

MMORPG Games as a Way of Coping During the Pandemic: A Study on World of Warcraft

Rengin Gürel, Istanbul Technical University, Turkey

The Barcelona Conference on Arts, Media & Culture 2021
Official Conference Proceedings

Abstract

Negative effects of coronavirus expand from physical to mental health, thus finding methods for coping and wellness has become crucial. The act of play is a way to improve one's wellness and it has been discussed as an intrinsic human activity nested in the culture. During quarantines "play" was in the virtual form more than ever. These games, including MMORPGs (massively multiplayer online role-playing games), offer an achievement-based social experience. Before the pandemic, these games have been discussed in terms of their negative aspects such as being an escape from reality, an unhealthy coping mechanism, and an addiction. Contrarily, some researchers consider this activity as a facilitator of social interaction with existing or new social networks. In this study, World of Warcraft (WoW) is explored as a setting through an ethnographic approach to understand how the covid pandemic affected players and their experience in the virtual world. The paper focuses on the levelling stage of the game and fieldwork data derived through participant observation and casual conversations with players. Collected data suggests playing WoW has become a method for coping against the pandemic. This research examines Man, The Player in World of Warcraft. Understanding a virtual world could unfold ways to build resilience in the "real world". The paper argues that playing WoW could become a tool for better coping with the pandemic through its competition, chance, and simulation elements that create achievement-based, social, and nostalgic motivators in the game.

Keywords: MMORPG, Play, Emotional Coping, Ethnography

iafor

The International Academic Forum
www.iafor.org

Introduction

Coronavirus pandemic has affected people negatively on a physical and mental level, and World Health Organization (2021a) warns people against the main effects of COVID-19 pandemic on mental health: higher levels of stress and anxiety. Moreover, The WHO (2021a) is concerned about the effects of quarantine and its impact on people's everyday routines that could lead to increased levels of loneliness, depression and, more. Consequently, coping methods and mental wellness have become more important. Play is an intrinsic human activity that is closely related with the culture (Huizinga, 1971) and it is meaningful in adult life since it enhances the developmental process throughout the lifetime, and contributes to mental wellness (Whitaker & Tonkin, 2016). Since the WHO (2021b) advises to stay home and self-isolate during the pandemic, countries took serious precautions including quarantines and social distancing regulations, the act of play has been in the virtual form more than ever.

In this study, playing in a virtual world (World of Warcraft) is explored as a way of coping during the pandemic. WoW (short for World of Warcraft) is a massively multiplayer role-playing game (in short MMORPG) released by Blizzard Entertainment. This paper discusses WoW as a tool for coping with the pandemic through its competition, chance, and simulation elements that create achievement-based, social, and nostalgic motivators in the game.

Human, Virtual Play and the Pandemic

Play, whether it is in a physical or virtual form, is an intrinsic human activity. Huizinga (1971) defines the act of play as follows:

... play is a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is 'different' from 'ordinary life'. Thus defined, the concept seemed capable of embracing everything we call 'play' in animals, children and grown-ups: games of strength and skill, inventing games, guessing games, games of chance, exhibitions and performances of all kinds. We ventured to call the category 'play' one of the most fundamental in life." (as cited in Caillois, 1961, p. 177)

Play is regarded as a fundamental aspect of life and can be in close relation with people's well-being. On the other hand, play in a physical sense is not the only type of play that influences wellbeing. Playing in digital mediums such as video games and virtual worlds is also shown to be improving wellness. Snodgrass et al. (2013) assert:

Our research shares much in common with previous studies of problematic Internet use, but shows how attention to shared cultural patterns of thought and practice can refine our understanding of players' abilities to immerse themselves healthfully, rather than problematically, in WoW. (p. 253).

Playing video games can have a positive impact on players' well-being. In their review paper, Johnson et al. (2013) find that video games have a positive effect on young people's wellness, and "existing research suggests that video games contribute to young people's emotional, social and psychological wellbeing." (p. 5). Although, research shows the excessive play of video games can display "mild increases in problematic behaviours" (Allahverdipour et al., 2010). Regarding how often and when the games are played, research finds that "in term of the impact of videogame play on wellbeing, what you play and how

much you play are not as important as who you play with and whether you experience relatedness and flow while playing” (Vella et al., 2013, p. 102).

Coping consists of the efforts to deal with a threatening or harmful situation, either to remove the threat or to diminish how it can have a big impact on the person (Carver, 2010). Video games are also effective in terms of players’ emotional stability and coping. On the other hand, “moderate video gameplay can contribute to positive emotions” (Przybylski et al. 2009) and emotional stability (Przybylski et al., 2011). Moreover, playing video games moderately may provide a healthy beginning of “socialisation, relaxation, and coping”, and “combating stress” (Wack & Tentelett-Dunn, 2009; Snodgrass, Lacy, Dengah, & Fagan; 2011; Snodgrass, Lacy, Dengah, Fagan & Most 2011).

Other than its effect on wellbeing, video games are shown to influence the resilience of players. Tichon & Mavin (2016) suggest that video games that encourage players to constantly defeat hardships, by failing and trying again, could influence the behaviour outside of the game (p.2). Moreover, researchers argue, video games could be training their players to have better resilience, since its approach to increasing difficulty step by step is similar to computer-based resilience training (Driskell & Johnston, 1998, as cited in Tichon & Mavin, 2016).

Various video games include “virtual worlds” defined as:

... we describe virtual worlds as possessing the following characteristics. First, they are places and have a sense of worldness. They ... offer an object-rich environment that participants can traverse and with which they can interact. Second, ... (they) are multi-user in nature; they exist as shared social environments with synchronous communication and interaction. ... participants may engage in solitary activities within them, virtual worlds thrive through co-inhabitation with others. Third, they are persistent: they continue to exist in some form even as participants log off. They can thus change while any one participant is absent, based on the platform itself or the activities of other participants. Fourth, virtual worlds allow participants to embody themselves, usually as avatars ... such that they can explore and participate in the virtual world. (Boellstorff et al., 2012, p. 7)

Games in the form of virtual worlds are important for research since they create a setting and a community, governed by its social traits. Therefore, MMORPGs become a research topic by standing out with their socialising game mechanics, communities, and immersive environments.

Existing research on these games focus on both negative and positive impacts of gaming in virtual worlds. Research on these games focuses on recognizing the negative aspects of MMORPG game-play and researchers discuss it as an escape from reality (Yee, 2006b; Deleuze et al., 2019; Kirby et al, 2014), an unhealthy coping mechanism (Blasi, 2019), and addiction (Hussain & Griffiths, 2009; Kirby et al, 2014). On the other hand, the positive effects of online games are shown through research. MMORPGs and its gameplay as a facilitator of social interaction with existing and new social networks (Nardi & Harris, 2006).

Methodology

Since games are introduced and their communities are formed, researchers became interested in them as virtual settings. Boelstroff et al. (2012) discussed a close relationship between virtual worlds and ethnography in their handbook, guiding a way for future studies in this

area. In this study, the term “virtual world” (Nardi, 2010) will be used to refer to settings like World of Warcraft. Nardi (2010) claims these settings have participants with simulated characters that can travel in tri-dimensional space and they sustain communication with other people when obtaining various digital objects. Virtual worlds are rich in terms of social interactions and actions they provide for the “players”. Therefore, these worlds are suitable settings for ethnographic research.

In the context of this paper, the setting of WoW is explored as a way of coping during the pandemic. Ethnographic methods allow a deeper understanding of social structures and behaviours. Even when the setting is virtual, various researchers showed that studies of “virtual ethnography” are possible and valuable (Hine, 2000; Boellstorff et al., 2012). This study is an ethnographic account of the online multiplayer game World of Warcraft. Other than being a game, this platform is a world with a community with its social constructs.

Ethnography is “thick description” (Geertz, 1973), meaning that it is layered. Hence this study aims to unfold the layers within World of Warcraft communities. To become a participant-observer, a researcher in WoW needs to be a “player”, to understand the game mechanics and community, also to become a participant. In this paper data collection was done through participant observation, in-site, and our-site conversations with players. All of the guild and player names are changed to keep informants anonymous.

The Study

Virtual worlds and communities have been a part of our lives for decades now and they have been acknowledged with their potential for scientific (Bainbridge, 2007) and ethnographic research (Boelstroff et al., 2012). Many online games include the concept of “war” in their worlds, such as Everquest, Guild Wars, and World of Warcraft. World of Warcraft, one of the rich virtual worlds of today, has been around since 2004 and it is still very active. It is an online massively multiplayer role-playing game (MMORPG) launched by Blizzard Entertainment. Millions of people can be online and be involved in massively multiplayer games. World of Warcraft is one of the pieces of the Warcraft franchise which consists of Warcraft: Orcs & Humans, Warcraft 2: Tides of Darkness, and Warcraft 3: Reign of Chaos (The Editors of Encyclopaedia Britannica, 2021). A lot of old players come and play again multiple times, and explore this world with a rich story (lore, as gaming communities call it) filled with magic, war, and survival. World of Warcraft has created a long-lasting community by having its story and social interactions at the core of its design. Nardi & Harris (2006) argues: “The design of World of Warcraft and the player culture that has developed within the game provide an innovative space in which strangers collaborate and can become friends.” (p.158). Virtual worlds like WoW have a strong impact on their players since taking part in them could “positively contribute towards an individual’s identity realisation, sense of community, privacy, and belonging” (Ramshaw, 2020, p. 23). Therefore, WoW becomes a rich setting for research with its social aspects.

Research on MMORPGs show that these games affect their players in both positive and negative ways. The study conducted by Hussain and Griffiths (2009) that revealed that players show playing MMORPGs as a cause of their issues. The study also shows that playing MMORPGs is a way to relieve feelings of negativity (Hussain & Griffiths, 2009). In terms of the social aspects that affect MMORPG players, Weissman (2017) examined how the players of MMORPGs relate to their real and virtual worlds on a social level and he highlights the feeling of “connectedness” that occurs in MMORPGs. His study indicates that

the players who look for collaborative gameplay will feel more connected to others (2017, p. 80) and people felt even more connected when they spent more time in the game (p. 81).

Various researchers studied World of Warcraft in terms of its digital culture, play, and identity; collaborative work and play in the game; race and learning in WoW, coordinated action in the game (Corneliussen & Rettberg, 2008; Sherlock, 2009; Weiss & Tettegah, 2012; Williams & Kirschner, 2012). Bonnie Nardi (2010) approached the game as an ethnographic field and studied the game as an active aesthetic experience and explored the game's cultural logic. Nardi's work (2010) included the addiction aspect, theorycraft, and mods of the game, issues of gender in the game, and comparative studies of WoW culture in China and the United States.



Figure 1: Interface of the Game (World of Warcraft, 2008)

Even though it is only on a monitor, the curated environment of WoW creates a rich involvement with the game and its virtual world through its graphics, sound effects, and ambient music. Its races and stories are inspired by real-life, fiction, Lord of The Rings trilogy (Tolkien, 1954), and the game Dungeons and Dragons (2014). The interface of the game includes the environment (that you can interact with), a chat box to communicate with others through text and emotes (simple animations which work as gestures such as laugh, blow a kiss, bow, wave, cry, etc.), bags to carry objects in the game (potions, food, drinks, weapons, etc.), skill slots, the character window to see the stats (a piece of data that represents attributes of the character) and equipment, a “social” tab to find people to collaborate with and a map to find your way around the game.

The game has two main stages: levelling and endgame. Levelling means simply “levelling up” until the endgame. During the levelling stage players explore the world, complete quests (individually and with groups) and go to dungeons. In the endgame stage, players reach the level cap so they do not worry about levelling anymore, but as some of the players say “this is where it begins”. During this stage players mainly do raids, play PvE (player vs. environment) or PvP (player vs player), do role-playing and more. These two stages of the game differ in terms of the actions they require and the motives and dependencies players

have. Hence, I argue that the behaviour models of the players change according to their stage in the game.

During the levelling stage, players are less dependent on each other. Even though WoW is designed in a way to keep their players interacting for a common goal (completing a quest/dungeon/raid), the levelling stage can be completed for the most part on one's own. Although, it can be done quicker with other players by finishing quests faster, or by getting help from higher levelled players. Some players use their other higher-level characters to "power level" their weaker characters.

During the endgame, players become more dependent on each other due to the game mechanics. During the endgame, raiding (fighting against the strongest opponents in the game's world) is done with parties that range between 5-40 people and it can not be done alone. Moreover, raids are a big part of the endgame and they require lots of interaction to strategize and become coordinated to be successful. Therefore, during the endgame players need to interact with each other more than they need during the levelling stage.

World of Warcraft as Play

Caillois (1961) defines play with the following elements:

1. Free: in which playing is not obligatory; if it were, it would at once lose its attractive and joyous quality as diversion;
2. Separate: circumscribed within limits of space and time, defined and fixed in advance;
3. Uncertain: the course of which cannot be determined, nor the result attained beforehand, and some latitude for innovations being left to the player's initiative;
4. Unproductive: creating neither goods, nor wealth, nor new elements of any kind; and, except for the exchange of property among the players, ending in a situation identical to that prevailing at the beginning of the game;
5. Governed by rules: under conventions that suspend ordinary laws, and for the moment establish new legislation, which alone counts;
6. Make-believe: accompanied by a special awareness of a second reality or of a free unreality, as against real life. (p. 9-10)

MMORPGs, and therefore the World of Warcraft, can be examined with these elements. Firstly, MMORPGs are free: meaning playing is not obligatory. Although during the endgame, raiding becomes a big part of the game and it needs the effort to plan and perform it. Serious players and guilds expect their "guildies" (members of the same guild) to be prepared, on time for the raids to become successful as a group. This aspect makes MMORPG game-play less "free" and puts it in a place between "free" and "obligatory".

Secondly, MMORPGs are even more Separate than the traditional games we play in the physical world, such as chess and checkers. In chess, the players are separated from their daily life and they act according to the game's rules. Similarly, MMORPGs separate their players with their rules. Moreover, in these games the player is separated from the physical world, and s/he "lives" and "acts" in the game's fictional world. These virtual worlds have their races, environments, periods, and players have their fictional names and avatars as representations. Also, players "roleplay", act as their chosen characters during the game-play, which makes them more immersed and the game itself becomes more separate.

Thirdly, being uncertain: how the game and “journey” will play out? it is up to the player and there is room for exploration in MMORPGs. The game you will play will be different if you choose to play with a “paladin” character rather than a “warlock”. Even though the game has a roadmap and tasks to carry out, it is open to exploration and creativity. There is no “one way” of playing it.

Being unproductive is not always the case for MMORPGs since some of these games have economies that became connected to “real life” with the exchange of character profiles for real money.

MMORPGs have worlds built within themselves and these worlds are governed by their own rules. These include rules of the gameplay and unwritten social rules among players. Rules of the gameplay (meaning game mechanics) regulate and guide the player's actions and the game's response to them. Finally, the element of make-believe, is very prominent in these games since they are based on role-playing and players assume the roles of characters in their fictional setting.

Classification of the play made by Caillois (1961) includes: agon, alea, mimicry, and ilinx. This classification can guide a way to understand WoW's game mechanics. It can be argued that MMORPGs have almost all of these categories within themselves.

Firstly, agon, being related to competition, is prominent in the play in WoW. In this game, players compete with the environment meaning Player versus Environment (PvE) and they have competition with other players meaning Player versus Player (PvP). Secondly, alea is related to chance. The element of chance is present in WoW since a roll of the dice decides on awards. Mimicry, is included through the role play aspect of the game. Lastly, Ilinx is not directly related to the experience in WoW. But this is through the use of Augmented Reality and Virtual Reality adaptations.

Interacting in the World of Warcraft

There are various ways that a player can interact with one another in WoW. Most of these types of interactions come from design decisions and the limitations of the game. And some of them are the creative ways players choose to use. In a broad sense, a player can make gestures, use the chat function to “talk” or act in various ways to interact.

Gestures

Similar to a physical setting, the virtual setting of WoW allows its players to make gestures to interact with each other. Essentially, gestures are texts that work as commands to make the avatars move in certain ways. Gestures are called “emote” in MMORPGs, which means expressing emotion (WoW Wiki-archive, 2021).

Emotes are also used to react to people and occurrences. When you finish a group quest or a dungeon with your party (small temporary groups formed to do group quests or dungeons) you might “/cheer”. Or when your mate from the party levels up during a dungeon you might “/cheer for him/her”. When you make a mistake or something bad happens to you, your mate might “/cry”. If there is a competitive player they might “/spit” on you and request a duel.

Types of Chatting

Chat-box is one of the most important elements of the World of Warcraft interface. Through chatting you can “talk”, “yell”, “whisper” to other people, make gestures, recruit party or guild members, ask questions and make jokes. In this section, I try to explain how chatting works in different forms. You can talk, shout, whisper, write to the party chat, guild chat, or world chat. These ways of chatting are about who can read your messages.

Say: When you say things, your words are visible to the close-by people. For example, when you go next to someone and write to the chat “Hello!” they will see that in their chat-box and on the top of your head as a bubble. When you say things to another person who is passing by close to you can also see your message.

Yell: This is when you raise your voice and people further away from you can see your messages. It could be also used in roleplay when you yell something encouraging to your friends.

Whisper: As apparent from the name, whispering involves only two people. It is a form of direct message you can use with everyone online. Contrasting with whispering in real life, this form of chatting does not require you to be close to one another.

Party Chat: When people establish a party (2-5 people, one of them becomes the leader) to complete a quest or dungeon they have their chat and they can talk over there without anyone else seeing what they talk about.

Guild Chat: Similar to party chat, guild chat is for only that guild’s members. And members can communicate from wherever they are. Even when your character dies you can still write to your guild’s chat.

World Chat: World chat is the most comprehensive version of chatting in the game. It has multiple channels that you can join and write down your message. There are four channels and they are used according to the needs of the players such as general, trade, local defence, and looking for groups.

Acts

Other than using emotes and saying things in the chat-box, there are various acts, certain behavioural patterns that occur in the gameplay. Some of these acts include the gestures or chats that I explained earlier. Understanding these behaviours was sometimes easy whereas other times I needed more information about the game and community. When I could not understand why something happened, I asked the players I interacted with or looked to forums for answers. Some of my misunderstandings and confusions were resolved after I reread my fieldnotes. The more I played the more I was able to understand reasons for acts.

World of Warcraft as a Way of Coping

This ethnographic study, started on April 2020 in the beginning of the pandemic, is conducted in World of Warcraft. And fieldwork data was collected through participant observation and conversations with players. Participant observation is described as: “observing the activities of people, the physical characteristics of the social situation, and

what it feels like to be part of the scene” (Spradley, 1980, p.33). In the context of WoW, this translates to “feeling like to be part of the game”. To research this virtual world, the researcher needs to become familiar with it. Figuring out the game, its story, and mechanics is crucial to understanding player behaviour. Moreover, the researcher needs to play the game well to become a part of the game’s community and to make sense of what is happening in the setting.

COVID-19 pandemic affected society in a major way, changing the way we work and socialise. Many countries started regulations for quarantines and made stay-at-home orders. This climate of change has potentially affected the way people “play” as well. Participant observation showed the players of WoW came back to the game after many years of not playing. Pandemic and its stay-at-home orders seem to have encouraged old players to come back to World of Warcraft.

[Guild] [Okm]: btw did you guys play more WoW during covid? i mean i started during lockdowns soo :D

[Guild] [Tnl]: me 2

[Guild] [Obn]: same

[Guild] [Tnl]: havent played like 15 years before that

...

[Guild] [Obn]: not that long ago for me i played panda like 5 years ago

...

[Guild] [Tnl]: well its a way to do something and still be social i guess

When I talked with the members of my guild, they shared that they started the game again after many years due to the pandemic. Their motivations seemed to be around the motivations of “achievement” and “sociability” (Yee, 2006a).

As my fieldnotes suggest, players have a debate around the topic of “playing alone vs. playing with others”. Although the game mechanics of WoW complement a socialising attitude, some of the players choose to play alone.

[Guild] [Okm]: that’s actually why I tried to find people while leveling. Thought it would be more fun to play endgame with the people you know

[Guild] [Mrn]: yeah that’s my opinion also

[Guild] [Mrn]: way more fun to play with other people most of the time

...

[Guild] [Mrn]: you’re playing the wrong game if you want to play alone

[Guild] [Vrs]: no

[Guild] [Vrs]: you can play like you like

[Guild] [Mrn]: sure

[Guild] [Mrn]: but so much of this game is impossible to get to without a group or at least very hard

[Guild] [Mrn]: dungeons raids battlegrounds

...

[Ad] whispers: ... some do enjoy playing alone more (while questing)

[Ad] whispers: And the same goes for people in guilds actually, like you see that some people barely or never speak in the guild chat

As my guild master explains, “lone-wolf players” are not very active in the guild chat.

This could be related to the different motivations they have. “Achievement” could be the main motivation for the players that prefer to play alone, and “sociability” is the main motivation of other players (Yee, 2006a).

[Ad] [whispers]: ... it can be difficult finding people to quest with

[Ad] [whispers]: As for myself, i've always enjoyed questing together with someone, not because it's easier or anything like that. But because I enjoy company

In the case of Ad, her main motivation is “sociability” since she plays with others so they can have interaction, rather than for “achievement”-related reasons such as levelling up faster. Whether a player chooses to play alone or with other players, they are satisfying a motivation. These motivations tie players to the game during the pandemic as well.

Other than being a game-world, World of Warcraft creates a place to share the private parts of life. These are conversations you may have with close friends, but you can have them in this virtual world. Ad shared how pandemic affected her negatively and how she was able to see the silver lining during these difficult times.

[Ad] [whispers]: I did play more during lockdown yes, since i wasn't able to go out like usual

[Ad] [whispers]: But it might've been a result of me using my job because of the pandemic aswell. But it's probably a little bit of both to be honest

*[Ad] [whispers]: *me losing*

...

[Ad] [whispers]: Well, i did lose it (my job) quite late during the pandemic, so i'm currently between jobs. But i'm actively searching for one

[Ad] [whispers]: I've been a bit torn between it, on one hand it sucks losing my job and source of income of course. But i've been able to focus on myself in a completely different way, which i feel has had a positive impact

[Ad] [whispers]: on my life. So it's not all bad:)

World of Warcraft's game-play makes it a social experience in its virtual world. Players realise and appreciate this aspect of the game. When face-to-face interaction was limited with the pandemic conditions, WoW gives the opportunity to meet new people, make connections and socialise. Another aspect of sociable games is that people can share their stories freely since all they have is their avatars and character names. This works as “having a heart-to-heart talk” and can help with stress.

WoW has been around since 2004 (Blizzard, 2021) and players that started to game during its first years have strong attachments to it. This plays a part in coming back to the game from time to time since the game is the way they left it. The virtual world of it “remains unchanged”, as the player Van calls it, and it brings back memories. This nostalgia plays a part in the coming back situation during the pandemic.

Conclusion

MMORPGs present virtual worlds that one can achieve, be immersed in it and socialize in its environment. Focusing on the World of Warcraft, this paper explores the levelling stage. Fieldwork data, collected while playing the game derived through participant observation and casual conversations with players, suggest playing WoW has become a method for emotional

coping against the pandemic since experienced players came back to the game to play more and socialize more during this time. In World of Warcraft during the pandemic, “homo ludens” (Huizinga, 1971) meets new people, enjoys their company while doing something, and shares his/her experience of the pandemic in WoW.

Understanding a virtual world could unfold ways to cope in the “real world”. This paper argues that playing WoW could become a tool for better coping with the pandemic through its competition, chance, and simulation elements that create achievement-based, social, and nostalgic motivators in the game.

Acknowledgements

I would like to acknowledge and thank all of the informants that made this research possible.

References

- Allahverdipour, H., Bazargan, M., Farhadinasab, A., & Moeini, B. (2010). Correlates of videogames playing among adolescents in an Islamic country. *BMC Public Health*, *10*,(1). <https://doi.org/10.1186/1471-2458-10-286>
- Bainbridge, W. S. (2007). *The Scientific Research Potential of Virtual Worlds*. *Science*, *317*(5837), 472–476. doi:10.1126/science.1146930
- Blasi, M. D., Giardina, A., Giordano, C., Coco, G. L., Tosto, C., Billieux, J., & Schimmenti, A. (2019). Problematic video game use as an emotional coping strategy: Evidence from a sample of MMORPG gamers. *Journal of Behavioral Addictions*, *8*(1), 25–34. <https://doi.org/10.1556/2006.8.2019.02>
- Blizzard entertainment. (2021). Blizzard Entertainment. <https://www.blizzard.com/en-us/>
- Evidence from a sample of MMORPG gamers. *Journal of Behavioral Addictions*, *8*(1), 25–34. <https://doi.org/10.1556/2006.8.2019.02>
- Boellstorff, T., Nardi, B., Pearce, C., Taylor, T. L., & Marcus, G. E. (2012). *Ethnography and virtual worlds: A handbook of method*. Princeton University Press.
- Caillois, R. (1961). *Man, play and games* (Reprint ed.). University of Illinois Press.
- Carver, C. S. (2010). Coping. In R. Contrada & A. Baum (Eds.), *The handbook of stress science: biology, psychology and health* (pp. 221-229). Springer Publishing.
- Corneliussen, H. G., Rettberg J. W. (2008). *Digital culture, play, and identity: A world of warcraft reader*. Choice Reviews Online, *46*(02), 46–0709. <https://doi.org/10.5860/choice.46-0709>
- Deleuze, J., Maurage, P., Schimmenti, A., Nuyens, F., Melzer, A., & Billieux, J. (2019). Escaping reality through videogames is linked to an implicit preference for virtual over real-life stimuli. *Journal of Affective Disorders*, *245*, 1024–1031. <https://doi.org/10.1016/j.jad.2018.11.078>
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Hine, C. M. (2000). *Virtual ethnography* (First ed.). SAGE Publications Ltd.
- Huizinga, J. (1971). *Homo ludens*. Amsterdam University Press.
- Hussain, Z., & Griffiths, M. D. (2009). Excessive use of Massively Multi-Player Online Role-Playing Games: A Pilot Study. *International Journal of Mental Health and Addiction*, *7*(4), 563–571. <https://doi.org/10.1007/s11469-009-9202-8>
- Johnson, D., Jones, C., Scholes, L., Carras, M. (2013), *Videogames and Wellbeing*, Young and Well Cooperative Research Centre, Melbourne.

- Kirby, A., Jones, C., & Copello, A. (2014). The impact of massively multiplayer online role playing games (MMORPGs) on psychological wellbeing and the role of play motivations and problematic use. *International Journal of Mental Health and Addiction*, 12(1), 36–51. <https://doi.org/10.1007/s11469-013-9467-9>
- Mearls, M., & Crawford, J. (2014). *Dungeons & dragons player's handbook*. Renton, WA: Wizards of the Coast.
- Nardi, B., & Harris, J. (2006, November). Strangers and friends: Collaborative play in world of warcraft. CSCW '06: *Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work*, 149–158. <https://doi.org/10.1145/1180875.1180898>
- Nardi, B. (2010). *My life as a night elf priest: An anthropological account of world of warcraft (technologies of the imagination: New media in everyday life)* (Illustrated ed.). Digital Culture Books.
- Przybylski, A. K., Weinstein, N., Ryan, R. M. & Rigby, C. S. (2009). Having to versus wanting to play: Background and consequences of harmonious versus obsessive engagement in videogames, *CyberPsychology & Behavior*, 12(5), 485-492. <https://10.1089/cpb.2009.0083>.
- Przybylski, A. K., Weinstein, N., Murrayama, K., Lynch, M. F. & Ryan, R. M. (2011). The ideal self at play: The appeal of videogames that let you be all you can be. *Psychological Science*, 23(1), 69-76. <https://doi.org/10.1177/0956797611418676>
- Ramshaw, A. (2020). 'World of warcraft is my home from home': An argument for the protection of virtual worlds. *Journal of Law, Technology and Trust*, 1(1). <https://doi.org/10.19164/jltt.v1i1.1012>
- Sherlock, L. (2009). Genre, Activity, and Collaborative Work and Play in World of Warcraft. *Journal of Business and Technical Communication*, 23(3), 263–293. <https://doi.org/10.1177/1050651909333150>
- Snodgrass, J., Lacy, M., Dengah, F. & Fagan, J. (2011). Enhancing one life rather than living two: Playing MMO's with offline friends. *Computers in Human Behaviour*, 27(3), 1211-1222. <https://doi.org/10.1016/j.chb.2011.01.001>
- Snodgrass, J., Lacy, M., Dengah, F. & Fagan, J. (2011). Magical flight and monstrous stress: Technologies of absorption and mental wellness in azeroth. *Culture, Medicine, and Psychiatry*, 35(1), 26-62. <https://doi.org/10.1007/s11013-010-9197-4>
- Snodgrass, J. G., Dengah, H. J. F., Lacy, M. G., & Fagan, J. (2013). A formal anthropological view of motivation models of problematic MMO play: Achievement, social, and immersion factors in the context of culture. *Transcultural Psychiatry*, 50(2), 235–262. <https://doi.org/10.1177/1363461513487666>
- Tichon, J. G., & Mavin, T. (2016). Experiencing resilience via video games. *Social Science Computer Review*, 35(5), 666–675. <https://doi.org/10.1177/0894439316664507>

- Tolkien, J. R. R. (1991). *The lord of the rings*. HarperCollins.
- Tonkin, A., & Whitaker, J. (2016). Playing for health. In A. Tonkin & J. Whitaker (Eds.), *Play in Healthcare for Adults: Using play to promote health and wellbeing accross the adult life span* (pp. 5–17). Routledge.
- Wack, E. & Tantleff-Dunn, S. (2009). Relationships between electronic game play, obesity, and psychosocial functioning in young men. *Cyberpsychology & Behavior*, *12*(2), 241-244. <https://doi.org/10.1089/cpb.2008.0151>
- Weiss, A., & Tettegah, S. (2012). World of Race War. *International Journal of Gaming and Computer-Mediated Simulations*, *4*(4), 33–44. <https://doi.org/10.4018/jgcms.2012100103>
- Weissman, Dustin R., "Impacts of Playing Massively Multiplayer Online Role-Playing Games (MMORPGs) on Individuals' Subjective Sense of Feeling Connected with Others" (2017). *PsyD Program in Clinical Psychology Doctoral Dissertations (Santa Barbara)*. Retrieved from: <http://aura.antioch.edu/psycpsb/1>
- Williams, J. P., & Kirschner, D. (2012). Coordinated Action in the Massively Multiplayer Online Game World of Warcraft. *Symbolic Interaction*, *35*(3), 340-367. <https://doi.org/10.1002/j.1533-8665.2012.00022.x>
- World Health Organization. (2021a). Mental health and COVID-19. <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/publications-and-technical-guidance/noncommunicable-diseases/mental-health-and-covid-19>
- World Health Organization. (2021b). Coronavirus disease (COVID-19). https://www.who.int/health-topics/coronavirus#tab=tab_2
- World of Warcraft: The Wrath of the Lich King (PC version) [Massively Multiplayer Online Role-Playing Game]. (2008). Blizzard Entertainment.
- World of Warcraft. (2021). In *Encyclopaedia britannica*. Retrieved from: <https://www.britannica.com/topic/World-of-Warcraft>
- Vella, K., Johnson, D., Hides, L. (2013, October 2-4). *Positively playful: When videogames lead to player wellbeing* [Paper Presentation]. Gamification 2019 Proceedings, Stratford, Ontario, Canada.
- Yee, N. (2006a). Motivations for Play in Online Games. *CyberPsychology & Behavior*, *9*(6), 772–775. <https://doi.org/10.1089/cpb.2006.9.772>
- Yee, N. (2006b) Motivations of Play in MMORPGs: Results from a Factor Analytic Approach, Retrieved from: <http://www.nickyee.com/daedalus/motivations.pdf> on 10th October 2011 at 13:10

Contact email: rengurel@gmail.com