

## LITERATURE REVIEW - MIGRATION & GAME DESIGN WORKING GROUP

Video games' history is over 40 decades long. Video games were initially developed for [leisure and joy](#) (Schell, 2008) but are nowadays used as a [potent tool](#) (Kagen, 2019) for learning. Video games are no longer designed to attract children and have extended their user base to adults.

This audience expansion opened new domains for video games. One of them is learning. In this sense, video games are often labeled as serious games, combining knowledge and application. This combination provides users a critical view of [social and moral principles](#) (Bogost, 2007). Thus, video games are used in a complementary way to [contextualize abstract principles](#) (Pereira et al., 2012). For example, serious games [promote prosocial values](#) (Kienzl & Trattner, 2019), such as the [representation of minorities](#) (Dietrich, 2013) or the [oppressed](#) (Frasca, 2001).

The effect of [serious games](#) (Dahya, 2009) on the learning process has been widely [discussed](#) (Mitgutsch & Alvarado, 2012) and tested. [Some studies](#) (Cowley et al., 2013) have even challenged the learning outcomes of meta-processes in the design, such as reflection or discussion after playing video games. However, [learning](#) (Haworth et al., 2013) is not the only goal.

Indeed, game design is used as a [catalyst for eliciting empathy](#) (Aldea, 2019) and is developed to [raise awareness](#) (Rebolledo-Mendez et al., 2009) of different relevant topics in modern society, topics which are hard to convey to the population. These difficulties in [communicating information](#) (Sicart, 2009) reside in the moral implications of the data processed. Thus, the role of empathy in game design is to bring out this information otherwise subject to censorship on media channels.

Furthermore, [the studies conducted by Belman and Flanagan](#) highlighted the limitation of processing and connecting with the information given through different communication means (Belman & Flanagan, 2009). For example, even when there is a clear account of the hardships suffered by migrants in the news, these hardships do not impact the reader the same way they would experience by playing a role in video games. In the same view, studies on [mental illness](#) (Fordham & Ball, 2019) showed that health issues do not frequently appear in the media. The lack of interest in reporting these issues makes them challenging to understand and prevent. In this context, serious games can promote [empathetic understanding](#) (Raphael et al., 2010).

The interest in empathy in video games started with psychological studies, focusing on conflict resolution. The categories of empathy that are commonly referred to are [cognitive and emotional empathy](#) (Belman & Flanagan, 2009). Cognitive empathy relates to [taking the point of view](#) of the participant (Smethurst & Craps, 2015). Therefore, the player must learn and understand the participant's inner state, [feelings, and thoughts](#) (Happ, 2013). Emotional empathy is divided into [parallel empathy](#) (Stephan & Finlay, 1999) and [reactive empathy](#) (Peng et al., 2010). The first one pertains to "[the vicarious experience of another's emotional state](#)" (Belman & Flanagan, 2009, p. 6), while the second triggers a reaction. Indeed, the game creator needs to design a particular game by mirroring a specific situation. To create this experience, the player needs to feel the same emotions as the video's character.

The goal of serious games is to change attitudes regarding others by perceiving them as similar to the group they identify with. This similarity is achieved through experience. It does not mean that the experience must be real. Indeed, the experience can be developed in video games through role-plays. These experiences' direct effect is the [reduction of prejudice](#) (Burgess et al., 2011) by fighting television, films, and [video games stereotypical representations of certain conditions](#) (Leonard, 2003) and [respectfully re-interpreting them](#) (Daniels, 2019).

*Dear Esther and Papers, Please* (Smethurst & Craps, 2015)(Shamdani, 2017) are examples of video game design that demonstrate a level of engagement with trauma. In these situations, the design structure incorporates visual aesthetics of trauma or near-impossible choices.

Creating empathy through serious games is not without pitfalls. Psychological studies highlight the failures in developing empathy, especially when the player is socially distanced from the victim. Hence, the outcomes are reversed with the player engaging in *Schadenfreude* (Cikara et al., 2011), namely a *pleasure of another's misfortune* (Lazzaro, 2004).

Another pitfall in the theory of empathy in video games is that the design must provide the player a certain and visible exit from the game. Constraining the player inside the game has the negative consequences of precluding future empathetic behavior because of the trauma experienced. By avoiding feeling empathy, the *player also avoids the suffering and pain connected with the experience* (Happ, 2013).

By taking advantage of serious games, several countries have raised awareness regarding immigration and refugee issues. Most of the issues developed in institutional video games are related to ongoing, long-standing conflicts, such as the *Israel-Palestinian conflict* (Gonzalez et al., 2013). The Syrian crisis also triggered the need to develop *migration-themed serious games* for the European Union population (Plewe & Fürsich, 2018).

In recent years, the political crisis coupled with rising criminal organizations in Central American countries, mainly *Honduras* (Meyer, 2019) and *Guatemala* (Taft-Morales, 2019), forced thousands of migrants to abandon their home countries. As a result, the U.S. faced an unexpected wave of *migrants* (Greenfield et al., 2019) at the southern border that heightened concerns regarding *immigration* (Capps et al., 2019) and integration *policies* (Bruno, 2019). Many who arrive from Central America are eligible to stay in the U.S. as *refugees* (Convention and Protocol Relating to the Status of Refugees). Still, the *bureaucracy* (Asylum Eligibility and Procedures) and the difficulties in navigating this process limited their chances to *remain legally* (Randolph, 2017).

The following video games account for the development and discussion around migration-themed serious games, focusing on Central American migration. Most of the literature regarding migration-themed serious games targets adults. However, there is also an increasing number of *serious games for children* (Shliakhovchuk, 2018).

Serious games on refugees aim to *persuade* (Perron, 2005) and *shape the players' attitudes* (Huang & Tettegah, 2014). For example, *1000 days of Syria* (Shliakhovchuk, 2018) gives the participant an active role in the Middle Eastern conflict history. The participants are not constrained to pick the refugee's role; they can choose instead to be a journalist or rebel. The game does not include any visuals, providing participants only a text upon which to base their choices. This technique is referred to as *linguistic persuasion* (Kerpitsopoulou, n.d.) that, coupled with *affective responses* (Shamdani, 2017), can influence their beliefs.

The main task in migrated-themed games is survival. In *Bury me, my love* (a translation from Arabic that means to take care) (Kagen, 2019), a refugee woman escapes from Syria and reaches Europe while keeping in contact with her family through text messages. The story of survival reaches the player, who sometimes experiencing frustration and desolation from being far from family and friends.

The messages that video games try to convey might differ. *1000 days of Syria* (Shliakhovchuk, 2018) centers on the reasons for migrating during a conflict; while *Against All Odds*, developed by the

UNHCR (Monaghan, 2020), centers on the [experiences of being a refugee](#) (Moreno Cantano, 2019). The messages emerging from serious games are [complementary to journalism](#) (Plewe & Fürsich, 2018) in understanding the political complexities of a humanitarian crisis, such as issues arising from [unaccompanied migrant minors](#) (Aronson, 2015). To this end, some experimental news games, such as the [Waiting Game](#) (Wei et al., 2018), uncover flaws in the U.S. system and the struggle refugees face when seeking asylum through a game based on real case files of five asylum seekers.

A role-play simulation game that raises social awareness of the refugee genocide in Sudan is [Darfur is Dying](#) (Peng et al., 2010). The player sends a family member to get water, knowing that the selected member can face rape or death from military aggression. The game covers the topics of genocide, social and refugee awareness. To better understand military conflicts, [Hush](#), a socio-political game (Papoutsi & Drigas, 2016), brings up the Rwandan genocide. Players covering the role of mothers need to remain undisturbed and peaceful while trying to keep their children calm to avoid detention by militants. Here, the player's immersive involvement focuses on the refugee's experience rather than trying to solve the conflict. Thus, [Hush](#) offers an empathetic perspective by disempowering the player. The player is unable to pick a choice that safely makes her escape from the game (Belman & Flanagan, 2009).

Instead of prioritizing raising awareness about the conflict, some games offer a political perspective of different actors involved and their effects on the population. [Peacemaker](#) (Burak et al., 2005) focuses on the Israeli-Palestinian conflict from the decision-maker perspective with a government simulation (Devlin-Scherer & Sardone, 2010). This game raises social awareness while illustrating the impact of political decisions. As a turn-based video game, the interaction is paused for a while, increasing the feeling of urgency and contingency of the events evolved. [ICED-I Can End Deportation](#) also deals with social awareness in a different context (Amaya, 2015). The players take the role of a young immigrant in detention that has been separated from her family in New York. The scope of the video game is to account for unfair policies and human rights. The use of new techniques in game design such as 3D role-playing, allowed an extreme immersion of the player by challenging free will choice. Indeed, the goal of this game is to learn through frustration about the social and legal environment.

Deportation and immigration law are topics developed in [Homeland Guantánamos](#), where a journalist-detective investigates an immigrant prisoner's death in U.S. custody (Gabriel, 2015). The game emphasizes the difficult conditions in detention centers that trigger human rights issues. However, the perspective is always one of an outsider. In the same way, [Papers, Please](#) puts the player in the position of an immigration officer of a fictional country deciding who can cross the borders (Boltz et al., 2015). The game invites the player to challenge the procedures and rules involved in securing documents through high-end narratives and graphics. Moreover, the game gives the player a more profound vision of the judicial system, questioning oversimplified assumptions on the judiciary and, in general, on public order.

[Escape from Woomera](#) was one of the first games dealing with immigration centering on an Iranian asylum seeker with multiple asylum denials (Gabriel, 2015). Trying to escape from the city is hard since there are not choices available, again playing with frustration and near impossible choices that can also have a physical impact on the player. Thus, the goal is to create a critical reaction in the reader rather than entering into an empathic perception of asylum seekers.

[Mission U.S.: City of Immigrants](#) (Thirteen & WNET, 2015) is a game developed for students in high school. It tells the story of Lena, a young Jewish woman from Russia reaching Ellis Island with her family. The game immerses the participant into the life of an immigrant whose economic support to the family carves out her prospective avenues for integration. The game has a written component, students

read a traditional text with the same information before playing the game. While playing the game, the student's choices will impact Lena's future in the U.S. (Farber, 2017).

[Borders](#) (CBC Radio, 2017) is one of the few games addressing immigration issues at the U.S. southern border. In this game, Mexican immigrants cross the U.S. border seeking a better future. Made by a second-generation Mexican and first-generation U.S. citizen, the connection with vivid scenarios helps create a picture of the struggles of millions of immigrants. The struggles range from dehydration to anxiety created by a nearby border patrol. The videogame approach combined visuals with textual information, enlightening the decision process, and providing an excessive number of choices. Leaving the player with too many choices has proved to refrain participants from engaging with empathy (Gabriel, 2015).

Without the textual issues but illustrating vivid firsthand scenarios, [Smuggle Truck](#) is a physics game where a player drives a pick-up at the border with the U.S. with illegal immigrants (Gabriel, 2015). To reach the destination, the player needs to overcome different obstacles in the shortest time and complete safety for the passengers (the immigrants). [Apple Store](#)'s rejected the game on their platform following a content analysis of the underlying satire of the immigration system in the U.S. (Nguyen, 2016). Moreover, it was argued that the game also might encourage illegal immigration by training potential truck drivers through videogames. Eventually, the game's main characters were substituted with fluffy animals, but [the goal of creating empathy regarding immigration evanesced](#) (Gabriel, 2015). The [critics to this game](#) went further on emphasizing migrant's objectification (from stereotyped Mexicans to fluffy animals) being the sole aesthetic element in the two versions and the inconvenient object (Kagen, 2019).

[Vagamundo](#) is a video game that deals with undocumented Latino immigrants in U.S. metropolises (Nguyen, 2016). A Latino person's depiction as a street vendor involuntarily conveys and asserts Latino immigrants' prejudice as a lower-level workforce. While the game evolves within a narrative of poverty, assimilation, and prosperity, it minimizes the difficulties in finding a job since the only hurdle is refraining from drinking alcohol (Gabriel, 2015).

The studies centered on serious games show different approaches that have a primary goal of fostering empathy while a secondary goal of creating an effect on the player, particularly triggering a reaction of critical thinking about the system. Indeed, the advancement in technology and accessibility can help in spreading massive awareness on sensitive issues. This literature review also showed that few games are addressing the Central American migration issues. Most of the migration-themed video games assess the procedures to enter into the U.S. by crossing the border; however, one perception is missing, such as the motives for migrating and the socio-political issues that triggered migration.

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