*Wi*PONG: A MASSIVE MULTIPLAYER COLLOCATED GAME

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Keywords
Massive multiplayer collocated games
Pong
Collocated interaction
Game design

*Wi*Pong is an extended multiplayer version of the iconic video game by Atari. *Wi*Pong is a game played with smartphones/tablets by an *n* number of players simultaneously in a defined physical space. A server provides the access to the game which can be played only within the limits of the Wi-Fi signal and the server capacity of the connected devices. All the players have to discover the limits of this virtual landscape and keep themselves in the game by following this special rule. The aim is to push the boundaries of collocated multiplayer games by taking the most classic of the arcade as an example. The players connect their own device to the central system and in the presence of at least one partner they can start the game. The gameplay reproduces the classic *Pong* game with the difference of having infinite extensions of the game field on the opponents' devices. Each player controls a paddle visible on the half of the *Pong* field within his/her screen. The ball, after being hit by the paddle, disappears from the top of the screen to reach the opponents' fields. The system redirects the ball to one of the other fields of opponents available. The number of fields is determined by the number of the players ranging from two to *n*. Where the ball will go to and which direction it will come from is the challenge of the game for the players.

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1 INTRODUCTION

Tennis for Two (1958) by William Higinbotham is the first video game in history that reproduced the mechanics of tennis. *Pong* (1972) by Atari inherited this tradition by becoming the first widely distributed commercial video game: a two players' game that features two paddles and a ball. In the original edition of the Atari cabinet the gameplay was conceived as strictly for two players and there was not an option for a single player mode. Many alternative editions, clones, and evolutions have been developed after the series created by the first *Pong*. Among them, *Elimination* (1974) from Kee Games, later distributed by Atari as *Quadrapong*, was offering a four simultaneous player match in a cocktail table cabinet with a horizontal screen. As well as *Pong*, *Elimination* is a strictly multiplayer game with a minimum number of participants of two and a maximum of four. In the history of both cabinet and home console video games, the maximum number of simultaneous players has for some time been four. *Wi*Pong is yet another experimental variation of the Atari *Pong* as was the work of Till Ballendaat with *Proxemic Pong* (Greenberg *et al.* 2011) and the forty variations proposed by Cardoso and Carvalhais (2013). The peculiarity of the *Wi*Pong is the potential to offer an infinite number of simultaneous players within a collocated environment.

2 COLLOCATED GAMING

The limit of collocated players has been challenged by Nintendo many times with Joy Pair, Nintendo 64, Nintendo Wii and Gameboy (through Game Link Cable) consoles. While most of the game developers focused on Massive Multiplayer Online Games (MMOGs), Nintendo extended the number of players with wireless connections, adapters and cords up to the limit of 8 simultaneous players and up to 16 players in the case of turn-based games. The innovative aspect of online gaming conquered, next to the developers and gamers, the attention of academics in a way that a vast number of literature on MMOGs and Massive Multiplayer Online Role Playing Games (MMORPGs) have been produced. The social relation patterns emerging in collocated gaming are inherently different than the relations established in MOOGs and MMORPGs. *Wi*Pong aims to position itself between massive multiplayer collocated gaming and massive multiplayer online gaming.

3 *Wi*PONG

*Wi*Pong aims to reflect upon collocated social interaction patterns with a large number of players. As an alternative to the online communities and the alone togetherness (Ducheneaut *et al.* 2006) of MMOGs, *Wi*Pong is an experiment that can be defined as a Massive Multiplayer Collocated Game (MMCOG).

*Wi*Pong is structured as a bring-your-own-device system. The server is a Raspberry Pi; it is a dedicated web server that works as a hotspot. The Wi-Fi channel provides access exclusively to the game. The game is compatible with the majority of mobile devices (such as smartphones and tablets) through their browser. Each player, once connected to the system, is brought directly into the game, where the paddle is controlled by touchscreen. The difficulty of the game is enhanced by two factors: 1) The players do not see how the ball is hit by the other players' paddle and so do not know which direction the ball comes from; 2) The players do not know if the system directs the ball to their field or not. The scoring system rewards the player by giving one point for a hit, two points for a hit and a won score (if the ball beats the opponent), and takes away two points for a missed hit. When the player decides to exit the game, he/she has the opportunity to save his/her name in the scoreboard as in the classic arcade games.

> Soon gamers will be the anomaly. If we're very fortunate, they'll disappear altogether. Instead we'll just find people, ordinary people of all sorts. And sometimes those people will play videogames. And it won't be a big deal, at all. (Bogost 2011)

CITED ARTIFACTS

Elimination aka Quadrapong, Kee Games, 1974.
Gameboy, Nintendo, 1989.
Joy pair, HAL Laboratory, 1985.
Nintendo 64, Nintendo, 1996.
Pong, Atari, 1972.
Tennis for two, William Higinbotham, 1958.
Wii, Nintendo, 2006.

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