

## Photo Shooting – Too Much Reality in Mixed Reality?

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Can and should Mixed Reality (MR) be applied to all kinds of applications? Are there cases that are not suited for tangible interaction, e. g. violent games? Violence in games is certainly a technically simple, easy to comprehend, and conceptually effective way to foster player interaction, but how far are we willing to go with tangible interfaces? The game *Photo Shooting* plays with the analogy between shooting a photograph and shooting a gun. It is a MR game for two players. Both players try to shoot objects of a certain color with their *gun cams*. The first player to score a hit wins. While the game's title, the graphics and the action may suggest violence, in the end, all that is done is taking pictures. The game's aim is to spark a discussion between players about the role of the mimetic representation of violence in games and may serve as possible base for an empirical evaluation. Based on Huizinga's game theory, some arguments are shortly outlined here.

MR does not erase the line between play and non-play, nor do live action role playing games, for example. The boundary of the game has never been merely an objective, but always also, more importantly, a mental distinction; in this sense there is no fundamental difference between *Doom* (1993) and Dodgeball, they only use a different sensual representation, and both are just as real as *Photo Shooting* is.



Figure 1: Players playing the game (left), game screen, and results screen

Both interpretarory models of violence in games seem viable: Games have conceptually no bearing on the everyday world, so players can and probably should do everything they want to enjoy themselves inside of games. At the same time, since games do not rely on reality to function, it is possible, although not so much fun, to refrain from using (e. g. violent) references to the ordinary world.

Obviously, there exists a certain attraction or thrill in playing with actions and objects of

the ordinary world, an 'inexorable drive towards real-time photo-realism' [Mat02, p. 19], that can be considered quite irrational from the perspective of the game. Many games like chess, football, and card-games turned (meanwhile) actually completely abstract and do not rely anymore on any references to reality to function or to create meaning. At the same time, there are (still) games, that rely on a naturalistic representation, including many first-person shooters; but even in this genre not all players value only the (visual) representation – competition-oriented players still play *Counter-Strike* (1999), although the graphics are really getting old by now. Games appear to have the tendency to free themselves of everything what does not serve them, and this applies to all e. g. graphical or violent embellishments. The perspectives mentioned above do not contradict each other, but only describe different phases in the development of play: Players can do and play with everything they like and sooner or later games will increasingly reduce the initial references to the ordinary world.

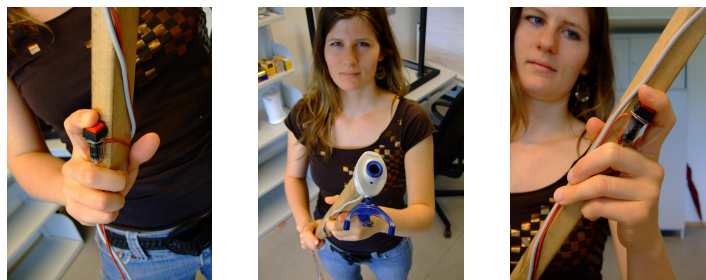


Figure 2: *Gun cam*, with fire button (left) and reload button (right)

According to the argumentation presented here, MR can and should be used for all possible applications, even violent games. The differentiating line between games and the ordinary world has always been the willing choice and acceptance of a certain perspective by the players and neither been defined by spacial or temporal limitation, nor by the content, nor by the interfaces, and this distinction 'is nowhere close to being completely eradicated' [SZ04, p. 579].

*Photo Shooting* will be available for public play at the GI workshop *Theorie- und Praxiswerkstatt Be-greifbare Interaktion* in Lübeck (Germany) in September 2008.

## References

- [Mat02] Michael Mateas. *Interactive Drama, Art and Artificial Intelligence*. PhD thesis, Carnegie Mellon Univ., Pittsburgh, 2002.
- [SZ04] Katie Salen and Eric Zimmerman. *Rules of Play. Game Design Fundamentals*. Cambridge: MIT Press, 2004.