# NOT WAITING FOR OTHER PLAYERS ANYMORE

## GAMING IN THE MIDDLE EAST BETWEEN ASSIGNATION, RESISTANCE AND NORMALIZATION

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In the last decade, ludology has expanded its object of analysis, mirroring an expansion in the worldwide use of gaming technologies. Though they are sometimes thought of as a product of pop culture produced and consumed in the industrialized countries of the global north, video games have been used extensively in regions sometimes characterized as peripheral or semi-peripheral, including Latin America, Africa, the Middle East and Asia. These regions have been the field of actual wars and thus actual propaganda from which topoi have been integrated into the products of global pop culture: movies, television series and more recently, video games. The many representations of the Self and the Other in American video games have been extensively studied by scholars who have analyzed popular stereotypes of the United States[1] or Latin America[2] used by mainstream game producers.

Today, video games are increasingly produced and consumed in the "global south," This qualification requires definition. Often considered as "peripheral" regions and countries to a global "Western"[3] (and Japanese) core because of the (economic or military) power gap between the two, this dichotomy is of little help when analyzing global popular culture artifacts like video games: gamers from different minorities do not see themselves as outsiders from video game culture.[4] Rather, the qualification is a metaphor for societies having experienced colonialism—and may still struggle with neocolonialism—without defining them above all by their dominated condition.[5] The study of popular culture in dominated countries doubles the risk of analytical asymmetry (a dominated object appropriated by dominated societies). This asymmetry is characterized by two equally problematic biases: populism (celebrating popular culture as more authentic while being blind to the domination relations that shaped it) and *miserabilism* (considering the poor's culture as a poor culture, necessarily wanting in comparison to the legitimate culture).[6]

This increase of production and consumption has taken place in all the parts of the global south, including Africa, Asia and South America[7]—and the Middle East is no exception. This has led to the

1. Gagnon Frédérick, "'Invading Your Hearts and Minds': Call of Duty and the (Re)Writing of Militarism in U.S. Digital Games and Popular Culture," *European Journal of American Studies* 5.3 (2010).
2. Phillip Penix-Tadsen, "Latin American Ludology: Why We Should Take Video Games Seriously (and When We Shouldn't)," *Latin American Research Review* 48.1 (2013).
3. Understood here as strictly European countries, the United States, Canada, Australia and New Zealand. This represents the countries which are industrialized, from Christian heritage and have a mostly white population. These countries are politically and economically dominant at the global level and are associated with a history of imperialistic or racist policies, including the Atlantic slave trade, colonization and post-colonial conflicts.
4. See Phillip Penix-Tadsen, "Introduction: Video Games and the Global South," in this volume.
5. Ibid.
6. Claude Grignon and Jean-Claude Passeron, *Le Savant et le populaire. Misérabilisme et populisme en sociologie et en littérature* (Le Seuil, 1989).
7. See the following chapters in this volume: Jules Skotnes-Brown, "Colonized Play: Racism, Sexism and Colonial Legacies in the Dota 2 South Africa Gaming Community"; Rebecca Yvonne Bayeck, "The Emerging African Video Game Industry: An Analysis of the Narratives of Games Developed in Cameroon and Nigeria"; Nicola Pallitt, Muya Koloko and Anja Venter, "Whose 'Game Culture' is It, Anyway? Exploring Children's Gameplay across Cape Town"; Souvik Mukherjee, "Replaying the Digital Divide: Video Games in India"; José Messias, Diego Amaral and Thaiane Oliveira, "Playing Beyond Precariousness: The Political Aspect of Brazilian Modding in Pro Evolution Soccer"; Daniel Calleros Villareal, "Digital Masks and Lucha Libre: Visual Subjectification and Allegory of Mexico in Video Games"; and Jerjes Loayza, "Ludic Solidarity and Sociality: An Analysis of the Impact of Dota 2 on Lima's Youth."

development of several strategies to mitigate negative stereotypes conveyed by Western games and to offer an endogenous narrative. One has been to reverse the roles usually attributed to Western soldiers and Arab-Muslim fighters. The other has been to offer a specifically Muslim experience, where Islam—as a religion and culture—is positively depicted rather than merely serving as a counter-narrative.[8]

While perspectives on ludology continue to expand, still relatively few studies have focused on gaming practices in countries from the global south.[9] This may be attributed to several theoretical and practical issues: the relatively lower impact of these countries on the global game industry, language barriers and practices that make circulation difficult to measure, including piracy, modding and variations in internet connectivity. However, internet access is increasing across the Middle East, and as was observed in the widespread use of social networks during the Arab Spring, the specific ways people in this region create and use digital products deserve to be further explored.

This chapter aims at providing a basic exploratory framework for understanding current video game practices in the Middle East.[10] It will first describe the current state of the field and the theoretical tools useful for approaching video games in the Middle East from an academic perspective. Next, the chapter will review the results of current research, drawing on a holistic approach to the examination of the objects of pop culture in their four primary dimensions: their context of their production, their content, their audience and the recoding operated by the audience.[11] These results will be analyzed to the light of recent data of online gaming and internet usage practices in the region.

MIDDLE EASTERN LUDOLOGY: FROM A LACK OF SYSTEMATIC ASSESSMENT TO A POSTCOLONIAL THEORETICAL FRAMEWORK

As a result of the scarcity of the field of ludology in and on the Middle East, this chapter remains an exploratory study. Within this specific subfield, there is relatively little information to build upon, due in part to a gap in knowledge, the lack of a constituted field and a relatively minute object of study.[12] Structured scientific knowledge on the subject is still wanting, as evidenced in measurable data such as Google Scholar searches. A search with the keywords "'Middle East' 'video games'" yields roughly 14,000 results. It bears comparing to the results of similar searches on other popular culture artifacts: "'Middle East' 'internet'" (444,000), "'Middle East' 'television'" (221,000), "'Middle East' 'radio'" (219,000), (205,000), "'Middle East' 'movie'" (64,000), "'Middle East' 'social media'" (38,000) or "'Middle East' 'rap'" (32,000). Still, more niche items yield fewer results, including 'comics' (9,000), 'pop music' (7,000) and 'porn' (7,000). These numbers are dwarfed by those of similar searches regarding the United States, one of the most widely studied countries and societies within media studies and other fields. The search shows approximately nine times more results, with 120,000 for "'United States 'video games.'"[13] Seeking to go beyond decontextualized analyses

8. Pierre-Alain Clément and Barthélémy Courmont, "When Geopolitics Meets the Game Industry. A Study of Arabic Video Games and What They Teach Us," *Hemispheres* 29.1 (2014).

9. Among seminal works figure Phillip Penix-Tadsen, "Latin American Ludology" and Souvik Mukherjee, *Videogames and Postcolonialism: Empire Plays Back* (Palgrave Macmillan, 2017).

10. Understood here as the 22 member states of the Arab League.

11. Harold Hinds, "A Holistic Approach to the Study of Popular Culture: Context, Text, Audience, and Recoding," in *Popular Culture Theory and Methodology*, eds. Harold Hinds, Marilyn Motz and Angela Nelson (University of Wisconsin Press, 2006).

12. Foundational works include: Helga Tawil-Souri, "The Political Battlefield of Pro-Arab Video Games on Palestinian Screens," *Comparative Studies of South Asia, Africa and the Middle East* 27.3 (2007); Vít Šisler, "Digital Arabs: Representation in Video Games," *European Journal of Cultural Studies* 11.2 (2008); Šisler, "Palestine in Pixels: The Holy Land, Arab-Israeli Conflict, and Reality Construction in Video Games," *Middle East Journal of Culture and Communication* 2.2 (2009a); Šisler, "Videogame Development in the Middle East: Iran, the Arab World, and Beyond," in *Gaming Globally: Production, Play, and Place*, eds. Nina Huntemann and Ben Aslinger (Palgrave Macmillan, 2013); Ahmad Ahmadi, "Iran," in *Video Games Around the World*, ed. Mark J. P. Wolf (MIT Press, 2015); Mohammed Ibahrine, "Video Games as Civilizational Configurations," in *Islamism and Cultural Expression in the Arab World*, ed. Abir Hamdar and Lindsey Moore (Routledge, 2015); Radwan Kasmiya, "Arab World," in *Video Games Around the World*, ed. Mark J. P. Wolf (MIT Press, 2015).

13. Not surprisingly, industrialized or emerging regions and countries yield more results with this search: Japan (53,000), China (46,000), India (31,000), Mexico (27,000),

of popular culture products focused on the "text," Hinds promotes a holistic approach in which the context of production of the object, the audience it reaches and the feedback it receives from consumers are equally important aspects.[14] Middle Eastern ludology has laid ground for the analysis of these four aspects.

The context of gaming in the Middle East has only just begun to be systematically appraised. The founding work in this regard is Šisler's 2013 article categorizing the environmental constraints for the gaming industry as legal and social conditions shaping the editors' business models and games content.[15] Unsurprisingly, content is the main focus: representations of Arabs and Muslims have been the most studied theme,[16] especially in comparison to Western games representations.[17] Other analyses emphasize the specific cultural message transmitted by many games.[18] More precisely, representations of Arab or Muslims in Western games have been widely covered,[19] along with the negative attitudes towards Arabs and Muslims they could strengthen,[20] or the reduced bias a "serious game" could induce.[21]

The intensification of stereotypes seems to be an inherent aspect of video games: "we must accept that games are fundamentally reductive in nature."[22] This means that, within any culture, game designers don't create stereotypes on their own but reflect more vividly widely held (false) representations, though games "seem to exploit these stereotypes and clichés in a more apparent manner than other forms of media."[23] Reichmuth and Werning attribute this to the fact that, as a form of "neglected media," games, video or of other kind, suffer from "a lack of cultural prestige and scientific coverage" and are "seldom accepted as culturally relevant."[24] This has led to a stereotypical or even offensive treatment of many regions of the global south, like India.[25] In the case of the Middle East, Western games have often versed into Orientalism,[26] or as Radwan Kasmiya put it, a view of the Middle East focused on "the Crusades, oil and terrorism."[27] (Kasmiya is the former CEO of Syrian developer Afkar Media, which released several of the most professionally-made games in the region, and founder

Korea (25,000), Brazil (19,000) and Russia (17,000). However, other regions or countries of the global south covered in this book yield as much or less results: South Africa (14,000), Latin America (10,000), Caribbean (10,000) and Nigeria (6,000). The countries of the Middle East yielding the most results are Iraq (15,000) and Iran (10,000).

14. Hinds, "A Holistic Approach to the Study of Popular Culture."

15. Šisler, "Videogame Development in the Middle East."

16. Alexander Galloway, "Social Realism in Gaming," *Game Studies* 4.1 (2004); Šisler, "Digital Arabs"; Šisler, "Palestine in Pixels"; Vít Šisler and Ebrahim Mohseni, "Revolution Reloaded: Spaces of Encounter and Resistance in Iranian Video Games," in *Place, Space, and Mediated Communication: Exploring Context Collapse*, eds. Carolyn Marvin and Hong Sun-ha (Routledge, 2017).

17. David Machin and Usama Suleiman, "Arab and American Computer War Games: The Influence of a Global Technology on Discourse," *Critical Discourse Studies* 3.1 (2006); Helga Tawil-Souri, "The Political Battlefield of Pro-Arab Video Games on Palestinian Screens."

18. Krystina Derrickson, "Second Life and The Sacred: Islamic Space in a Virtual World," in *Digital Islam*, online platform edited by Šisler, 2008, http://www.digitalislam.eu/article.do?articleId=1877; Heidi Campbell, "Islamogaming: Digital Dignity via Alternative Storytellers," in *Halos and Avatars: Playing Video Games with God*, ed. Craig Detweiler (Westminster John Knox Press, 2010).

19. Ibrahim Marashi, "The Depiction of Arabs in Combat Video Games," paper presented at the Beirut Institute of Media Arts, Lebanese American University, 5-9 November 2001; Dean Chan, "Playing with Race: The Ethics of Racialized Representations in e-Games," *International Review of Information Ethics* 4.12 (2005); Anna C. Everett, "Serious Play: Playing with Race in Contemporary Gaming Culture," in *Handbook of Video Game Studies*, eds. Joost Raessens and Jeffrey Goldstein, (MIT Press, 2005); David Leonard, "Not a Hater, Just Keepin' it Real: The Importance of Race- and Gender-based Game Studies," *Games and Culture* 1.1 (2006); David Machin and Suleiman, Usama, "Arab and American Computer War Games"; Philipp Reichmuth and Stefan Werning, "Pixel Pashas, Digital Djinns," *ISIM Review* 18 (2006); Johan Höglund, "Electronic Empire: Orientalism Revisited in the Military Shooter," *Game Studies* 8.1 (2008); Anandam Kavoori, "Gaming, Terrorism and the Right to Communicate," *Global Media Journal* 7.13 (2008); Majed Balela and Darren Mundy, "Analysing Cultural Heritage and its Representation in Video Games," paper presented at Digital Games Research Association, Hilversum: The Netherlands, 2015; and Mohammed Ibahrine, "Video games as civilizational configurations."

20. Muniba Saleem, "Effects of Stereotypic Video Game Portrayals on Implicit and Explicit Attitudes," Master of Science Thesis, Iowa State University, 2008; Muniba Saleem and Craig Anderson, "Arabs as Terrorists: Effects of Stereotypes within Violent Contexts on Attitudes, Perceptions, and Affect," *Psychology of Violence* 3.1 (2013).

21. Saleem Alhabash and Kevin Wise, "PeaceMaker: Changing Students' Attitudes Toward Palestinians and Israelis Through Video Game Play," *International Journal of Communication* 6 (2012); Cleotilde Gonzalez, Lelyn Saner and Laurie Eisenberg, "Learning to Stand in the Other's Shoes: A Computer Video Game Experience of the Israeli–Palestinian Conflict," *Social Science Computer Review* 31.2 (2013).

22. Penix-Tadsen, "Latin American Ludology," 180.

23. Šisler, "Digital Arabs," 204.

24. Reichmuth and Werning, "Pixel Pashas, Digital Djinns," 47.

25. See, in this volume: Souvik Mukherjee, "Replaying the Digital Divide: Video Games in India."

26. Edward Said, *Orientalism* (Routledge & Kegan Paul, 1978).

27. Quoted by Ed Halter, "Islamogaming: Looking for Videogames in the Muslim World," *Computer Gaming World*, September 2006.

of Falafel Games.) With this treatment, there are two types of Middle East: a fantasy Middle East, focused on the exoticism of timeless tribal societies and a contemporary Middle East, focused on the threat of anti-Western or anti-Semitic terrorists. This issue can be compounded or alleviated by genre. First-person shooter (FPS) games tend to polarize identifications: the player is a hero "killing" dehumanized enemies. On the other hand, the balance of factions required in real-time strategy (RTS) games tends to present different groups as equally appealing. Thus, in games such as *Sid Meier's Civilization* (Microprose, 1991), "the in-game description of many features of Islamic civilization is unique for its correctness and sensitivity,"[28] a precision that can be expected by RTS players who want to "explore and roleplay alternative realities," or "try to 'accurately' roleplay history attempting to recreate historical empires or nations."[29]

Nevertheless, as Penix-Tadsen has argued, the medium itself requires some simplification for the sake of readability for the player.[30] In narrative media, such stereotypes serve a purpose: to draw the player's attention to the gameplay, the scenario, characters, etc., by providing a familiar semiotic context that requires minimal interpretation. This is why so many games that involve fighting use monsters: the dehumanizing process necessary to facilitate the act of "killing" is already done.[31] Problems arise, however, when games create realistic portrayals involving real-life human groups as the player's enemies. Things are even further complicated when Western games depict a Western hero fighting enemies belonging to the global south, echoing actual imperialistic, colonial and postcolonial conflicts led by the former against the latter as well as current neocolonial economic and political domination. But to date, Middle Eastern self-representations have attracted far less critical attention.

In terms of audience reception, modding and recoding practices in the Middle East, there are even fewer studies still. Analyses of how players receive and appropriate the games and their messages have been conducted in Palestine,[32] Iran,[33] in the Arab world in general,[34] in the West[35] and online.[36] Recoding remains the least-studied facet of Middle Eastern gaming. Tracing how consumers' practices can feedback to producers is difficult in and of itself, however it has shown how the increased weight of Middle Eastern markets (and Arab or Muslim consumers in the West) has incited Western developers to adopt a more sensitive approach when depicting Arabs and Muslims.[37]

The field of ludology in the Middle East has faced several notable obstacles in its path to development as a discipline. The first obstacle is the difficulty of accessing the field: the authoritarian context prevailing in most of the region and the persistence of language barriers are considerable hindrances, including for this author.[38] Plus, as might be expected from popular culture practices in impoverished or relatively impoverished contexts, gaming has spread throughout the Middle East primarily through the black market,[39] leading to a gap in first-hand data and a weak reliability of official numbers

28. Šisler, "Digital Arabs," 210.

29. See Rhett Loban and Thomas Apperley, "Eurocentric Values at Play: Modding the Colonial from the Indigenous Perspective," in this volume.

30. Penix-Tadsen, "Latin American Ludology," 180.

31. Mukherjee, *Videogames and Postcolonialism*, 55.

32. Tawil-Souri, "The Political Battlefield of Pro-Arab Video Games on Palestinian Screens."

33. Hamid Allahverdipour, Mohsen Bazargan, Abdollah Farhadinasab and Babak Moeini, "Correlates of Video Games Playing Among Adolescents in an Islamic Country," *Bio Med Central Public Health* 10.286 (May 2010); Šisler, "Playing Muslim Hero: Construction of Identity in Video Games," in *Digital Religion: Understanding Religious Practice in New Media Worlds*, ed. Heidi Campbell (Routledge, 2012).

34. Šisler, "Video Games, Video Clips, and Islam: New Media and the Communication of Values," in *Muslim Societies in the Age of Mass Consumption*, ed. Johanna Pink (Cambridge Scholars Publishing, 2009b); Shaw, "Identity, Identification, and Media Representation in Video Game Play."

35. Pam Nilan, *Muslim Youth in the Diaspora: Challenging Extremism through Popular Culture* (Routledge, 2017).

36. Ahmed Al-Rawi, "Video Games, Terrorism, and ISIS's Jihad 3.0," *Terrorism and Political Violence* 17.1 (2016).

37. Šisler, "Video Games, Video Clips, and Islam."

38. For more insight on the methodological and ethical issues of such fields, see Vincent Romani, "Enquêter dans les Territoires palestiniens. Comprendre un quotidien au-delà de la violence immediate," *Revue française de science politique* 57.1 (2007) and Carolyn Nordstrom and Antonius Robben, eds., *Fieldwork under Fire: Contemporary Studies of Violence and Survival* (University of California Press, 1995).

39. Šisler, "Videogame Development in the Middle East," 251.

regarding this market. The second obstacle to the expansion of Middle Eastern game studies the relative lack of interest in this field: while established, ludology in itself is still sometimes considered as illegitimate by those considering popular culture as lacking in prestige. Meanwhile, contemporary studies of Middle East are focused on phenomena related to political violence, specifically its protagonists and causes.[40] Other studies deal with representations of Arabs and Muslims in Western games rather than games made in the region.[41] As a result, studies on the subject of gaming practices among the population of the Middle East are relatively scarce.[42] A third obstacle to the academic analysis of gaming in the Middle East is the fact that the region does not have as prolific a gaming industry as North America, Europe or Japan. On *Digital Islam*, the online platform dedicated to research on the subject he first developed, Vit Šisler records some 26 Arab video games, without any claims to exhaustiveness.[43] This is in stark contrast to the American or British gaming industries, which have grossed several times more than their respective movie industries for over a decade.[44]

In spite of these hurdles, Middle Eastern ludology is relevant to Middle Eastern studies for the same reasons Penix-Tadsen defends Latin American ludology: due to video games' "massive dispersion and consumption, participatory cultural simulation, the remediation of existing expressive traditions, and the capacity to have a profound impact on the way an ever-growing portion of the population sees our world," in other words, "games today are lived experiences, deeply affecting the way the world understands [Middle Eastern] culture and the way [Middle Easterners] understand themselves."[45] Moreover, in authoritarian contexts, digital tools can become a useful way to bypass the monitoring of expressions of dissent. This was notably the case before and during the Arab Spring when activists used social media to attract international heed and apply pressure on the dictatorial regimes under which they lived.[46] For these reasons, developing ludology in the Middle East will allow us to further develop our critical understanding of a neglected but important aspect of the cultural representations in the region's societies.

In short, current literature on gaming and the Middle East has primarily focused on representations of Arabs and Muslims in Western games. With the development of an endogenous gaming scene, video games and Middle East specialists have begun studying self-representations by analyzing game content and audience reception in the region. Only recently have contextual and recoding studies emerged, showing evidence of an increasingly mature field. In this regard, a postcolonial theoretical framework is increasingly useful: it allows to articulate how individuals in subaltern societies deal with former and current colonial domination, a type of domination that is frequently incorporated into the economic context of production and the cultural messages transmitted by video games. Within such a framework, the postcolonial concept of mimicry developed by Frantz Fanon and Homi Bhabha is useful: it is understood by the former as the dehumanizing tendency of the subaltern to mimic the dominant; and by the latter as a more ambivalent process in which the dominant is also

40. Romani, "Enquêter dans les Territoires palestiniens," 30.

41. Šisler, "Videogame Development in the Middle East," 252.

42. Tawil-Souri, "The Political Battlefield of Pro-Arab Video Games on Palestinian Screens."

43. See the following list: http://www.digitalislam.eu/findInSection.do?sectionId=1115&limit=50. Over time, the list has expanded from 15 and currently includes 160 games related to the Middle East. They were published between 1983 and 2012 (5.5 a year), including 26 "Middle Eastern and Islamic" games between 2001 and 2012 (two per year).

44. Trevir Nath, "Investing in Video Games: This Industry Pulls In More Revenue Than Movies, Music," *Bloomberg*, 13 June 2016; Tom Chatfield, "Videogames Now Outperform Hollywood Movies," *The Guardian*, 27 September 2009. This is hardly a novelty: during the so-called "golden age of video games" in the 1980's, the home gaming revenues equaled those of pop music and Hollywood, and the arcade gaming revenues were their double; see Everett Rogers and Judith Larsen, *Silicon Valley Fever: Growth of High-Technology Culture* (Basic Books, 1984), 263.

45. Penix-Tadsen, "Latin American Ludology," 185.

46. Margaret Keck and Kathryn Sikkink, *Activists Beyond Borders* (Cornell University Press, 1998); Ethan Zuckerman, "Meet the Bridgebloggers," *Public Choice* 134 (2008); Marc Lynch, "After Egypt: The Limits and Promise of Online Challenges to the Authoritarian Arab State," *Perspectives on Politics* 9.2 (2011). For a dissenting view, arguing that authoritarian regimes use the Internet to control the population, see Evgeny Morozov, *The Net Delusion: the Dark Side of Internet Freedom* (Public Affairs, 2011).

modified by its domination, in a form of hybridization.[47] Bhabha's complex definition is particularly relevant to gaming in the Middle East. Indeed, as the next section will demonstrate, the region is replete with contradictory perspectives on mimicry. On the one hand, there are strategies of distinction by producers, who have to negotiate between colonial representations in Western games, historical and geopolitical domination, and authoritarian regimes. On the other hand, consumers mimic to a large extant global trends in game consumption, participating in a complex relationship with stereotyped depictions in Western games which are popular, while also appropriating the medium and adapting it to local audiences.

VIDEO GAMES IN THE MIDDLE EAST: DISTINCTION IN PRODUCTION, MIMESIS IN CONSUMPTION

Furthering the holistic approach described by Hinds, this section is drawing a summary portrait of contemporary gaming in the region in the four dimensions he outlined: context, text, audience and recoding.[48] Before proceeding, it is crucial to emphasize the global approach adopted here should not conceal the extensive diversity of a region comprised of 22 countries on two continents, home to close to 400 million people practicing multiple religions, speaking various languages, having distinct histories and ranking very differently with regard to myriad political, economic and social factors. The main reason to deal the region as a whole is because of similar traits—such as mostly Muslim societies and mostly authoritarian regimes—as well as the region's treatment as a homogenous, one-dimensional monolith by Western game developers.

The context of the Middle East today is marked by the contradictory forces of political and social constraints and technological evolution. The gaming industry in the region is still in an early stage, even if it is growing. Like the relative lack of formal scholarship, the scarcity of locally-produced games is the result of several structural obstacles. Most importantly, production is hindered by a number of legal issues. The market is "flooded with cheap pirated games" according to Kasmiya, meaning local gamers get their hands on Western games not long after, or even before, they're released on the legal market, and for a couple of dollars.[49] The piracy rate for Middle East and Africa has been constant in the 2010 close to 60%, with only Israel, Qatar, the United Arab Emirates and Saudi Arabia scoring below 50%.[50] With many Arab countries having adopted no laws or joined any treaty to protect intellectual property, the market looks like a "pool full of sharks" to Kasmiya,[51] where games priced over 10 dollars are not sold.[52] This prevents the growth of developers and editors: with 40 people at its peak, Afkar Media is the region's largest game development company to date.[53]

This situation gives little incentive to foreign companies to localize their games or even mitigate their losses to piracy. The Middle East and Africa is the second-to-last out of six regions in terms of commercial value lost to piracy, at approximately US$3.7 billion in 2015.[54] Also, Šisler evokes technological hurdles caused by geopolitical tensions: "due to US technology embargoes, developers often can't legitimately buy engines, middle-ware and other development software."[55] This leads to games lagging in quality, even for "indie" games: *Unearthed: Trail of Ibn Battuta* (Semaphore, 2013),

47. Mukherjee, *Videogames and Postcolonialism*, 17, 59-60.
48. Hinds, "A Holistic Approach to the Study of Popular Culture," 2006.
49. Kasmiya, "Arab World," 30; see also Vit Šisler and Ebrahim Mohseni, "Revolution Reloaded: Spaces of Encounter and Resistance in Iranian Video Games," in *Place, Space, and Mediated Communication: Exploring Context Collapse*, eds. Carolyn Marvin and Hong Sun-ha (Routledge, 2017).
50. Business Software Alliance, *Seizing Opportunity Through License Compliance – BSA Global Software Survey*, May 2016, http://globalstudy.bsa.org/2016/: 7.
51. Quoted in Halter, "Islamogaming."
52. Games for Change, "Interview with Radwan Kasmiya of Afkar Media," *Games for Change*, 12 November 2010, http://www.gamesforchange.org/blog/2010/11/12/592/.
53. Halter, "Islamogaming."
54. Business Software Alliance, *Seizing Opportunity Through License Compliance*, 7.
55. Šisler, "Videogame Development in the Middle East," 201.

Saudi developer Semaphore's first game, which is often cited by critics of Middle Eastern game development, has been panned for its bugs, poor gameplay and animations, even though its developers used the relatively advanced Unity engine.[56] This also leads to creative developing: *Quest for Bush* (Al Qaeda, 2006) is a mod of the American *Quest for Saddam* (Petrilla Entertainment, 2003); *Special Force 2* (Hezbollah, 2006) is believed to be a *Far Cry* mod; *The Clanging of the Swords* (or *Salil al-Sawarem*, unknown, 2014), a game produced by Islamic State sympathizers is a mod of *Grand Theft Auto V*.[57] Interestingly, in spite of the militant groups' tech-savviness, especially in their magazines and videos, they still lag behind the most-advanced and popular games (the so-called "AAA games"). For example the initial *Special Force* (Hezbollah, 2003) was released in four languages (Arabic, English, French and Farsi), whereas the second opus was only released in Arabic; by the same token, Islamic state's "game" appears to be a game trailer (not even a mod) made to attract media attention, calling into questioning their intention to produce a real game in the first place.[58] When AAA games require budgets in the hundreds of thousands of dollars to make, these groups cannot compete. That may be why they reoriented their video game activities to the production of trailers and "let's play" videos (recorded while the player plays the game), which are far easier to copy from existing games.[59]

A further hindrance to the Middle Eastern game development is the prevalence of authoritarian regimes, many of which try to minimize Western cultural influence, placing constraints on developers. The richest or more active states have recognized video games as a tool to increase their influence. Thus, the United Arab Emirates (UAE), Saudi Arabia and Iran have subsidized production for reasons both international—presenting a positive image of Islam through a modern medium—as well as national—strengthening cohesion through religion.[60] In the other countries of the region, private entrepreneurs join spiritual and economic motivations to fund games which encourage Islamic values. Thus developers still have to take into account social norms and expectations and produce games highlighting "three common basic cultural values: collectivism, honor and hospitality."[61] These cultural requirements have been institutionalized with the creation of the Entertainment Software Rating Association by Iran and the UAE in 2010, on the model of the U.S. Entertainment Software Rating Board (ESRB) and the Pan European Game Information (PEGI) systems.

Technology has also had an impact on regional game development. Increased access to the Internet has allowed for the possibility of bypassing some censorship measures and decreasing production costs. On the global level since 2016, mobile gaming has been generating more revenue than the former largest segment, PC gaming, and Middle Eastern developers have adopted this trend too.[62] The growth of the mobile gaming segment is promoted by lower development costs, lower consumer prices and a profitable freemium business model that helps to mitigate piracy. As a result, one of the greatest recent successes in regional game development in terms of free and paid downloads has been the Lebanese game *Pou* (Paul Salameh, 2013), which has also gained popularity in Europe.[63] Kasmiya left Syria in 2011 to establish Falafel Games, a massive multiplayer online developer of mobile strategy

56. Kasmiya, "Arab World"; Balela and Mundy, "Analysing Cultural Heritage and its representation in Video Games."
57. However, now only a trailer and online videos of it exist. The game doesn't seem to have ever been released or even made. See Pam Nilan, *Muslim Youth in the Diaspora*, 123.
58. Miron Lakomy, "Let's Play a Video Game: Jihadi Propaganda in the World of Electronic Entertainment," *Studies in Conflict & Terrorism*, 2017, 10-18; Al-Rawi, "Video Games, Terrorism, and ISIS's Jihad 3.0," 7.
59. Lakomy, "Let's Play a Video Game," 24-25.
60. Šisler and Mohseni, "Revolution Reloaded: Spaces of Encounter and Resistance in Iranian Video Games."
61. Ibid.
62. Newzoo, "The Global Games Market Reaches $99.6 Billion in 2016, Mobile Generating 37%," *Newzoo*, 21 April 2016, https://newzoo.com/insights/articles/global-games-market-reaches-99-6-billion-2016-mobile-generating-37/.
63. Kasmiya, "Arab World," 33.

games based in Lebanon and China. To date, Falafal has managed to raise several million dollars of funds from regional venture capital investors based in Lebanon, Saudi Arabia and the UAE.[64] Other succeeding companies producing web browser games are Emirati Tahadi and Jordanian Maktoob, in which Yahoo invested after the latter's first successes.[65]

As a fledgling industry, Middle Eastern game development is reacting to global dynamics in terms of its content, gameplay and business models. The most common depictions of the region are being made by others, and therefore Middle Eastern developers struggle to voice an autonomous discourse. By and large, they adopt three approaches to the stereotypical depictions of the Middle East and its people that are prominent in video games: avoidance, transgression and subversion. Avoidance characterizes the large portion of regional production, especially in the early years, that has been dedicated to educational games directed towards young children that teach religious and cultural norms in a way that is little affected by the global dynamics of the industry.

Transgression has been the most spectacular, and perhaps the best-known, way in which Middle Eastern game developers have responded to dominant in-game stereotypes of the region. Games that attempt to transgress these depictions by reversing their hierarchical taxonomies includes *Stone Throwers* (or *Rumah al-Hijara*, Damascus online, 2000); *Special Force* (Hezbollah, 2003); the educational *Children of Jerusalem* (or *Fata al-Quds*, Hezbollah, 2004); the FPS *Special Force 2: Tale of the Truthful Pledge*; *Quest for Bush*, the game produced by an Al Qaeda-affiliated media company;[66] *Night of Bush Capturing* (or *Laylat al-Qabd ala Bush*, Global Islamic Media Front, 2006), *Special Operation* (or *Amaliyat-e Vizhe*, Iranian Student Union, 2007) and the Islamic state presumptive game *The Clanging of the Swords*. These games reverse the polarities of player identification usually found in games—in them, the player has to fight against Israeli soldiers; to save a nuclear scientist abducted by American forces or to kill the final boss portrayed as former president Bush. Thus these games react to other games or real-life events, but they also produce relatively little innovation and their quality remains low. Some of them are mods of U.S. games indeed, but not in the sense of "epistemic disobedience" against "industry mandates of standardization."[67] Rather, these games could be more precisely read as a form of trolling, which is indeed a strategic form of communication used as such by many militant groups.[68]

Parallel to this trend, more ambitious developers have favored subversion over transgression. They have tried both to deconstruct stereotypes and to affirm a specific identity beyond the confrontations between the East and West or the global north and south. As Kasmiya has stated, the point is not to "make 'anti-GI Joe' games" but rather to "make games that speak truths that are hidden behind louder voices."[69] These games seeks to re-appropriate Muslim, Arab or Persian identity, refusing to frontally confront the stereotypes common in the West in favor of highlighting the cultural aspects deemed a source of pride and civilizational progress in the Arab-Muslim world,[70] providing a sense

64. K.O, "Falafel Games lève 2,6 millions de dollars supplémentaires," *l'Orient–le Jour*, 19 October 2016.
65. Kasmiya, "Arab World," 32.
66. Ibahrine also mentions two games supposedly made by Al Qaeda: a 2009 Tetris-like puzzle game featuring the Twin Towers and in 2013 *Call of Jihad: Scourge of the Infidels*, a *Call of Duty*-like first-person shooter; see Mohammed Ibahrine, "Video Games as Civilizational Configurations," in *Islamism and Cultural Expression in the Arab World*, eds. Abir Hamdar and Lindsey Moore (Routledge, 2015): 213-214. In fact, these games do not exist, as they are hoaxes invented by parody websites, the former by Faking News, an Indian news satire site (http://www.fakingnews.firstpost.com/world/al-qaida-launches-video-game-to-celebrate-8th-anniversary-of-911-159) and the latter by *Duffel Blog*, an American military news satire site (http://www.duffelblog.com/2013/06/call-of-jihad-video-game/).
67. See José Messias, Diego Amaral and Thaiane Oliveira, "Playing Beyond Precariousness: The Political Aspect of Brazilian Modding in Pro Evolution Soccer," in this volume.
68. Al-Rawi, "Video Games, Terrorism, and ISIS's Jihad 3.0."
69. Games for Change, "Interview with Radwan Kasmiya of Afkar Media."
70. Clément and Courmont, "When Geopolitics Meets the Game Industry," 2014.

of "digital dignity."[71] This can be understood as subversion, as these games do not try to produce a mirror image of stereotyped Arab-Muslims; they are rather stepping aside and explore other things their producers think are relevant to share with the world: "what emerges from the Middle Eastern game production is a story of 'hybridization' and cross-cultural exchange rather than 'authenticity.'"[72] This trend testifies of a maturing field, switching from a defensive, identity-driven and avenging form of production to one that engages with the global industry.

While Middle Eastern game designers show signs of innovation, the region's gaming audience generally imitates global habits. Games like *Quraish* (Afkar Media, 2007) fared well: it "has been positively received by Arab gamers and has sold more than 50,000 copies."[73] But imitation is the main trait of the Middle Eastern gaming scene. Indeed, as an emerging scene, "a 'mainstream' Arab, Iranian or Pakistani gaming culture does not yet exist—or, more precisely, it consists primarily of the consumption of 'Western' games, albeit in new contexts and social settings."[74] This is confirmed by an epidemiological study conducted in Iran suggest similar consumptions and psychological impacts. From a sample of 444 Iranian middle schoolers, half of respondents had played "intensely violent" games. The authors mention several game series without specifying the individual titles: the British series of games *Driver* (Reflections, 1999) and *Grand Theft Auto* (Rockstar, 1997); the American series of games *Mortal Kombat* (Acclaim, 1992) and *Prince of Persia* (Brøderbund, 1989); and the Japanese series of games *Dead or Alive* (Team Ninja, 1996) and *Resident Evil* (Capcom, 1996). This study draws a "relationship between video game playing and mental health outcomes, with 'moderate' gamers faring best [while] 'excessive' gamers showed mild increases in problematic behaviors [and] non-gamers showed the worst outcomes."[75] This imitative approach to gaming can lead to some cognitive dissonance when Arab or Muslims play games depicting them in negative stereotypes. In a qualitative survey on how these gamers cope with such portrayals, Nilan found that they usually respond by distancing themselves from the content, or by highlighting its fictional nature and entertaining purpose.[76]

The YouTube scene reflects this mimetic stance in the Middle East vis-à-vis global game culture, which can also observed with regard to other dimensions of pop culture. Following "Comedy and Entertainment," "Tech and Gaming" channels get the most YouTube views throughout the region, averaging between 149,000 and 322,000 views and between 352,000 and 871,000 followers for the top five channels.[77] Reine Farhat, "What Are Users in the Arab World Watching on YouTube? (Infographic)," *Wamda*, 19 March 2014, https://www.wamda.com/2014/03/what-did-users-in-the-middle-east-watch-on-youtube-this-year. These five channels all come from Saudi Arabia, a country producing 25% of the "Tech and Gaming" content, Oman and Kuwait outputting 18% each. These results are obviously explained by internet access, which is considerably higher in wealthier countries. They are also almost all in Arabic, as is 93% of YouTube content from the region, showing that in spite of imitating Western patterns of game consumption, Arab gamers have appropriated the medium for purposes specific to the regional audience. Such a phenomenon appeared in South America, another prolific source of stereotypes for Western games, where the emergence of local producers led to a "boom in self-representation" which is maybe "just one of the first steps in the evolution of gaming as a global phenomenon."[78] In this

71. Šisler, "Digital Arabs," 213-214.
72. Šisler, "Videogame Development in the Middle East."
73. Ibid.
74. Ibid.
75. Allahverdipour, Bazargan, Farhadinasab and Moeini, "Correlates of Video Games Playing Among Adolescents in an Islamic Country," 3, 5.
76. Nilan, Muslim Youth in the Diaspora, 104-126.
77.
78. See Phillip Penix-Tadsen, "Introduction: Video Games and the Global South," in this volume.

regard, signals of appropriation of the medium, like the recent success of Tamatem, one of the largest Arabic speaking mobile games publisher, in raising US$2.5 million, may be a signal of increasing empowerment by local actors.[79]

Recoding is probably the most difficult process to trace in pop culture, but it represents one way in which Middle Eastern players "play back" against popular stereotypes, pushing for more diverse and accurate representations. Following up on the previous sections of this chapter, modding and recoding practices help to verify some of the hypotheses presented. First, more culturally-sensitive games are to be expected from modding communities. Public scandals like #Gamergate and the campaign of harassment against Anita Sarkeesian have led to some introspection regarding how games treat masculinity as well as female and homosexual players. In the same way, Arabs and Muslims living in Western countries and playing Western games can be expected to have the resources to voice concern against blatant stereotypes. If games offering a radically different take on these societies are unlikely, companies fearing commercial backlash are more likely to produce more nuanced games. Second, a desire for increased realism is likely to lead to more balanced portrayals. In FPS and RTS games in which all factions are playable, the "good vs. evil" narrative gives way to more dispassionate depictions. This has long been observable in historical war games offering the possibility to play as part of factions such as the Nazis. Recently, gamers have pushed realism further in the aptly named *Project Reality*, a *Battlefield 2* (Electronic Arts, 2005) mod that includes, among other factions, the "Middle East Coalition," the "Syrian Rebels," the "Taliban," the "Iraqi Insurgents" and the "African Resistance Fighters." Finally, gaming in the age of the internet will induce diversification with unclear consequences. The internet allows a multiplicity of producers (states, militant groups, activists, individuals) to generate a diversity of content, from ISIS propaganda to memes mocking ISIS propaganda. This can lead to polarization, as consumers are prone to restrict themselves to media validating their pre-existing beliefs, an effect particularly salient online. But this can also lead to positive familiarization, as the effects of increased exposure can increase consumers' favorability to cross-cultural content, through the psychological mere-exposure effect.

CONCLUSION

As can be seen in the examples analyzed above, Middle Eastern game developers and modders use multiple strategies of distinction, first to subvert Western stereotypes and second to bypass or endorse Middle Eastern political and cultural constraints. On the contrary, on the consumer side, similarities with the West are strong, in spite of an irreducible distance caused by widespread Orientalist depictions in popular Western games. Mimetic adoption of globally popular games and game genres by gamers of the region is probably due to the marketing acumen of Western games, which are capable of entertaining—and being sold to—people all over the world. This is leading Middle Eastern gamers to develop various strategies to deal with the cognitive dissonance between emotional entertainment and intellectual discomfort.

The Middle East thus shares three out of the four key factors characterizing gaming in the global south referenced in Penix-Tadsen's introduction to this anthology: except for the absence of a "longstanding game culture," the region indeed shares a "set of historical obstacles and affordances," a "legacy of cultural representation" shaped in the global north and "a conflicted official perspective" on the medium. Thus only time distinguishes the Middle East from the rest of the global south, which allows to make predictions with comparable societies in the south. Today, the Middle Eastern

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79. Wamda, "Tamatem Raises $ 2.5M to Localize Mobile Games for the MENA Market," *Wamda*, 2 February 2018, https://www.wamda.com/2018/02/tamatem-raises-25m-localize-mobile-games-mena-market.

gaming scene can be described as a scene struggling to exist autonomously. Looking West to the roots of the medium, Middle Eastern producers are the most active in their responses, since they are consciously rejecting the assignation to be the "usual suspects" of stereotyped antagonists. They do this through diverse practices of resistance, notably by distinguishing themselves from the most frowned-upon "excesses" of Western games: sexualization, violence and individualism. With regard to their own authoritarian regimes, the producers are far less engaged due of their vulnerability to state repression or their adhesion to a given regime's orientation. But nevertheless gamers, in their mimetic consumption of Western games, exhibit behaviors whose effects are far less subversive in nature. For this reason, in their struggle against assignation at the hands of stereotypes or state manipulation, stakeholders in Middle Eastern gaming are adopting behaviors of resistance or normalization that may well contribute to their emancipation from internal and external forces of domination.

WORKS CITED

Ahmadi, Ahmad. "Iran." In *Video Games Around the World*, edited by Mark J. P. Wolf. MIT Press, 2015.

Alhabash, Saleem and Kevin Wise. "*PeaceMaker*: Changing Students' Attitudes Toward Palestinians and Israelis Through Video Game Play." *International Journal of Communication* 6 (2012).

Allahverdipour, Hamid, Mohsen Bazargan, Abdollah Farhadinasab and Babak Moeini. "Correlates of Video Games Playing Among Adolescents in an Islamic Country." *Bio Med Central Public Health* 10.286, May 2010.

Al-Rawi, Ahmed. "Video Games, Terrorism, and ISIS's Jihad 3.0." *Terrorism and Political Violence* 17.1 (2016).

Balela, Majed and Darren Mundy. "Analysing Cultural Heritage and its Representation in Video Games." Paper presented at Digital Games Research Association, Hilversum: The Netherlands, 2015.

Business Software Alliance. *Seizing Opportunity Through License Compliance–BSA Global Software Survey*, May 2016, http://globalstudy.bsa.org/2016/

Campbell, Heidi. "Islamogaming: Digital Dignity via Alternative Storytellers." In *Halos and Avatars: Playing Video Games with God*, edited by Craig Detweiler. Westminster John Knox Press, 2010.

Chan, Dean. "Playing with Race: The Ethics of Racialized Representations in e-Games." *International Review of Information Ethics* 4.12 (2005).

Chatfield, Tom. "Videogames Now Outperform Hollywood movies." *The Guardian*, 27 September 2009, https://www.theguardian.com/technology/gamesblog/2009/sep/27/videogames-hollywood.

Clément, Pierre-Alain and Barthélémy Courmont. "When Geopolitics Meets the Game Industry. A Study of Arabic Video Games and What They Teach Us." *Hemispheres* 29.1 (2014).

Derrickson, Krystina. "Second Life and The Sacred: Islamic Space in a Virtual World." In *Digital Islam*, online platform edited by Vít Šisler, 2008, http://www.digitalislam.eu/article.do?articleId=1877.

Everett, Adrienne. "Serious Play: Playing with Race in Contemporary Gaming Culture." In *Handbook of Video Game Studies*, edited by Joost Raessens and Jeffrey Goldstein. MIT Press, 2005.

Farhat, Reine. "What Are Users in the Arab World Watching on YouTube? [Infographic]." *Wamda*, 19 March 2014, https://www.wamda.com/2014/03/what-did-users-in-the-middle-east-watch-on-youtube-this-year.

Gagnon, Frédérick. "'Invading Your Hearts and Minds': *Call of Duty* and the (Re)Writing of Militarism in U.S. Digital Games and Popular Culture." *European Journal of American Studies* 5.3 (2010).

Galloway, Alexander. "Social Realism in Gaming." *Game Studies* 4.1 (2004).

Games for Change. "Interview with Radwan Kasmiya of Afkar Media." *Games for Change*, 12 November 2010, http://www.gamesforchange.org/blog/2010/11/12/592/.

Gonzalez, Cleotilde, Lelyn Saner and Laurie Eisenberg. "Learning to Stand in the Other's Shoes: A Computer Video Game Experience of the Israeli–Palestinian Conflict." *Social Science Computer Review* 31.2 (2013).

Grignon, Claude and Jean-Claude Passeron. *Le Savant et le populaire. Misérabilisme et populisme en sociologie et en littérature*. Le Seuil, 1989.

Halter, Ed. "Islamogaming: Looking for Videogames in the Muslim World." *Computer Gaming World*, September 2006, http://eddostern.com/texts/Islamogaming.pdf.

Hinds, Harold. "A Holistic Approach to the Study of Popular Culture: Context, Text, Audience, and Recoding." In *Popular Culture Theory and Methodology*, edited by Harold Hinds, Marilyn Motz and Angela Nelson. University of Wisconsin Press, 2006.

Höglund, Johan. "Electronic Empire: Orientalism Revisited in the Military Shooter." *Game Studies* 8.1 (2008).

Ibahrine, Mohammed. "Video Games as Civilizational Configurations." In *Islamism and Cultural Expression in the Arab World*, edited by Abir Hamdar and Lindsey Moore, Routledge, 2015.

Kasmiya, Radwan. "Arab World." In *Video Games Around the World*, edited by Mark J. P. Wolf. MIT Press, 2015.

Kavoori, Anandam. "Gaming, Terrorism and the Right to Communicate." *Global Media Journal* 7.13 (2008).

Keck, Margaret and Kathryn Sikkink. *Activists Beyond Borders*. Cornell University Press, 1998.

K.O. "Falafel Games lève 2,6 millions de dollars supplémentaires." *l'Orient–le Jour*, 19 October 2016, https://www.lorientlejour.com/article/1013412/falafel-games-leve-26-millions-de-dollars-supplementaires.html.

Lakomy, Miron. "Let's Play a Video Game: Jihadi Propaganda in the World of Electronic Entertainment." *Studies in Conflict & Terrorism* (2017).

Leonard, David. "Not a Hater, Just Keepin' it Real: The Importance of Race- and Gender-based Game Studies." *Games and Culture* 1.1 (2006).

Lynch, Marc. "After Egypt: The Limits and Promise of Online Challenges to the Authoritarian Arab State." *Perspectives on Politics* 9.2 (2011).

Machin, David and Usama Suleiman. "Arab and American Computer War Games: The Influence of a Global Technology on Discourse." *Critical Discourse Studies* 3.1 (2006).

Marashi, Ibrahim. "The Depiction of Arabs in Combat Video Games." Paper presented at the Beirut Institute of Media Arts, Lebanese American University, 5-9 November 2001.

Morozov, Evgeny. *The Net Delusion: The Dark Side of Internet Freedom*. Public Affairs, 2011.

Mukherjee, Souvik. *Videogames and Postcolonialism: Empire Plays Back*. Palgrave Macmillan, 2017.

Nath, Trevir. "Investing in Video Games: This Industry Pulls In More Revenue Than Movies, Music." *Bloomberg*, 13 June 2016, http://www.nasdaq.com/article/investing-in-video-games-this-industry-pulls-in-more-revenue-than-movies-music-cm634585.

Newzoo. "The Global Games Market Reaches $99.6 Billion in 2016, Mobile Generating 37%." *Newzoo*, 21 April 2016, https://newzoo.com/insights/articles/global-games-market-reaches-99-6-billion-2016-mobile-generating-37/.

Nilan, Pam. *Muslim Youth in the Diaspora. Challenging Extremism through Popular Culture*. Routledge, 2017.

Nordstrom, Carolyn and Antonius Robben, eds. *Fieldwork under Fire. Contemporary Studies of Violence and Survival*. University of California Press, 1995.

Penix-Tadsen Phillip. "Latin American Ludology: Why We Should Take Video Games Seriously (and When We Shouldn't)." *Latin American Research Review* 48.1 (2013).

Reichmuth, Philipp and Stefan Werning. "Pixel Pashas, Digital Djinns." *ISIM Review* 18 (2006), https://core.ac.uk/download/pdf/15604749.pdf.

Rogers, Everett and Judith Larsen. *Silicon Valley Fever: Growth of High-Technology Culture*. Basic Books, 1984.

Romani, Vincent. "Enquêter dans les Territoires palestiniens. Comprendre un quotidien au-delà de la violence immediate." *Revue française de science politique* 57.1 (2007).

Said, Edward. *Orientalism*. Routledge and Kegan Paul, 1978.

Saleem, Muniba. "Effects of Stereotypic Video Game Portrayals on Implicit and Explicit Attitudes." Master of Science Thesis, Iowa State University, 2008.

Saleem, Muniba and Craig Anderson. "Arabs as Terrorists: Effects of Stereotypes within Violent Contexts on Attitudes, Perceptions, and Affect." *Psychology of Violence* 3.1 (2013).

Shaw, Adrienne. "Identity, Identification, and Media Representation in Video Game Play: An Audience Reception Study." Ph.D. Dissertation, University of Pennsylvania, 2010.

Šisler, Vít. "Digital Arabs: Representation in Video Games." *European Journal of Cultural Studies* 11.2 (2008).

—. "Palestine in Pixels: The Holy Land, Arab-Israeli Conflict, and Reality Construction in Video Games." *Middle East Journal of Culture and Communication* 2.2 (2009a).

—. "Video Games, Video Clips, and Islam: New Media and the Communication of Values." In *Muslim Societies in the Age of Mass Consumption*, edited by Johanna Pink. Cambridge Scholars Publishing, 2009b.

—. "Playing Muslim Hero: Construction of Identity in Video Games." In *Digital Religion: Understanding Religious Practice in New Media Worlds*, edited by Heidi Campbell. Routledge, 2012.

—. "Videogame Development in the Middle East: Iran, the Arab World, and Beyond." In *Gaming Globally: Production, Play, and Place*, edited by Nina Huntemann and Ben Aslinger. Palgrave Macmillan, 2013.

—. "From *Kuma\War* to *Quraish*: Representations of Islam in Arab and American Video Games." In *Playing with Religion in Digital Games*, edited by Heidi Campbell and Gregory Price Grieve. Indiana University Press, 2014.

Šisler, Vít and Ebrahim Mohseni. "Revolution Reloaded: Spaces of Encounter and Resistance in Iranian Video Games." In *Place, Space, and Mediated Communication: Exploring Context Collapse*, edited by Carolyn Marvin and Hong Sun-ha. Routledge, 2017.

Tawil-Souri, Helga. "The Political Battlefield of Pro-Arab Video Games on Palestinian Screens." *Comparative Studies of South Asia, Africa and the Middle East* 27.3 (2007).

Wamda. "Tamatem raises $ 2.5M to localize mobile games for the MENA market." *Wamda*, 2 February 2018, https://www.wamda.com/2018/02/tamatem-raises-25m-localize-mobile-games-mena-market.

Zuckerman, Ethan. "Meet the Bridgebloggers." *Public Choice* 134 (2008).