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First Person Victim:  
Using Interactive Drama and Tragedy  
to create Awareness about the Consequences of War

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### Abstract

What will you do when an air strike is announced, the attack is targeting your hometown, and you can hear the bombers coming nearer? How will you find your loved ones in the carnage after the explosions? What would it be like to be on the other side of the guns pointed at you by the invaders? What happens when we turn the roles around and the "First Person Shooter" becomes a "First Person Victim" experience?

Scientific and psychological studies claim a variety of triggers in video games with violent content may promote aggression. To oppose the violent behavior of players in these games, this paper will describe how the sources of aggression and first person shooter conventions have been exploited in the "First Person Victim" experience to create awareness about the consequences of war for civilians. The paper will also explain how our "Interactive Dramatic Experience Model" organizes the various events of the experience and mediates an emergent narrative by the use of the first person shooter form. The theme is communicated through the use of tragedy, and turns the roles around to let the participants encounter a realistic war-scenario while being confronted with ethical issues, by enacting the experience of being a victim of war. An evaluation of the implemented experience indicated that the participants were engaged in the experience, despite the tragic theme, and that they were able to acquire an understanding of the theme being mediated.

**Keywords:** Narrative, Drama, Interactive, Emergent, Experience, Engagement, Victim.

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### **Introduction**

Ever since the advent and popularization of video games there has been an ongoing debate and many investigations about the role of violent games as enhancers and triggering factors for aggressive behavior in frequent players (Levenson, Kiehl, & Fitzpatrick, 1995; Dill, C. Anderson, K. Anderson, & Deuser, 1997; Anderson & Dill, 2000; Anderson & Bushman, 2001; Anderson, 2004; Gentile, Lynch, Linder, & Walsh, 2004; Uhlmann & Swanson, 2004; Bartholow, Anderson, Carnagey, & Benjamin, 2005).

Many reports have actually shown numerous triggering factors in violent games, which promote aggressive behaviors and affective states. It is therefore very intriguing that in a time in which the notion of "corporate social responsibility" has become mainstream in the business world, and in a context in which the "public" has become very sensitive towards social, ecological and ethical issues, the game industry continues to promote and profit from violent themes in an ever expanding market. The question remains open on whether this preference is really consumer driven, whether it is just conformism within the industry, or, even worse, whether it is just a lack of creativity and responsibility on the part of authors and designers.

This state of affairs inspires us to propose inverting one of the most successful formats in which violent video games are implemented, namely the "First Person Shooter" genre (FPS). This paper describes the implementation of what could very well be called the "First Person Victim" (FPV), a narrative re-conceptualization of the violent first person shooter

experience intended to communicate how it feels to be on the other side of the guns, which allows the participants to experience a more realistic view of the consequences of war on its victims. We briefly review the literature concerned with identifying some of the cognitive, social, and cultural factors embedded in violent video games, which function as triggers of aggression and conflict escalation, and use them as inspiration for implementing reverse factors that could encourage empathy, peaceful behavior, and conflict avoidance.

We build on the conventions of 3D first person shooter dynamics, aesthetics, graphical interactivity, and even theme (we also use a war scenario), but we dramatically invert the logic of the FPS game. In order to deliver a different perspective of such a violent environment—as found in a war zone—we communicate the experience and the main theme via events in an “interactive emergent drama”; we resort to tragedy as a way to structure the experience in a dramatic fashion. This choice is inspired by the manifest belief in ancient Greek culture that the cathartic effects of tragedy should, and indeed did, play an important role in the moral and ethical development of the audience, therefore encouraging empathy and justice in society.

Independent of whether the enacted actions are virtuous or vicious, violent or peaceful, continuous and repeated practice or dramatization of such actions will decisively influence the personality and behavior of a person carrying out, enacting or simply witnessing such actions (Boal, 2000). The implications of violent video games are obvious. Interactive applications such as computer games have the potential to be one of the most efficient media formats for providing participants with the ability to practice specific types of actions dependent on the context of the designed game. In this regard, the intentions, creativity and awareness of the author play an important role in providing the participant with a meaningful and coherent context with which to interact.

The present work intends to exemplify some of the potentialities of interactive drama, storytelling and video games for sustainable, ethical and socially responsible applications that could offer the user an active and instructive opportunity to be in contact with sensible issues in contemporary society. It is a humbling encouragement for authors, storytellers and game designers interested in this kind of awareness and in creating awareness.

### **Mediated Violence and Aggression**

In the present context, an operational definition of aggression is important. In this study aggression will be defined as “*any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment*” (Baron & Richardson, 1994, p.7).

Individuals differ significantly in their tendencies to commit violence (Dill et al., 1997). Olweus argues that these differences appear by the age of three and remain stable over time, and concludes that the individual’s understanding of the situation is essential in determining his/her behavior (as cited in Dill et al., 1997, p.273). Moreover, Huesmann, Eron, and Yarmel (1987) claim that aggression in childhood is a precursor to a criminal record and a decline in intellectual functioning in adulthood, as the early formation of aggressive conduct leads to behaviors that are incompatible with intellectual development. This claim is also in accordance with Aristotle, who posited that the formation of habits (the intentional and constant ability to carry out action) should begin in childhood (Boal, 2000).

Studies have shown that more hostile, or characteristically aggressive, individuals have easy access to aggressive thoughts and feelings when exposed to violent content. Furthermore, the psychological effects of playing violent games have a greater negative impact on children (Gentile et al., 2004). Such types of games provide the player with the

ability to repeat violent actions continually, which may lead to and generate antisocial behavior in the recipients (Levenson et al., 1995).

According to Uhlmann and Swanson (2004), playing violent video games leads to the automatic learning of aggressive thoughts and behavior. For example, playing a game such as Doom associates the participants with aggressive traits and actions. Greenwald, Banaji, Rudman, Farnham, Nosek, and Mellott (2002) claim that the “self” is a knowledge structure prearranged as a network of association. Markus and Nurius claim that within this structure are multiple possible selves in which some are more chronically accessible than others: “Over time, repeated priming of a more aggressive possible self may make it the actual self, as it becomes the most chronically accessible self-representation” (as cited in Uhlmann & Swanson, 2004, p.49).

### **Copycat violence**

As stated in Anderson (1997), “story lines in which the violence of the protagonist is both justified and successful are more likely to produce increases in short-term aggression by the viewer than is unjustified or unsuccessful violence” (p. 162). The transferring of violent tendencies from violent media to the viewer thus occurs in a copycat fashion, in which the viewer learns a number of new ways to harm others. Anderson (1997) reports a real life example in which two armed men killed three people by forcing them to drink liquid Drano; the killers had seen such a method of killing in the movie *Magnum Force*. Anderson et al., Berkowitz, and Geen claim that exposure to violent scenes primes aggressive thoughts in semantic memory through a spreading activation process: “This priming effect thus increases the probability of an aggressive response to some provocation, real or imagined, by increasing hostile affect, by promoting hostile interpretations of the provocation, or by instigating use of aggressive behavioral scripts” (as cited in Anderson, 1997, p.162).

**Aggressive solutions**

Particularly regarding the role of violent video games in promoting hostile behavior in recipients, Anderson and Dill (2000) argue that they encourage aggressive solutions to conflict situations and provide a forum for learning such antisocial or hostile behaviors. Moreover, the effect of violent video games is cognitive in nature and can influence recipients in both short- and long-term play. In short-term playing, it appears to affect aggression by priming aggressive thoughts. In longer term playing, “the player learns and practices new aggression-related scripts that become more and more accessible for use when real life conflict situations arise” (Anderson & Dill, 2000, p.788). Continuous and repeated exposure to violent video games affects a player’s personality, leading to consistent increases in aggressive effect.

**Active participation**

The characteristics and active nature of learning environments within video games imply that this medium is more dangerous than TV and movie media as far as violent content is concerned. Anderson and Dill (2000) conducted a test on college students within and without laboratory conditions using their general affective aggression model. The results showed that students who played violent video games inside the laboratory “behaved more aggressively toward an opponent than did students who had played a nonviolent video game” (Anderson & Dill, 2000, p.787). On the other hand, for the tests conducted outside the laboratory, “students who reported playing more violent video games over a period of years also engaged in more aggressive behavior in their own lives” (Anderson & Dill, 2000, p.787). The same study also showed a positive association between violent video games and an aggressive personality, meaning that extensive exposure to violent video games contributes to the creation of a belligerent personality. The latter finding is also supported by Huesmann,

whose empirical data on TV violence also suggests that violent video game exposure causes “decrements in academic achievement because of the disruption of progress in school that is associated with increases in aggressive behavior engendered by media violence exposure” (as cited in Anderson & Dill, 2000, p.782).

### **Weapons and aggressive behavior**

Another interesting factor is that, according to studies conducted by researchers for over 30 years, the mere presence of weaponry increases aggressive behavior and leads people to behave more aggressively than they would otherwise in situations where there is no access to a weapon. An explanation for this effect involves priming: the identification of a weapon can automatically increase the accessibility of aggression-related thoughts (Bartholow et al., 2005).

The logic is simple—in the Western world, guns are associated in memory with concepts that involve aggression and hostility, because they are viewed as instruments designed to kill and hurt people. Furthermore, “weapon concepts become linked closely in semantic memory with aggression- and hostility-related concepts because of their similarity of meaning” (Bartholow et al., 2005, p.49). The implication here is that the more one plays with fake guns (as in video games), the more one is prone to non-gun-related aggressive behaviors.

### **Reasons for aggressive behavior**

Anderson and Bushman (2001) advance a plausible explanation for the observable increase in aggression and violence that derives from being exposed to violent media. They claim, “the enactment of aggression is largely based on the learning, activation, and application of aggression-related knowledge structures stored in memory (e.g. scripts, schemas)” (Anderson & Bushman, 2001, p. 355). They conclude that violent media increases



aggression by a) teaching viewers how to aggress, b) priming aggressive conditions, c) increasing viewers experience through arousal, and d) creating an aggressive affective state as a result of media consumption.

As exemplified by this short review, a consistent body of research indicates that exposure to violent video games can be considered a public health threat to children and youths (Anderson & Bushman, 2001). The question we therefore have to ask is how can this knowledge about factors that trigger and stimulate violence be used to counteract and prevent aggressive attitudes and instead sensitize towards socially responsible tendencies?

### **Creating Awareness about the Consequences of War**

While this introductory review on the relation between violent video games and the manifestation of aggressive behaviors was by no means intended to be exhaustive, it has allowed us to identify certain causal links or factors that can potentially promote or trigger aggressive attitudes. Following on from this, our intention is to use these factors to exemplify how authors of interactive drama and/or storytelling, including video games, can consciously implement ideas that go in the opposite direction of promoting aggression, instead enhancing the exploration of empathy, peacemaking, social responsibility, and other similar values.

In our example, it would be the authors' intention to confront the participant with a more realistic situation than the disproportionate, destructive virtual realities portrayed in the most successful FPS games. In order to counteract the aggression-promoting tendency of these types of games—and their highly unrealistic scenarios—we proposed to experiment with what we call the “First-Person-Victim” involved in an equally violent war scenario (as is usual in typical FPS games), but from the perspective of a normal and healthy human being who is confronted with something as terrible as the consequences of war violence in his or her

homeland, rather than from the unrealistic point of view of an invincible and destructive soldier or warrior.

To make the participants aware of and acquainted with the devastating impacts and consequences of war, the designed context and theme were created in such a way as to reflect and represent a war torn country. The participant is able to follow the outcomes of violent actions, rather than practicing aggressive behavior, by navigating and interacting in different dramatically engaging events, and by linking causal relationships between the events.

Participants should be able to construct an emergent narrative in their imagination progressively, which will depend on their personal background, abilities and the way each individual interprets the events. The total amount of encountered events by the participants enables them to generate a story path that rises in tension until it reaches the highest level with an unhappy, tragic ending to evoke the maximum impact of catharsis.

### **Dealing with the Elements of Aggressive Behavior**

To communicate the theme, some of the sources of aggression identified in the previous review can be used as inspiration for designing some of the constraints and parameters in the application, in order to provide an experience that goes in the opposite direction of stimulating violent actions, promoting instead ethical decision making.

The first key element is the storyline. Contrary to the traditional role of the protagonist in violent games, in which the hero advances by increasing his/her destructive power during the development of the story, the role of the protagonist in this implementation tends to be more realistic. As the character proceeds in the story and encounters sad and dramatic events, the more powerless and hopeless he/she may feel, instead determining strategies to avoid violent situations and any harm inflicted by others.

Another parameter is to invert the narrative context of traditional first person shooter games. For example, this would involve creating an environment where a series of tragic events unfold, manifesting the impact of extreme violence (e.g. a residential area hit by an airstrike with civilian survivors asking for help), where instead of empowering the participants to successfully use characteristically aggressive actions to overcome the situation, they will be in a vulnerable and oppressed situation with little power to avoid harm from their surroundings. The participants will witness different tragic events by taking the role of a victim of war experiencing distress through the passage of several tense events as they get closer to the deadly war zone. This point is related to avoiding “practicing aggressive solutions”. In fact, and on the contrary, the participant will listen to the other characters suffering, and then try to find suitable solutions for an unarmed civilian victim. There is, of course, active participation from the protagonist’s side, but it will not be active participation in a violent direction.

As in all FPS games, weapons are present in the environment, but the novel fact here is that the participant will take on the role of a civilian victim with no access to weapons, which will be in the hands of the oppressors so the participant can experience the negative impact of facing an armed foe (fear, threat, etc.).

Regarding physiological arousal, experiencing some of the physiological reactions associated with fear, frustration and powerlessness will hopefully prompt a reflection on the participant that war is actually not a game and certainly is not fun, eventually triggering more empathic feelings towards fellow humans who in real life are hit by war, oppression, forced migration, social collapse and disintegration, to name but a few. Instead of creating an “aggressive affective state”, the objective should be to produce an “empathic affective state”.

### **Communicating the Theme through Tragedy**

In order to employ an alternative to the usual “be the hero” stories in violent games, and to convey the experience of being a victim of war when encountering the FPV experience, we have taken inspiration from the way of understanding tragedy in the tradition of the classical Greek philosophers, who saw in tragedy a powerful tool that could be used to purge noxious tendencies in individuals. By using the tragedy category of drama as a format for communicating the theme, the implementation of the interactive emergent narrative enables the participants to encounter different dramatic events, each varying in tension. Boal’s investigation of Aristotle’s classic tragic system (Boal, 2000) was the main inspirational source for this particular work.

In tragedy, actions carried out by the protagonist will be based on his rational soul (the intellect), and his goal will be the supreme good leading to happiness (Boal, 2000). In this view, the protagonist becomes involved in an activity, has a goal, and will be rewarded. This can be analogous to the characteristics of the participant’s engagement in a game or interactive application, where engagement can occur when the participant is motivated by his own goals to explore the settings and the storyline. Through such motivation, participants then want to continue their activity by advancing through the process to reach the goal, which for example, could be the completion or closure of the story. Having traversed the experience, they can achieve a reward, which, for example, could be the satisfaction of acquiring an understanding of the situation—and the catharsis that can be experienced by such understanding. The essence of tragedy is the process of correction or purification of human actions stimulated by such a cathartic process.

In linear narrative structures, the subject is a passive observer. As a result, the audience is limited to experience only reactions without being able to carry out any actions. The

audience is thus limited to following a predetermined path assigned by the author, in which case they might become disinterested or be less motivated in some of the subparts of the theme. Hence, reaction can be frustrating and unrewarding in some instances. Experiencing action, though, is usually rewarding, as even a bad action can help in learning from mistakes made.

We think that computer games offer great potential for the implementation of the original intentions of tragedy. The interactive affordances of video games offer outstanding possibilities for providing participants with the ability to carry out actions in a predetermined context. Consequently, a key ethical issue is what sort of content should be implemented with such a powerful emulating tool.

According to Aristotle, the process of practicing meaningful actions for character development must begin in childhood (Boal, 2000). To bring the participant to a world where he is able to carry out meaningful actions, the art of tragedy and its main themes can be merged with human computer activity. In this way, the participant can enter the fictional world, taking over the role of the tragic hero, which will enable him or her to take the actions necessary in an attempt to correct errors that take place in the visited world. The actions executed will have direct impact and influence over the overall outcome of the story, and in turn the character of the participant.

### **Interactive Drama**

In order to present the participants with an experience supporting the communication of a relevant theme, and to provide her/him with the ability to carry out meaningful actions in an interactive experience with serious content, we chose to implement the first person victim experience (FPVE) application as an interactive drama. Choosing the term “interactive drama” is based on the fact that drama is to act, and as a method of narration it conveys

stories through actions performed by actors (mimetic or dramatic narration) (Ryan, 2001). In the case of the theme implemented in our model, which is communicated based on a narrative structure resembling tragedy, the emphasis is therefore on action, since if there is no action there is no tragedy, as claimed by Aristotle (350 B.C.E.). Tragedy and drama share this emphasis on action, so as a consequence the participant will enact the role of tragic hero by taking the necessary actions to avoid the aggressive behavior of others.

We would thus argue that in an interactive drama the participant has to perform actions to experience the theme, by interacting *in* the story as opposed to interactive narrative or storytelling, where the participant interacts *with* the story.

Usually, in many games and interactive experiences, the protagonist being controlled by the participant overcomes the challenges. However, our attempt in the present work is to invert this concept in such a way that instead of providing the participant with the abilities to attack others (as in typical first person shooter games), the participant will take the role of being a victim under attack. The main objective will be to save him- or herself, as well as the lives of others. In this way, we hope to provide the participant with the opportunity of emulating virtuous actions such as saving or helping others by peaceful means, instead of simply enacting violent actions.

The participants should thus become stimulated to become acquainted with the social and ethical issues related to the experiences of being a war victim and, by understanding the theme (provided by the authors), engage in the experience itself. Our implementation intends to provide the participants with the opportunity to enact the drama actively, and the more they become engaged, the more they will feel stimulated and engaged with the theme.

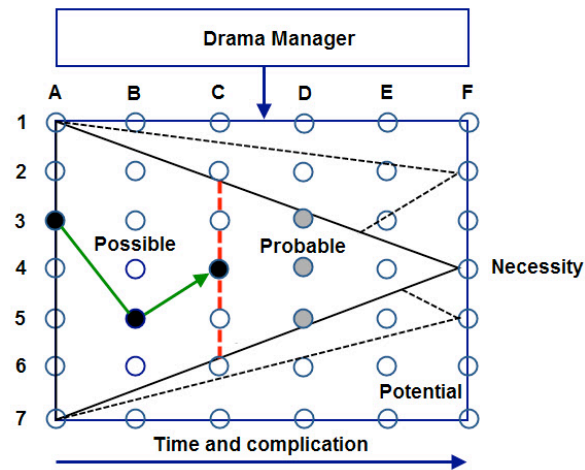
### **The Interactive Dramatic Experience Model**

In order to communicate the theme, events encountered by the participants are

organized by our Interactive Dramatic Experience Model (IDEM) (Schoenau-Fog, Bruni, Khalil, & Faizi, 2010), inspired by theoretical work concerning the “flying wedge”, as conceived by Laurel (1993). The model is derived and based upon the Aristotelian point of view, which states that the potential of a play is formulated by a set of possibilities set out by the playwright. As the enactment progresses, the number of possibilities decreases radically. In addition, the performed enactments eliminate some possibilities and make others more probable.

These events lead to the final moment, or peak, of the action. At this point, all competing lines of probability are discarded except one line, which becomes the outcome. At this precise moment, probability becomes necessity. This process, which can be described as ‘dramatic potential’, is formulated into possibility, probability, and necessity over time. According to Laurel (1993), action in human computer activity can be defined as having a beginning, middle, and an end. The beginning is made up of incidents that are part of the whole; therefore, playing a computer game from the beginning until the ends constitutes a whole action.

In the implementation process, the original model was modified and adapted. Forty-two events were postulated, as spatially and chronologically represented in *Figure 1*, which shows time elapsing from left to right and circles representing potential events. A drama manager was implemented in order to trigger specific events based on the participants’ choices and actions. The events are distributed in seven numeric rows (1-7) and six columns of scenes (A-F).



*Figure 1.* The flying wedge eliminates available possible events to a few probable ones, and finally to a single necessity (the climax). (Schoenau-Fog, Bruni, Khalil, & Faizi, 2010)

The green arrow represents the constructed story path, which is dependent on the chosen or executed actions made by the participant, and the shape of the story path is determined by the triggered event. Black circles represent the triggered events in scenes A, B and C. Assuming we always keep the participant in the middle of the wedge, the decrement of the events is controlled by the gradual sharpening of the wedge and by the drama manager (the grey circles). The dashed vertical line represents the threshold that separates many possible events from fewer probable events, as well as an inciting incident where the events begin to rise in tension to reach the highest level of the climax.

The overall story starts and ends in a specific spatially defined place, and the direction and functionality of the wedge are applied spatially to the 3D world—assuring increasing necessity. It is not possible for the participant to predict the assigned events and the availability of the interaction inside the wedge, because it is dynamically triggered by the drama manager based on factors related to the coherence of time and space in relation to the participant's spatial navigation and/or executed actions.



### **The Experience**

The main objective of the FPVE is to prompt a sense of empathy in the participant that will eventually stimulate his or her curiosity to search deeper into social and ethical issues in general and, particularly in our example, issues related to the suffering of people in war zones. To communicate the experience of being a victim, the events, locations, and the overall theme provided in the experience depict a war zone situation, and the narrative includes a tragic ending aimed at evoking the maximum level of catharsis.

Because the FPVE attempts to invert traditional FPSs that are mainly motivating the player by the actions of shooting, killing, and demolishing, the role of attacking is switched around. The participants thus experience how it feels to be on the ground during an airstrike and invasion by a foreign power, where they are in immediate danger and under constant attack.

The application and narrative circumstances will not afford them the opportunity to enact or participate in violent actions, but will, on the contrary, lead them to experience violence committed by an aggressor. The concept of the FPVE encourages the participant to find other solutions to problematic situations rather than shooting, using violence, or retaliating, thus bringing the gamer as close as possible to a more realistic experience and perception of the sufferings of other people in a war zone.

The usual game-defined goals in the FPS genre are replaced by engaging the participant with self-defined goals. The participant will be engaged in different dramatic events by these self-defined goals, and the way the participant interprets the events will influence these decisions, which in turn will create new goals in this fictional world. The main objectives might, for example, be to save his or her own life and the lives of loved ones. Going through the entire experience while being engaged by these objectives, the participant will be able to

interpret the surroundings and different events in such a way that he or she constructs an emergent narrative in his or her own imagination.

Engagement is a central element of the project, as it is essential to engage participants with dramatic events in order to keep them participating in the experience in such a way that, through their involvement in the story, they will become acquainted with the social and ethical issues implicit in the theme. Contrary to the usual triggers of engagement, the experience will not provide any specific application-defined (intrinsic) goals initially; however, events in the entire experience are causally related to each other, as the actions executed by the participants influence the availability of other probable actions. For the participants to become engaged, self-defined (extrinsic) goals are triggered mostly by stimulating their curiosity to find the causes of the different situations they are experiencing.

The application is built using the game engine Unity 3D, which makes it possible to create a high-level graphical 3D environment. The narrative elements and events are located in both time and space, organized by the IDEM and presented in the form of audio, video, and text. The videos include recordings of real actors, and are inserted in to the virtual world as video textures on planes in 3D space. The main point of using videos is to integrate footage of real characters acting in order to ensure better and more detailed expression, which would require far more resources to implement using customary 3D modeled and animated characters. Having videos of real actors in the virtual world is a design choice aimed at assuring natural facial expressions and body language, both of which play an important role in relation to showing emotions such as fear, pity, and empathy.

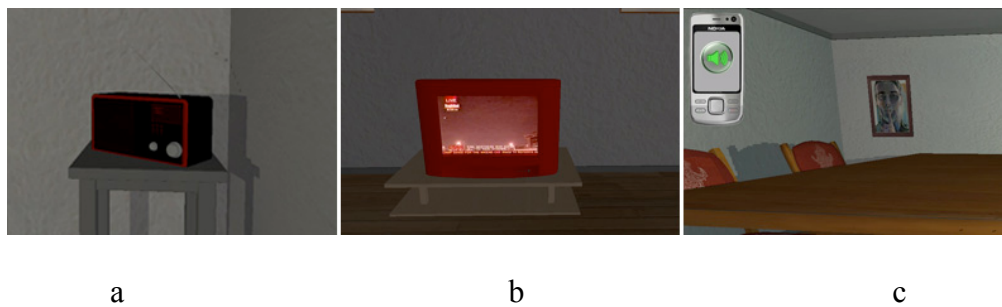
### **Being a First Person Victim**

In order to communicate the war scenario, various events in the IDEM are triggered by the participant's navigation through the 3D world. In the following paragraphs, we will

describe some of these events as examples of how the experience is conveyed.

In the first scene, the participant is located at home in an apartment (*Figure 2a.* depicts interaction with a radio). When within a specific distance of the radio, its color turns to red, illustrating the affordability of the object, and when the participant clicks to turn on the radio, the news of an eventual attack is being announced.

In *Figure 2b*, the participant is interacting with the TV and absorbing information about the very first airstrikes that are hitting the city, while simultaneously a declaration of war is being broadcast. The image in *Figure 2c* shows another possibility for interaction, which is triggered automatically after a given time threshold in which the participant has not actively interacted with the visual elements intended to alert him or her of the impending danger. Intended for a more passive kind of participant, this kind of affordance is triggered after a specific amount of time spent in the first scene without interacting with any object. In this case, the participant receives a phone call from a worried mother, encouraging the participant to leave the town.



*Figure 2.* A radio, TV, and mobile phone are used to convey information in the first scene

*Figure 3* shows a number of other different possible events for the first three scenes. The first event (*Figure 3a*) depicts an explosion destroying the apartment. When the participant leaves the home in *Figure 3b* and hears the sound of military airplanes flying above the city, striking one of the residential buildings and causing a devastating blast, the

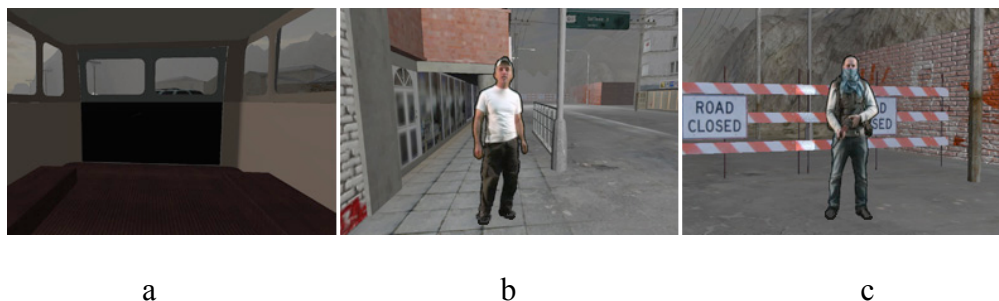
participant becomes aware of the danger that civilians face in such circumstances. In the third scene (*Figure 3c*) the participant is meeting a local person from the neighborhood that needs help.



*Figure 3.* Explosions in the neighborhood and a woman in distress

In *Figure 4a* the participant is situated inside a van while the driver attempts to avoid gunmen by finding a shorter way through the mountains to the safest side of town. *Figure 4b* shows possible interaction with a local neighbor, who gives information about the arrest of the participant's brother; the neighbor describes how serious and dangerous the situation has become, while encouraging the participant to leave town.

*Figure 4c* depicts one of the gunmen blocking the road, preventing exit and threatening local people with death if they attempt to leave the town.



*Figure 4.* The participant's point of view from inside a van, and encounters with various characters.

In *Figure 5a* the participant is passing by and witnessing a neighbor being hanged by the gunmen after a failed attempt to escape from the town. To assure coherent causality, triggering this event will only occur if the participant met the neighbor earlier in the story (see *Figure 4b*).

*Figure 5b* depicts a possible story ending at the level of climax, in which the participant witnesses the arrest of the brother, who is then interrogated by one of the gunmen after tying him to a chair and blindfolding him. The gunman then demands an amount of money for the participant's brother to be released.

Finally, *Figure 5c* shows another possible ending where the participant watches hopelessly while a girl (possibly a sister, girlfriend, or friend) is being tortured. As the events are causally related to each other, the two story endings depend on the participant's choice and interaction in the previous scenes.



*Figure 5.* An event from the fourth scene, wherein the neighbor is hanged, and two different story endings, or climaxes (b & c).

### Evaluation

To assess the concept of the FPVE and its ability to communicate a theme, evaluation through a series of qualitative interviews (n=11) and a focus group interview (n=3) was conducted. Furthermore, a quantitative test was also conducted through a questionnaire (n=19, frequent gamers).

Overall, the results indicated that the participants understood the theme through their experiences, and they were motivated and curious to explore the environment, despite the tragic content. In particular, they were eager to find out the final outcome of the story. Moreover, they demonstrated an interest in trying the experience more than once, and were motivated to try such a type of experience again. The participants were also willing to be engaged in the dramatic encounters, which attached them empathically to other characters in the environment. To demonstrate some of the responses from the evaluation, the following sections present various statements concerning the participants' experiences.

### **Exploration and Curiosity**

The participants' willingness to explore the environment can be exemplified by the sentence: "*At the end, I wanted to get all my questions answered. And [to] see what else [is there], to further explore the town*". Another respondent stated, "*I think I was not done exploring*" and "*The map seemed very big, and I wanted to explore; I felt that I was on a path and I hadn't reach it yet to see where it ended*". Furthermore, another participant expressed his interest in the experience from a different angle, as he was interested in the experience "*not for entertaining*" but "*to understand a given situation...learn about how things practically work*" in the environment. Yet another respondent was interested in the form of the experience: "*the whole theme was very nice, the whole scenery, and people with guns, very interesting war scenario*". These statements indicate that the participants were able to identify the environment spatially, as well as the overall context of a war zone situation. The experience also triggered curiosity, as indicated by one respondent who stated, "*I was interested to see all the effects and the landscapes*", which was supported by yet another statement: "*I had to discover what it was all about*" and "*there was something going on, and I wanted to figure out what it was*".

## Emotions

A number of emotions were also encountered. For example, seven out of ten participants expressed their frustration, mostly because they were unable to save or help others when needed. For example, a test subject stated, *“I got frustrated that I couldn’t save the girl and the guy hanged out there; I was helpless, I couldn’t do anything”*. This limitation can also be seen as a realistic element in the communication of the theme, as an unarmed victim of war has very few options to alter the course of a situation.

## Understanding the communication

Regarding the participants’ understanding of the theme and awareness of the overall situation, one of the test subjects reflected on his knowledge by stating that he had *“experienced a start of a war”*. Moreover, a test subject described the experience as a *“sort of unique experience—it is a different take on war in games, because you take such a completely different perspective”*. Another respondent explained the theme in more detail: *“I couldn’t say what country I was in, but it was a war torn country... It was a suppressed city. They were suppressed by probably a foreign government”*.

Violent characters were also distinguished from victims, as exemplified by one test subject describing non-armed characters as *“victims... in occupying scenery”*. Another expressed the overall situation as *“an occupied country... civil war, terrorists, and soldiers who restricted your access”*.

Since the participants in the experience were divested of any kind of aggressive tools, they attempted to find alternative solutions to shooting at the aggressors blindly. Such an attempt can be interestingly characterized as a non-violent solution. For example, some test subjects tried to get in contact with the civilian characters as an attempt to understand what was going on. A typical response amongst participants can be highlighted by the following: *“I*

*was hoping that I would have gotten to talk to more of them. Or get more information out of them...[to find out] who were the suppressers”.*

### **Social and ethical issues**

Regarding the aspects of social and ethical issues, all the test subjects expressed their willingness and tendency to aid others that needed or called for help. To describe this motivation, a test subject stated *“There was a guy hanging, I tried to get in, and interact to get him down”*, while another respondent added, *“I wanted to help but I couldn’t enter the building. Because you can hear someone screaming there as well, you wanted to go inside to see if you could help people, but it was not possible”*.

### **Discussion**

The test and evaluation demonstrate that the IDEM and the current implementation of the FPVE bring participants close to events that involve the suffering of others, and make it possible to create a feeling of empathy. The majority of the participants had high tendencies to attempt to help other characters, especially those who were being tortured. In other words, they were often willing to act altruistically out of compassion for others. Additionally, the participants’ actions were influenced by not having the power to save their fellow man, and their actions were based on finding solutions or possibilities different to shooting or using violent actions, such as communicating directly with civilian characters to figure out what was going on and to obtain more information about why the oppressors were behaving so aggressively.

The responses concerning social and ethical issues indicate that inverting the traditional concept of an FPS game may potentially encourage non-violent behaviors as a solution to overcoming problematic and inherently violent situations.



### **Using violence in games constructively**

It is necessary to mention that not all researchers are in agreement about the linkage between violent videogames and the stimulation of aggressive personalities or behaviors. For example, Ferguson (2010) disagrees with the claims prevailing in the literature, claiming that communities in general react emotionally rather than objectively to the idea that violent video games may have positive impacts. He goes on to posit that video games can be effective in communicating information and not in transmitting moral beliefs, as information can be transferred by playing a violent video game and an aggressive personality trait cannot (Ferguson, 2010).

Since the violence is encountered as a victim and not as an aggressor in the FPVE, it could have a positive impact on the effectiveness of the communication of the theme. Because the roles are inverted, it may thus become possible, if not to transmit, at least to prompt a reflection on moral and ethical issues.

Other researchers place emphasis on the context in which violent media is viewed. For example, according to Huesmann and Miller (1994), the media violence effect can be reduced through discussing violent episodes, especially with children, by explaining the undesirability of the violent solutions and proposing non-violent alternatives to problems. This can be done by the process of socialization, which involves helping children to regulate and control their behavior by teaching and encouraging acceptable behavior and discouraging unacceptable alternatives. Parents take a major role in the socialization process as well as peers, teachers, media, TV, and video games.

In the case of the FPVE, the context is also essential. Due to its strong impact on some participants, the intention is to use the application in educational contexts, where ethical issues encountered can be discussed after the experience. Moreover, the context can play

another role; for example, by acquainting the participant with the negative impacts and undesirable consequences of war, the context convinces the participants indirectly that aggression and violent behavior are not the ultimate or the best solutions to problems.

The FPVE does not function as a traditional game concept (due to the goal structure and limited interaction (only navigation and activation)). However, it enhances the participant's drive, engagement and freedom of interaction by creating the possibility of participant-defined (extrinsic) goals, as opposed to application-defined (intrinsic) goals, to motivate and drive the participant through the experience in the dramatic action.

It can be said that some of our hypothesis can be validated. Applying and adapting the tragic system to interactive applications has the potential to involve participants more with the content as an active participant in the fictional world, rather than being a passive observer from outside that world. As a result, this could lead to the participant becoming more acquainted with social and ethical issues. Hence, utilizing interactivity in a mediated theme predetermined by the author can play an important role in conveying useful messages to participants. Being able to carry out meaningful actions consistently through tragic content that leads to catharsis, the concept provided by the First Person Victim interactive dramatic experience can be used to discourage noxious tendencies in individuals by communicating to them socially and ethically important issues.

### **Conclusion**

Using tragedy and applying the elements of drama to interactive applications can play an important role in conveying useful or socially and ethically related themes. In our example, the participants are able to interact, receive information from different characters, and get involved in different causally related events, which, in this case, enable them to experience firsthand what it is like to be a victim of war. Using the IDEM model as a communication tool

has great potential for delivering themes that acquaint participants with important social and ethical issues, foster understanding between cultures, and enhance the desire and willingness to carry out altruistic actions. We see this normative aspect as a contribution to a not yet well-defined field of “socially responsible interactive digital media”.

Employing the general concept of the Interactive Dramatic Experience Model, undertaking meaningful and altruistic actions can be further utilized in the design of interactive dramatic experiences concerned with other socially relevant themes. The overall outcome and evaluation of the implementation of the FPV scenario based on the IDEM provided promising results, which can be used as a foundation for future applications.

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