaging in the activity. While the participants in *EverQuest* all participate actively in the "performance" aspect of controlling a character and navigating the world, IVT allows only a few interactors to participate fully in the narrative simultaneously. This division of responsibilities does three things. First, those participants who wish to spectate rather than perform always have that option. Second, those participants who constitute the audience maintain a critical distance from the event, allowing them to engage in a discourse that requires analytical response, not just those responses that are visceral or immediate. Third, the division of audience and interactors allows one individual, or even a small number of interactors, to express a very specific viewpoint that will be seen by all of the rest of the participants, not just those participants

who happen to be in the same section of the narrative events as that interactor or small group of interactors. By including a limited number of interactors at a time and allowing an audience to maintain a complete perspective of the production, IVT circumvents the frustrations felt by interactors at Tony n' Tina's Wedding, who felt that they missed out on action that did not occur in their immediate vicinity.

Interactors are needed in order to allow the form of IVT to be competitive with other interactive narrative forms, but their presence is not solely valuable because it may make IVT more economically or popularly competitive with those other forms. Interactors are responsible for bringing voices of the community directly into the artwork. They can be responsible for assisting in the crafting of the narrative, raising questions and making statements about the nature of their community, much in the same way that Augusto Boal's spectators can. Their narratives can range from purely entertaining, as there is a social value of relieving stresses in the experiencing of entertainment, or they can be extremely commentarial or didactic.

While interactors are responsible for making a statement about their community, it is the responsibility of the scenarist to bring the interactor's questions, statements and entertainment narratives to life. The scenarist creates a narrative based on what the desires of the interactor(s) is/are, or they can craft a metastory that can be experienced by an interactor who does not necessarily wish to make a personal statement, but rather to experience the satisfaction that embodying a character and performing that character can bring. Scenarists can find successful models when constructing these narratives in the metastory structure of *EverQuest* and also in Tony 'n Tina's Wedding's successful use of

ritualized social context. Whatever structure scenarists use to allow interactors into the space, it is paramount that they remember that their primary responsibilities are to assist the interactor in experiencing the type of narrative that the interactor is seeking and to provide a structure in which interactivity and improvisation can occur. As Marie-Laure Ryan notes in “Interactive Drama: Narrativity in a Highly Interactive Environment,” the use of a script “limits the freedom of the user, but it also maximizes the chances of a pleasurable performance” (681).

The *Oz* project provides an example of using a scenarist and loosely scripted narrative to construct an interactive drama that the interactors found pleasing, but that lacked audience appeal. Yet the two can be combined, so another primary goal of the scenarist should be to craft a narrative that will appeal to an audience as well. Ryan notes:

Aesthetic satisfaction in an interactive environment requires a difficult compromise between the respective freedoms of the user and the system designer [. . .] how can the interactor control his actions, while his destiny is itself controlled by a god-like authority of a storyteller? The interactor lives the fictional world from the perspective of life, as a continuous present, and his actions are oriented toward an unknown future, while the storyteller creates the story from a perspective external to the temporal sequence [. . .] Action is prospective, but storytelling is largely retrospective. (628-683)

Ryan goes on to say that because the interactors deal with the prospective aspect of action, whatever they introduce into the system will have an element of randomness, which threatens the classical value of the work as a complete and eloquent artwork. However, she also notes that randomness can contribute to the artwork, but it must be “tamed by design” (683). She calls for an “integration of the bottom-up input of the user into the top-down design of the storyteller.” Ryan expands on this idea by suggesting that the interactors be familiarized with the script before-hand and that they be made to understand that their enjoyment of the narrative depends on their cooperation and collaboration.

This situation is exactly what happens in IVT. The interactor states what he wishes to explore, be it a political statement, a gender issue, or an exciting adventure quest in which he is the hero. The scenarist works with the interactor to discuss what types of situations would occur and what possible outcomes of those situations might be. The scenarist constructs a plot graph and other characters based on the discussions she has had with the interactor. Because the story originates with the interactor’s ideas and he has been involved in the creation of the scripted events and characters, the interactor has an investment in the narrative and some idea of how the story will progress. The interactor can also choose just how much of the story he wishes to know, allowing for some elements of surprise if the interactor so desires them. Or the interactors may become familiar with another piece of interactive story telling by viewing it as an audience member, and wish to interpret the scripted events as he sees fit. There are many

possibilities to consider, but whatever form scenary takes, it will be a vital element in the creation and success of IVT.

In IVT, scenarists and directors may also benefit from the use of virtual reality technologies in much the same way that University of Kansas' production of The Adding Machine did. Recall that the 3-D images that were projected onto the stage had an improvisatory quality, a quality that it was posited could be built on to allow another interpretive voice into the performance. Scenarists and directors might be able to utilize this element to accomplish more routine tasks, like establishing new scenes as the plot graph calls for them, or to move the scenes along at the pace the scenarist and director find most appropriate. They might also be able to do as Laurel suggests and manipulate "mood, atmosphere and situation through direct access to scenic elements and virtual objects" (192). The use of VR could also help abolish the temporal concerns raised by *EverQuest*, in which too much time was spent accomplishing mundane tasks like walking. For example, imagine that the actors and the interactor must leave one location and travel a far distance. A talented VR operator could move or morph the action through a myriad of environments, much like a film montage, so that the time it takes to move from one environment to another is appealing not only to the audience, as they are not forced to watch thirty minutes of walking, but to the interactor as well, as he feels he has in fact moved from one space to another in a manner that does not destroy the illusion of the world.

IVT collaboration does not end with the collaboration between interactor and scenarist. Actors are a vital collaborative link in the process of IVT. It is the actor's

responsibility to maintain the integrity of the interactor and scenarist's script, to assist the interactor in the navigation of the virtual world, to assist the interactor with the performance of the piece, to interpret their own characters and act accordingly, to construct a pleasing experience for both interactor and audience, to assist the director in establishing and maintaining a smooth and cohesive collaborative environment, and to assist the interactor in the rehearsal period. Because this is theater, done for the pleasure of an audience and a living, breathing interactor, live human actors are absolutely vital. They cannot be replaced with artificially intelligent agents, or the experience is no longer theatrical. Furthermore, their presence allows for, facilitates and is a part of human discussion of human views on human issues, something no software program, no matter how sophisticated, is capable of doing.

The presence of actors can help to negate some of the concerns raised by Glassner and other critics of interactive forms, but since Glassner is especially critical of the idea of interactors attempting to "act" it will be his concerns that will be addressed here. Recall that Glassner asserts that acting can be painful and revealing. Yet, if participatory forms are never going to be revelatory or have the possibility of raising negative emotions, then we must question that form's ability to do anything other than entertain. While it is true that IVT can be an entertainment form, it is also capable of facilitating social discourse and political commentary, among a myriad of other possible functions. What makes IVT capable of raising relevant social questions is the presence of interactors who wish to explore a certain topic or theme. These themes should not be relegated to the banal simply because it might be painful or embarrassing, yet IVT will

not be successful unless there are safeguards in place to assure that participants will not be so uncomfortable that the relevancy is lost. While the safety provided by the veil of anonymity has been established, anonymity alone may not be enough to maintain the interactor's sense of safe exploration. If belligerent or inappropriate behavior occurs in another interactor, actors can be responsible for steering the other interactors away from the belligerent participant, while the director decides how best to handle the belligerent interactor. The director may coach the actors via headset on the best way to steer the action or may choose to remove the interactor from the narrative altogether, by hitting a kill switch that removes the interactor's avatar from the stage. Very serious offenses may even result in being banned from the theater's future productions.

The other problem Glassner identifies that actors can help address is the idea that crafting a good character is difficult. IVT lets interactors create a character with the help of a talented scenarist, but assisting with the creation of the idea of that character is where the job of the scenarist ends. It is the actor's and director's responsibility to assist the interactor with the task of fleshing out the character during the rehearsal period. One of the major problems in the *Oz* experiments was that the interactors and actors were not familiar with the events and had difficulties maintaining the narrative's integrity, but that problem can be solved by heeding Ryan's call for the integration of the interactor well before the actual time of performance. This integration is exactly what the rehearsal period of IVT attempts to do. The rehearsal period of IVT can vary depending on the experience of the interactor, the complexity of the narrative and the needs of the troupe. During the rehearsal period, the actors can serve as examples of how to approach the

character, asking questions and making non-intrusive observations about the interactor's character, and guiding him through positive reinforcement and critique. It should be noted that the actor's criticisms should be relegated only to those comments that do not interfere with the comments of the director and should never be designed to inflict embarrassment, shame or other negative emotions on the interactor. The interactions of the actors and interactors during a rehearsal period should be akin to the relationship of a seasoned actor and a newcomer and should always be respectful of the director's role as head of the production.

Actors can also be used to assist the interactor in navigating the narrative in a way that keeps the interactor focused and maintains the integrity of the "script." Assurance of narrative integrity is especially needed when the interactor is participating in a narrative that he is not directly responsible for creating. They can also serve the function the actors in the second run of the *Oz* project's Tea for Two experiment served, facilitating the forwarding of the narrative in such a way that the interactor does not feel manipulated when the action needs to move forward or when the interactor might be veering away from the course of the "scripted" action.

The final element needed to establish a successful IVT is the presence of a director, who will function in much the same way as the director of traditional theater. The director's primary artistic function will be to ensure that the narrative appeals to both the interactor(s) and the audience and that the narrative retains its integrity. The director will also be responsible for overseeing all aspects of the production, including the collaboration between the scenarist and interactor, design aspects, and the rehearsal

process. He may also function as the director of the event itself, steering the action in much the same way as the director in the *Oz* project's Bus Station, or that job may fall to the scenarist, or possibly to a very intuitive "stage manager," although it seems preferable that the job remains the director's, who, due to the rehearsal process, will know the innate abilities of the actors and interactors intimately. Directors will also assist in facilitating discourse.

Each of the vital elements of IVT occupies a critical place in the form. The presence of interactors brings voices of the community into the process, which is the primary goal of IVT, but their presence also makes IVT more commercially viable and potentially more mainstream, especially for future generations who will be accustomed to interactive forms. The primary goal of the scenarist will be to assist the interactor in bringing the interactor's views and voices into the narrative and aid the interactor in crafting characters and events that are pleasing not only to the interactor, but to an audience as well. The director will assist in keeping the narrative pleasing to all parties and will also occupy some of the more traditional roles of the director, including overseeing all aspects of the collaborative process, including the rehearsal process with interactors. The director will also assist in the facilitation of the discourse and will be an omniscient presence during the narrative event itself, and may or may not be seen, depending on the needs, themes or statements of the production. The use of VR tech will help establish a veil of anonymity for the interactors, provide scenery, props and other environmental elements that will enhance feelings of immersion for all participants, provide a venue for social gathering, help abolish temporal issues and provide the

possibility for a new interpretive art form. The audience's role will be to establish a context of community in which social discourse and shared events are still the primary goals.

The problems outlined by other creators of participatory narrative can be addressed and even solved with the implementation of these six specific elements. However, it is necessary to understand how these elements will work together. The following chapter will provide an imagined production of IVT, from its inception to its production, as well as discuss some of the technical aspects that exist today that can be used to establish the medium. A brief discussion of new and emerging technologies will be included, and ways in which those technologies might be of use to IVT will be analyzed.

Notes

¹⁰ CAVE stands for Cave Automatic Virtual Environments. CAVEs are VR systems in which 3-D images and animations are projected onto screens that surround the interactor (usually on three to six sides). These projections are accompanied by surround sound as well as the ability to track the movements of the interactor, who controls a wand that allows the interactor to move and manipulate the 3-D objects.

¹¹ Margaret Kelso is also a playwright, but her function in the *Oz* project was as a scenarist.

CHAPTER FOUR

IVT AS KARAOKE THEATER

The discussion of IVT in Chapter Three addresses the problems inherent in interactive fictions, but there is one more hurdle that IVT must overcome in order to be a truly successful medium. In Interactive Storytelling, Andrew Glassner posits what he terms the Most Fun Theory, which states that individuals will not spend a great deal of time or energy on an activity unless they feel the rewards will be more significant, which in his words means “high quality fun.” IVT can, and should, be used to address issues, teach and comment, but as many of the arguments in Chapter Three were based on refuting his ideas, the following picture of IVT will be given to illuminate its “Most Fun” qualities. It may be helpful to think of this version of IVT as Karaoke Theater.

* * * * *

A Snapshot Of IVT In The Year 2035

E. and a group of her friends are going out to their favorite IVT, where E. and her friend M. plan on interacting in a continuation of one of their favorite narratives, in which they belong to a band of pirates. When they last interacted in this narrative the group of pirates were about to storm aboard a ship, where they thought one of their fellow crewmembers might be hiding with treasure he had stolen from them. When they arrive at the theater they enter through the front entrance, since they really want to watch the shows before theirs, especially since their favorite actors are in most of them. There’s another show on the program list for the night in which a particularly baffling murder

mystery is going to be solved. But the highlight will be the final show, which features an interactor who goes by the name of “Jacobus.” Jacobus will be battling a dragon in the story and at the end the identity of that show’s interactor will be revealed (with the permission of the interactor, of course). This “unveiling” is often done when an interactor is going to join an IVT company as a full-fledged actor, a rare but exciting occurrence that will probably bring many of that interactor’s fans to the IVT company he is about to join.

The group secures their favorite table, then heads off to the theater’s café bar, where they order food and drinks. Behind them is the stage, where the actors are engaged in a new narrative series about a group of Plato’s students in Ancient Greece, where the interactor has made the decision to play Plato and one of her favorite actors is playing a particularly interesting character that makes use of his comedic talents. It looks to be very promising, and E. finds that she is deeply intrigued by the time her food is ready. E. often watches shows via her holographic living room but is enjoying this show so much that she adds this to her list of shows to see in person. The show lasts about fifteen minutes, a fairly standard time allotment that allows a larger number of shows per night. Every now and again the company does special shows that run much longer, but those are usually done around a holiday or some other special event. E. spends her time over the next few hours watching the shows, eating and chatting with her friends, both at the table and on-line, and soon it is time for M. and E. to go to the interactors’ rooms.

There are four usable interactor’s rooms, three of which feed to other smaller theaters who pay a small fee to use them. These are typically the theaters where the

interactors wish to make political statements and the like, since those kinds of shows typically are not as popular as entertainment theaters like this one and do not rake in the kind of money that entertainment theaters do. There's also a rehearsal room for interactors who have never used the technology before which can be used free of charge for a specific amount of time. The use of the rehearsal room keeps the rehearsal time needed for newbies to a minimum, and makes the rehearsal more about the narrative than about acclimating to the technology.

E. and M. enter the interactor's rooms, where they greet the room operator warmly and don their motion capture gear and the room operator sets the program to display their pirate avatars, etc. On the stage, the 3-D VR projections change to the opening scene of the pirate narrative and the actors take the stage. The crowd applauds, and E. feels a surge of adrenaline as her optics display shows the 3-D image of her avatar joining the actors on the stage, and the crowd's applause gets louder. She is especially excited because she has told her mother that she is interacting in the pirate narrative, and her mother has promised to watch E. on her holographic desktop while she is at work, half way around the world. E. and M. bow, and so do their avatars on the stage in the performance room. E.'s avatar is a bulging, tattooed bald man with one eye and a limp, so as she begins to walk, she falls into the limp she adopted during the rehearsal period of this show a few weeks ago. She picks up the sword prop that is specially rigged with motion capture tech and programmed to look like a much larger, heavier and dirtier sword. The voice recognition software takes her high-pitched female voice and turns it into a gravelly, growling male baritone as she gives a yell and charges onto the ship.

After the show, E. and M. reenter the main space to the applause of their friends and most of the room, who know that they are the interactors in the pirate narrative. E. and M. have decided not to hide their identities with this show, as they do in some of the other narratives they are involved in, since they need to get feedback from audience members if they are going to improve their performance skills. E. has hopes of joining a company as a full-fledged actor some day, so she needs all the criticism she can get. E. and M. return to their table and the night's last event, wherein "Jacobus" will slay his dragon and make his identity known. E. orders a soda and sits back down, just as the usher comes around to pass out the new neural transmitters the theater has recently acquired. The show begins, and the dragon seems to be in the room, thanks to the transmitters. E. can feel the heat of its breath on her face and the rumble of its growls seems to vibrate her whole body. When the dragon is slain, the crash of it falling to the floor is almost deafening. The crowd stands applauding and yelling in appreciation as the actors bow. The interactor enters the stage to be introduced to the audience. It turns out to be one of their casual acquaintances from a politically based IVT they frequent, who interacts in a great deal of political satire. It turns out he will be joining the acting troupe at the political IVT, and E. imagines what a boon this will be for their attendance records. She leaves the theater with her friends and heads home, having experienced a great night's entertainment.

Some creators of traditional theater will balk at many of the ideas presented in this "snapshot." No doubt the biggest objection will be to the idea of untrained interactors

“interfering” with the work of the actor. Traditional theater is a wonderful place to highlight the actor’s naturalistic style and “realistic” character portrayals. However, there is a great deal to be learned and derived from the presence of interactors, and that is the primary goal of IVT. Boalian theater provides an excellent example of how the inclusion of an interactor can heighten the social value of the art form, at least in its power to influence social views and create social awareness, yet Western theater creators have not adopted Boalian techniques on a large scale. This reticence may be due to the fact that Boalian theater tends to be politically charged and many theaters seem to be averse to alienating any of their season subscribers, but also because a politically charged atmosphere does not tend to provide the lighter, jovial atmosphere that Schmitt identifies as a desirable quality in participatory productions. Additionally, theater creators may not include untrained interactors due to a fear that participatory forms somehow pollute the sanctity of the actor’s work. Since we know that participatory forms can and do work, we must examine some of the reasons why we are so afraid to let the interactor into the performance space.

The first reason that may hinder theater creators from creating participatory forms is that they may not be familiar with establishing clear boundaries for the interactor. Yet in Chapters Two and Three clear examples of these boundaries and how to establish them were found in examinations of *EverQuest* and Tony n’ Tina’s Wedding. The second reason, and the one that seems more daunting to overcome, is the belief that the only way to properly appreciate the actor’s art is to respond only when and how it is deemed appropriate by the script. Audience members are expected to respond with only the

prescribed emotion of the moment and are encouraged to show appreciation only through clapping, which also must occur only when the lights go down.

For theater creators to get over the fear of an interactor intruding upon the art, something revolutionary must happen. Actors who wish to act in participatory narratives must be given the proper tools to allow the interactor into the narrative. The need for new tools means that the standard actor training system must be supplemented or even replaced by a new form of training, one that includes a higher emphasis on improvisatory and narrative guidance techniques, and less emphasis on naturalistic character portrayal. While valuable in its own right, along with “realistic” or “naturalistic” actor training methods there seems to come a demand that the audience revere the actor’s talent in total silence. Certainly these acting skills can be worthy of reverence and awe, but so are the improvisatory and interactive skills of artists who are trained in those techniques. The means by which an audience member’s awe is expressed should not exclude other forms of expression of appreciation, which include the desire to inhabit the same space as that actor and interact with her. Actors must be taught that applause is not the only worthwhile audience response. The ideal training system for IVT actors would need to focus not only on improvisation skills but also assist the actor in gaining the skills to read and respond to interactor cues, as well as to access audience perception of the stage events. In other words, the training must allow actors to achieve a balance in maintaining narrative integrity with crafting a pleasurable interactor experience as well as a pleasing audience experience. Actors must also be technologically proficient with any hardware they use and must be able to acclimate easily to VR technologies.

The other major objection traditional theater creators may have is to audience members eating, drinking and talking during performances. Yet this is exactly the type of behavior audience members at productions like Tony n' Tina's Wedding engage in, and it is clear that many audience members enjoy this more informal environment. Since IVT must appeal to audiences as well as interactors, it is imperative to relax the rules of spectatorship, so that a higher degree of successful social interaction, like the highly successful interaction found in *EverQuest*, can occur. If social interaction occurs, not only does the audience feel as though the investment of their time and energy is worthwhile, they also establish tighter bonds of community, making their spectatorship less of what Auslander terms common social consumption and more of what he deems genuine communal experience.

Aside from eating, drinking and talking during the show, rules of spectatorship can also be relaxed by allowing the audience to choose the location from which they wish to view the performance, in either the actual physical performance space or in another location via live streaming video fed over the Internet.¹³ No matter where the audience member views the show, he or she should be allowed to come and go from the performance space at will. This idea is not new, as many types of theater, including classical Greek and many non-Western forms of theater, allowed audiences to behave in exactly the same ways. But Western theater creators often do not embrace the idea of an at-will audience. IVT can accommodate Western ideas, as those theatrical companies who wish to maintain some degree of silence in the actual performance site may do so, especially if the creators feel the piece requires it. However, it is imperative that an

audience in a case like this one will have access to, and be encouraged to use, a digital means of communication.

Glassner maintains that any form that requires an individual to participate as an actor will not achieve any degree of commercial or mainstream success. IVT responds to this assertion by inviting into the performance space only those individuals who desire to participate, thus assuring that any interactors in IVT have already decided that creating and performing in a narrative are activities worthy of their time and effort. Even Glassner admits that performativity will “doubtlessly appeal to some people” (367). Amateur actors, just like amateur singers, enjoy displaying their talents in community theaters and other performance areas. IVT will simply be a new medium whereby these individuals can find newer and bigger audiences to appreciate their skills, but unlike musical Karaoke, IVT is also capable of creating meaningful social discourse. In the form of IVT that promotes social discourse, interactors choose what kinds of narratives in which they wish to participate, what characters they will portray, and can even create the narrative structure. But entertainment narratives will most likely be written without the interactor, who will instead choose a narrative from a menu of choices, much like Karaoke singers choose songs, or create a narrative from a series of narrative frame menus.

Interactors who choose to participate in entertainment narratives will most likely derive the most fun from the performance aspect, yet it will be necessary to have a rehearsal period in order to acquaint the interactor with the technologies, narrative structure and other actors, etc. The rehearsal period may be as short as ten minutes or as

extended as a number of weeks. In the case of the interactor who wishes to make a social comment or raise questions, then a longer rehearsal period will be necessary, and the interactor will find satisfaction in the process of bringing this story to life. However, in the case of the interactor who is simply out for the most fun, the rehearsal period should be as engaging and brief as possible.

Although it is not as of yet as sophisticated, eloquent or intuitive as would be ideal, the technology to implement IVT already exists. Systems like Mark Reaney's "garage VR" make the technology affordable and accessible. Other, more expensive and sophisticated options exist as well. Creations like the virtual reality CAVE, which was first developed by researchers at the Electronic Visualization Lab at the University of Illinois, provides an immersive performance space. The virtual reality sphere created by brothers Nurakhmed "Ray" Latypov and Nurulla Latypov provides immersive individual virtual performance spaces for interactors (Richards). Outputs of the interactor can be captured via avatars, which can be controlled in real-time via wands, keyboard shortcuts, or even optical, infrared, or magnetic motion capture suits.¹⁴ The actor's presence can be captured via video and transferred to the interactor who can then view the image.

Audiences can communicate via text messaging or online chat. Directors can communicate to the actors and other participants via headsets, and VR operators can control video and VR projections, as was done in The Adding Machine.

However, there are emerging technologies that will facilitate a more eloquent and intuitive system. Sony has been awarded a patent to develop a neural transmitter that sends pulsed ultrasonic signals into the neural cortex, causing changes to the neural

timing in the cortex, which theoretically will cause the individual receiving the pulses to experience various types of sensory inputs, including sights, sounds, smells and the like (Hogan 10). Holographs have, until now, only been capable of spinning in their axis, but a system for dynamic holograph technology is being developed by Dr. Harold “Skip” Garner and team at the University of Texas Southwestern Medical Center, in which holographic images no longer have a fixed axis and can move through the system jumping, running and moving about with six degrees of freedom (Keats 60). While both technologies will most likely spend many years in development, it is projected that dynamic holographs will be ready for public consumption in the next ten to fifteen years. Additionally, advancements in processor speeds, computer memory capabilities and software programs are continuously being made and will significantly impact the speed and quality of more standard VR applications.

While traditional theater can and should be a vital means of artistic expression in the decades to come, it is increasingly urgent that theater creators respond to a populace that demands and expects a deep degree of immersion and interactivity from their entertainment mediums. More and more, creators of other mediums are co-opting theatrical elements to further the success and popularity of their own mediums. While there is nothing wrong with this practice, theater artists must not be afraid to co-opt in turn the successes of other entertainment mediums, including their technological innovations. In fact, it is the technology that we must embrace most fully in order to remain thriving and vital. It may even be that in the future, IVT can offer those interactors who are used to immersion and participation a bridge from interactive

mediums to the more traditional spectator's theater. It is my hope that the IVT proposed herein can aid in some small way to keep the art of theater, in all its forms and genres, at the forefront of successful and consequential art forms.

Notes

¹² The Electronic Disturbance Theater has successfully used live streaming video to reach and motivate a wide politically active audience (Fusco 151-162).

¹³ It should be noted that the ability to motion capture via many of the existing optics systems is nearly impossible if the interactor is simultaneously surrounded by projected images on screens, but systems like Meta Motion's "Motion Captor" can be used without much difficulty.

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