International Journal of Communication 11(2017), 3857–3879 1932–8036/20170005

Video Games and the Asymmetry of Global Cultural Flows: The Game Industry and Game Culture in Iran and the Czech Republic

VÍT ŠISLER[1]
JAROSLAV ŠVELCH
JOSEF ŠLERKA
Charles University, Czech Republic

Video games are a global phenomenon that pervades much of society irrespective of age, gender, or social status. The global video game culture is inherently asymmetrical, with games produced in particular regional centers dominating the markets. As a result, local video game production and consumption are intrinsically hybrid cultural practices that accommodate cross-cultural encounters. This article analyzes the personal, institutional, and cultural dimensions of video game production and consumption in two increasingly important, yet understudied, regions: Eastern Europe and the Middle East. It uses case studies on the Czech and Iranian gaming scenes as examples. Beyond the politico-economic aspects of video game production, the article empirically analyzes the manifestation of Czech and Iranian gaming cultures on social networking sites and their connections to global game culture. It examines the audiences of global, Iranian, and Czech gaming sites on Facebook and explores their similarities, differences, and affinities through normalized social distance computed based on their fans' likes. Overall, the article aims to offer a more nuanced picture of game cultures across diverse global contexts.

Keywords: video games, gaming culture, hybridization, Iran, Czech Republic, social networking sites

Video games are a global phenomenon that pervades much of society irrespective of age, gender, or social status. More than 2 billion people worldwide play video games regularly on consoles, PCs, and mobile devices (Newzoo, 2016). Video games also drive economic growth. Global revenues for the gaming industry were estimated at US$99.6 billion in 2016 (Newzoo, 2016). As Shaw (2010) puts it, video games permeate education, social functions, family interactions, and workplaces; they are played by "many if not all ages, genders, sexualities, races, religions and nationalities" (p. 416).

Vít Šisler: vsisler@gmail.com
Jaroslav Švelch: jsvelch@gmail.com
Josef Šlerka: josef.slerka@gmail.com
Date submitted: 2016–08–13

[1] This study was partially supported by the Faculty of Arts of Charles University programs Progres Q15 and Primus/Hum/03.

Copyright © 2017 (Vít Šisler, Jaroslav Švelch, and Josef Šlerka). Licensed under the Creative Commons Attribution Non-commercial No Derivatives (by-nc-nd). Available at http://ijoc.org.

At first glance, video games seem to be an eminent example of cultural globalization. They are inherently transnational by virtue of their industrial, textual, and player practices (Aslinger & Huntemann, 2013). They transcend national boundaries and migrate between cultures (Aslinger & Huntemann, 2013). Similarly, video game scholarship is seemingly an example of a globalized academic endeavor. Most of its output, as well as its objects of study, are in English. The latter has become the lingua franca of both games studies and the global gaming industry (Švelch, 2013a). This furthermore contributes to the illusion that video games are a "homogenous phenomenon hovering weightlessly in a culturally undefined space, independent of local contexts" (Švelch, 2013a, p. 164).

Video games constitute a "global cultural industry" (Kerr, 2006). However, despite the increasingly global nature of game development, the industry is controlled by a relatively small number of corporations headquartered in the United States and Japan. In the last decade, these transnational game corporations have increasingly established branch offices in Canada, Eastern Europe, and China and acquired successful production studios in dispersed locations (Kerr, 2013). As a result, the global video game culture is inherently asymmetrical, with games produced or coproduced in particular regional centers (North America, Western Europe, Australia, Japan, South Korea) dominating the markets.

Nevertheless, as Appadurai (1990) reminds us, the global cultural economy constitutes a complex, overlapping, disjunctive order, which cannot be fully understood in terms of "center-periphery models"—even those that "might account for multiple centers and peripheries" (p. 6). Video games are spaces of exploration; their reliance on player activity to become "finished" texts calls for an analysis of the particularities of play, including local cultural, political, and social context (Aslinger & Huntemann, 2013). Until recently, research on the social and cultural aspects of video games tended to focus on the traditional centers of the video game industry and user consumption, while the transnational flows of gaming cultures (and their local peculiarities) remained underexplored (cf. Aslinger & Huntemann, 2013; Hjorth & Chan, 2009).

Conversely, we perceive video games as "hybrid media texts" that result from industry practices such as coproduction, format adaptation, and localization (Kraidy, 2005, p. viii). Local video game development weaves together diverse, contradictory processes: global cultural flows, media policies of nation-states, the visions and engagements of private entrepreneurs, and migration and appropriation of global game genres. As a result, video game production and consumption are intrinsically hybrid cultural practices that accommodate cross-cultural encounters.

In this article, we use Kraidy's (2005) concept of "critical transculturalism" to examine video games as vehicles for the newly emerging opportunities and vulnerabilities that accompany disjunctures in global cultural flows. We focus on the personal, institutional, and cultural dimensions of video game production and consumption in two increasingly important, yet understudied, regions: Eastern Europe and the Middle East. We use case studies on the Czech and Iranian gaming scenes as examples. Both countries have been entangled in complex relationships with more influential centers of game development, yet both have a rapidly emerging game industry, a history of independent game development, and national gaming media contributing to the creation of a specific game culture. Beyond the politico-economic aspects of video game production in Iran and the Czech Republic, we empirically

analyze the manifestation of Czech and Iranian gaming cultures on social networking sites and their connections to global (mainly North American and Western European) cultures for video game consumption. In particular, we examine the active audiences of global, Iranian, and Czech gaming sites on Facebook and explore their similarities, differences, and affinities through normalized social distance computed based on their fans' likes. More generally, we aim to offer a more nuanced picture of game cultures across diverse global contexts.

Theoretical Background

For this study, we use *video games* as an umbrella term that refers to a broad range of digital games regardless of the hardware platform on which they operate. As such, this term includes, but is not limited to, computer games, console games, and mobile games.

Similarly, we understand the term *game culture* rather generally as a system of meaning organized around games and playing (Mäyrä, 2008, p. 28). In this sense, particular local or national game cultures can be interpreted as "groups of people who have some practices, values and interests in common and who form through their interaction a distinct group within a larger culture" (p. 25). We specifically include game magazines and their social networking sites in our analysis of game cultures in Iran and the Czech Republic. As pointed out by Consalvo (2009) and Kirkpatrick (2012), the specialist press has played an important role in the development of the culture around games. Game magazines have influenced the discourse about the emerging medium and mediated audiences' norms, values, and preferences. Today, the social networking sites of game magazines and websites are important shared spaces, where local game cultures are negotiated and constructed.

Video game development and consumption are inseparable parts of global cultural flows. As Appadurai (1990) argues, global cultural processes are products of "the infinitely varied mutual contest of sameness and difference on a stage characterized by radical disjunctures between different sorts of global flows and uncertain landscapes created in and through these disjunctures" (p. 17). The resulting configurations of cultural experiences and cultural forms are "quintessentially hybrid" (Said, 1994, p. 58). In other words, as Kraidy (2005) puts it, hybridity "is the cultural logic of globalization" (p. 148).

As an emergent phenomenon that eludes easy classification, "hybridity poses a challenge to empirical research on media reception and to analyses of media texts" (Kraidy, 2005, p. viii). Instead of the dualistic conceptual frameworks of "cultural imperialism" (Schiller, 1969; Tunstall, 1977) or "cultural globalization" (Appadurai, 1990; Featherstone, 1994; King, 1991), we have adopted Kraidy's framework of "critical transculturalism," which anchors analyses of cultural hybridity in concrete politico-economic considerations. The critical transculturalism approach focuses on power in intercultural relations by "integrating both agency and structure in international communication analysis" (Kraidy, 2005, p. 149). Whereas cultural imperialism focuses on the production and distribution stages of the media communication process, and cultural pluralism emphasizes message and reception, critical transculturalism "takes a more integrative approach that considers the active links between production, text, and reception in the moment of cultural reproduction" (Kraidy, 2005, p. 149).

Critical transculturalism enables analyses of the communication aspects of cultural mixture while reflecting "the importance of the politico-economic context in which hybrid media programs are created and consumed" (Kraidy, 2005, p. viii). In accordance with Kraidy (2005), we acknowledge that it is imperative "to situate every analysis of hybridity in a specific context where the conditions that shape hybridities are addressed" (p. vi).

It is within this framework that we examine the structural forces—political, economic, regulatory, and legal—that influence video games' production and consumption hybridity in Iran and the Czech Republic. In particular, our research questions are as follows: How do structural forces shape transculturalism and hybridity in Iranian and Czech game cultures, and how do they influence current game development? How is the hybrid nature of these cultures manifested in user preferences of game magazines on social networking sites?

Method

The descriptive analyses of video game production and consumption in Iran and the Czech Republic are, to some extent, based on our previous work (Šisler, 2013a, 2013b; Švelch, 2013a, 2013b), which we have revisited and systematized in a new comparative framework. The analyses stem from fieldwork, interviews with game developers, textual analysis of game magazines, content analysis of video games, and secondary research. We have employed a standardized framework for descriptive analysis in every case study, focusing on hardware platforms, game software distribution and production, contemporary game development, and gaming media.

The exploratory study on social networking sites for global, Iranian, and Czech gaming magazines uses a quantitative method called normalized social distance (NSD), developed by Šlerka (2013) and detailed by Šlerka and Šisler (in press). For the sake of brevity, we describe only key features of NSD here and refer to the above-mentioned studies for details. In a nutshell, NSD is a formally defined method that calculates the distance between different social groups based on intentional stances expressed through group members' activities on social networking sites—in our case, likes distributed by users on Facebook pages. The resulting number expresses how far or close various sites' audiences are to one another. Theoretically, NSD stems from McPherson, Smith-Lovin, and Cook's (2001) concept of homophily in social networks and Cilibrasi and Vitányi's (2010) concept of normalized Web distance.

NSD relies on publicly available "post likes" (i.e., likes that an individual gives to concrete posts published by the page in question) rather than "page likes" (i.e., likes that an individual gave to a page as a whole). This methodological distinction is based on the assumption that, while a page like could represent a broad variety of intentional stances (ranging from support of the ideas expressed on the page to the intention just to be informed about the page's activity), a post like is more likely an expression of affirmation for a concrete post (see Wallace, Buil, de Chernatony, & Hogan, 2014).

The calculation of NSD proceeded as follows:

1. We identified 35 Facebook pages for global (n = 18), Czech (n = 8), and Iranian (n = 9) gaming magazines. We define "global gaming magazines" as gaming magazines published in English (primarily in the United States and the United Kingdom) that play an influential role in the formation of global game culture by providing game news and reviews to an international audience. The global magazines were selected on the basis of multiple game industry experts' opinions. We included in our data set all the Czech and Iranian game magazines that have a presence on Facebook.

2. We downloaded all the publicly available posts (n = 8,356) posted by administrators of the above-mentioned pages in 2016 (i.e., January 1 to December 31, 2016).

3. We downloaded the complete list of IDs of users who liked at least one of these posts. In total, we downloaded the IDs of 1,447,111 unique users, who distributed 3,270,058 likes among the 8,356 posts.

4. Based on these data, we computed the NSD of all these pages to one another (detailed formulae in Šlerka, 2013; Šlerka & Šisler, forthcoming).

The result is a bimodal network with a relatively low density that can be examined using traditional exploratory techniques such as hierarchical cluster analysis, multidimensional scaling, and principal component analysis. As such, NSD provides an opportunity for "distant reading" of social networking sites, enabling us to represent formally and analyze the structural aspects of big social data.

Game Development and Game Culture in the Czech Republic

Throughout its history, Czech game culture has been entangled in complex relationships with more influential centers of game development and gaming communities. Until 1989, the Czech Republic was a part of the federal Czechoslovak Socialist Republic, a satellite country of the Soviet Union and therefore divided from those centers by the so-called Iron Curtain. This division limited not only movement of citizens but also the exchange goods and knowledge. After the Velvet Revolution in 1989, the country opened up economically and culturally to the West, marking the beginning of its transformation into a market economy and pluralist democracy. Understanding developments in the socialist and transformation eras is key to analysis of the hybrid nature of the Czech game culture.

Hardware Platforms

In the 1980s, access to computer hardware and software was limited due to economic and political isolation behind the Iron Curtain, limited domestic production, and the virtual impossibility of private enterprise. At the same time, state institutions provided financial and infrastructural support for

hobby computing, programming, and youth computer clubs as part of the policies of the so-called scientific-technological revolution (see Kalousek, 1983).

Although computer specialists could already play games on mainframes and minicomputers in the 1970s, it was not until the early 1980s that the first 8-bit microcomputers started to make their way into local hobby circles and people's homes. Most of these early machines were purchased by the few Czechoslovak citizens that were allowed to travel beyond the Iron Curtain. The British Sinclair ZX Spectrum soon emerged as the most prominent platform, followed by 8-bit Atari computers. Despite several attempts, domestic manufacturers failed to provide a Czech or Slovak alternative to Western platforms, except for clones of the ZX Spectrum.

Video game consoles did not take root in the country for a combination of reasons. First, state-sponsored clubs only supported activities that contributed to the national economy. Whereas computers could also theoretically be used in the industry, video game consoles were purely entertainment machines, which disqualified them in the eyes of computer club officials. Second, import and sale of game cartridges was impossible due to import limitations and lack of a retail network.

Although Czech computing and gaming enthusiasts were using Western-designed computers, they did so in the local political-economic context. The partial isolation behind the Iron Curtain created self-reliant local hobby computing and gaming cultures that were centered on state-sponsored computer clubs. This isolation, along with a language barrier, meant that local computer users were mostly connecting to other local users and—except for a small group of more cosmopolitan gatekeepers—did not have direct access to Western sources.

In the 1990s, the 8-bit microcomputers gradually gave way to 16-bit and 32-bit machines, among which IBM PC-compatibles soon emerged as a new standard gaming platform. The dominance of computer-based platforms has remained a defining feature of the Czech game culture to this day, and the PC is the platform of choice for Czech players (Ipsos Media, 2012). Nevertheless, the popularity of consoles—Sony PlayStation, in particular—is rising. This suggests that the local game culture is becoming more similar to the United States and Western Europe in terms of platform use.

Game Software Distribution and Production

By the latter half of the 1980s, tens of thousands of people owned microcomputers (Švelch, 2010). There was no software market; rather, software—mostly on cassette tapes (which were replaced by floppy disks in the 1990s)—was shared unofficially through an efficient informal distribution network. Most of the traffic consisted of unauthorized copies of foreign-made games (Švelch, 2010). In the 1980s, the British influence was particularly strong thanks to the proliferation of the ZX Spectrum. Despite the immense political influence of the Soviet Union and the promotion of Soviet culture by national media, its impact on microcomputer software and games was negligible. Transition to the PC platform in the 1990s brought in more influences.

Before 1989, domestic creative efforts were motivated not by monetary gain, but by the desire to gain respect within the hobby computing community, to communicate and connect to other people, or to express one's opinions or sentiments (Švelch, 2013b). Among the earliest preserved titles is the 1985 Czechoslovak text adventure, *Indiana Jones and the Temple of Doom*, by František Fuka, a teenage computer hobbyist at the time. Although written in Czech for a local audience, the game followed the game design conventions utilized in the Western text adventure genre and drew from Western popular culture. Soon, more similar games, both by Fuka and others, followed—many of which incorporated local themes. The establishment of the domestic *textovka* (the Czech term for "text-based game") as a local hybridized version of the international genre was a crucial step in the history of Czech gaming culture.

After the Velvet Revolution, the market opened and private enterprise was reintroduced into the country. Gradually, both legal retail—mostly selling imported titles—and commercial domestic production started to take off. Copyrights for software works were introduced in 1990, rendering informal distribution illegal. Despite a tradition of informal distribution, piracy diminished to a level more common in Western Europe by the 2010s (Business Software Alliance, 2016). While Czech players mostly played Western games, they sometimes did so in localized versions. Fan localizations started to appear throughout the 1990s. In the 2000s, several major publishers started consistently localizing games by providing Czech subtitles and sometimes even dubbing.

Czech developers initially targeted a domestic audience, using the Czech language and settings. In the early 2000s, domestic developers started to orient themselves toward the global market and international publishers (Bach, 2012). While some studios released minor titles or were contracted to work on international licenses, two larger studios, Bohemia Interactive and Illusion Softworks, managed to launch two globally successful original franchises: *Operation Flashpoint* (starting in 2001) and *Mafia* (2002). The *Operation Flashpoint* series consists of first-person shooter tactical games, revolving around fictitious Cold War conflicts between NATO and Warsaw Pact forces. *Mafia* is a third-person action adventure video game developed by Illusion Softworks (now 2K Czech). Set during the 1930s in the fictional U.S. city of Lost Heaven, the game incorporates parts of San Francisco and Chicago from the same period. The *Operation Flashpoint* and *Mafia* series poignantly illustrate two different, yet simultaneous, trends in contemporary Czech video game development. The former was inspired by Czech or Eastern European history and culture, while the latter took its inspiration from the North American cultural canon.

During the 2000s, larger domestic companies were in part dependent on publishing deals with British and U.S. companies, and therefore on global capital. While Illusion Softworks was purchased by the multinational company 2K Games and renamed to 2K Czech during the production of *Mafia II*, Bohemia Interactive eventually turned to self-publishing after losing the *Operation Flashpoint* franchise to CodeMasters. Since the late 2000s, digital distribution and later crowdfunding have allowed many developers to sidestep publishers. Yet this has created new dependencies on and financial relationships with platform owners (like Valve or Apple) and crowdfunding portals.

Contemporary Game Development

In 2015, the Czech Republic hosted at least 30 companies and 100 development studios, and teams of various sizes and produced more than 30 titles (Kopecký, 2016; Žáková, 2015). There is currently no national policy regarding the regulation and/or control of the video game industry in the Czech Republic. Most Czech game development companies voluntarily adhere to the international standards of game rating (PEGI, ESRB), because it simplifies acceptance of games on the global market. There is currently no direct support or subsidy program for Czech video game development, although the government plans to support the digital creative industry as a whole in the next decade.

Although they aim to attract an international audience, many of the recent successful Czech titles preserve a degree of national specificity—either in design, visual style, or settings. Following the tradition of *Operation Flashpoint*, many of the recent successes in the local gaming industry are titles that feature complex, stat-based gameplay or high degrees of realism. These are traits usually associated with PC rather than console gaming cultures. SCS Software has gained prominence as the producer of the *Euro Truck Simulator* and *American Truck Simulator* games. Keen Software House has sold around 1.5 million copies of the physical puzzle sandbox game *Space Engineers*, and Wube Software's strategy/puzzle factory construction game *Factorio* seems to be poised for a similar degree of success. Warhorse Studios, a company led by veterans of Czech game industry, received generous crowdfunding support for its ambitious realistic medieval role-playing game *Kingdom Come*, which takes place in early-15th-century Bohemia.

Beyond content, a number of contemporary Czech games maintain a link to national specificity in their design and artistic expression. For example, Amanita Design has released several critically acclaimed point-and-click games such as the *Samorost* series, *Machinarium*, and *Botanicula*. Inspired by classical Czech animation from the 1960s and 1970s, these titles offer detailed, playful visuals and puzzles.

Overall, trends toward digital distribution, crowdfunding, and mobile technologies have reinvigorated the Czech gaming industry, with some journalists comparing the contemporary Czech independent game scene to the "new wave" in Czechoslovak cinema of the 1960s. This is due to the emergence of new ideas and new talent (Průša, Bach, & Poláček, 2016). Nevertheless, much of this production builds on existing traditions. The mechanical and technological sophistication of recent titles follows the hobby computing tradition and draws talent from high-quality university programs in computer science, while the visual style adheres to the domestic tradition of arts and crafts. Nevertheless, the function of these domestic influences has changed over time. In the 1980s and 1990s, domestic inspirations were employed because of their familiarity for the domestic audience, whereas contemporary games tend to use them to distinguish local-made games from the globalized aesthetics of international studios.

Gaming Media

All prominent Czech magazines and gaming media were original domestic titles (i.e., not licensed from abroad) written by members of local gaming communities. Thus, they contributed to the creation of a specific game culture. Before 1989, no computing or gaming magazines were published in Czechoslovakia with the exception of hobby club newsletters and general electronics magazines, which tended to dismiss games as frivolous and unproductive (*Mikrobáze*, 1985). The early to mid-1990s saw the launch of several gaming magazines, such as *Excalibur* (launched in 1991), *Bit* (1991), *Score* (1994), and *Level* (1995). The influence of *Excalibur* was especially significant, because it set the tone and discourse for many of its successors. Its irreverent, playful, and sometimes transgressive style, as well as its frequent glorification of hard-core and even excessive gaming, can be interpreted as a reaction to the previous decade, when the voices of players were effectively silenced. Throughout the 1990s, publishing a gaming magazine was a relatively lucrative business, and major periodicals such as *Score* and *Level* gathered enthusiastic fan support. Both magazines continue to be published today, forming a core of the country's gaming journalism.

We can conclude that, although Czechs have mostly played foreign games, the information and evaluation of these titles has usually been filtered through local mediators, whose crucial role in game culture had already been established in the 1990s transformation era. Magazines have served as important tastemakers, reinforcing the popularity of particular strands of mostly PC-based game culture. Czech gaming media also support the sense of national identity among local developers by reporting widely on Czech games and cohosting the annual Czech Game of the Year award ceremony. Overall, Czech game culture is an example of a hybrid game culture that relies on other centers of game development, but sets locally specific patterns of development and reception.

Game Development and Game Culture in Iran

Similar to the case of the Czech Republic, Iranian game culture has been entwined, from its beginning, in complex relationships with more influential centers of game development. Moreover, the emergence of game culture in Iran chronologically corresponds with the Islamic Revolution in 1979 and the Iran-Iraq war in 1980–1988 and has been significantly influenced by these events.

The Islamic regime that came to power after 1979 defined itself in a predominantly cultural sense (Sreberny & Khiabany, 2010). The twin aims of the cultural policy of the new state were based on destruction of an imposed Western, alien culture and its replacement with a "dignified, indigenous and authentic Islamic culture" (p. 24). As a result, the media landscape in Iran is subject to control and censorship by the state. Parallel to this, there is regulation of cultural production.

The Ministry of Culture and Islamic Guidance must approve all video games prior to their release. Since 2006, this function has been carried out primarily through the Iran Computer and Video Games Foundation (ICVGF). The aim of ICVGF is twofold: to boost economic growth in the video game industry segment and to subsidize the development of games promoting Iranian and Islamic values. The Ministry of Culture and Islamic Guidance often removes controversial elements from games during the preapproval

process. As a result, video game production in Iran is subject to "friction and competition between factions within the regime, the institutional interests of various agencies, and the tensions within the state as well as between the state and the private sector" (Šisler, 2013a, p. 186).

Hardware Platforms

The first computer that appeared in Iran was the IBM-1620, installed in the National Iranian Oil Company in 1962 (Mohammadifar, 2011). By 1977, there were more than 600 computers in Iran, most of them manufactured by U.S. computer companies such as IBM and Electronic Data Systems. Later, the increasing availability of inexpensive personal computers and Persian word-processing software contributed to an increase in imports of computer parts, which were assembled in Iran.

In 1980, the M-1 minicomputer was manufactured at the College of Computer Programming and Application. In 1984, the Institute for Research in Communications introduced the Lāla microcomputer, which was later mass-produced (Mohammadifar, 2011). These domestic computers were rarely used for playing games.

The Atari VCS 2600 was among the first generation of game consoles that officially entered Iran. It was used by early Iranian gamers (Ahmadi, 2015). Today, partially due to economic sanctions, the most widespread gaming platform in Iran is the PC, with cheap parts imported form Southeast Asian markets.

Game Software Distribution and Production

Because of the limited number of games produced in Iran, early Iranian gamers were largely dependent on games of U.S. and European origin. As a result, game transnationalism and translocalism that constitutes hybrid gaming cultures emerged in the country. Early Iranian game culture consisted primarily of the consumption of Western games, albeit in new contexts and different social settings (Šisler, 2013b). The first Western video games appeared in Iran in the early 1980s, during the Iran-Iraq war. Early Iranian gamers describe how they gathered in front of the TV and played together with other kids when the war warning status was "white" (indicating a low probability of hostile attack) (Ahmadi, 2015, p. 271).

The first Iranian games were rather simple, such as the two-dimensional action games *Tank Hunter* (1996), *Cobra Operation* (1998), and *Rostam* (2000). Their audience was usually limited to designers' colleagues and friends. Most first-generation developers were students that produced their games as university projects (Ahmadi, 2015).

U.S. embargoes prohibited many software companies from doing legitimate business in Iran (Sreberny & Khiabany, 2010). This factor contributed to widespread software piracy in the country, which was helped by the fact that Iran is not a signatory to international copyright conventions. A typical American or European game can be bought for US$2 to US$5 in most Iranian cities. These games appear on the local market soon after their release in the United States or Europe. As a result, the younger

generation in Iran has easy access to global video game production, and Western video games have become part of the Iranian consumer culture.

In this process, translocal goods and ideas are transformed by their contextualization while the contexts themselves are transformed. As Peterson (2011) notes, certain forms of consumption in the Middle East are indexed as "the West" or "the global" and serve as valuable means for displaying cosmopolitan identity. This applies particularly to specific urban settings (such as North Tehran), where buying Western games and consuming Western gaming media could be part of displaying both cosmopolitan identity and class distinction.

Such encounters with global entertainment media production are not without problems. Religious and political authorities in Iran have repeatedly criticized foreign video games for explicit displays of sexuality, corrupting morals, and misrepresentations of Islam. Moreover, several U.S. games have been banned in Iran (Šisler, 2013b).

In the initial phase of video game development in Iran, there was an urge to present Iranian youth with alternative games that would reflect their culture, history, and religion more appropriately. Anchored in "authentic" memories and places, these games constitute responses to hegemonic spaces of representation created by the U.S. and European video game industry. Some of these "counterdiscourse" games that have been developed in Iran both by private producers and governmental agencies include *Special Operation*, *Resistance*, *Mir Mahna*, and *Black Years*. In the first-person shooter game *Special Operation*, the player takes on the role of a Special Forces commander, who is appointed to rescue an Iranian nuclear scientist that was kidnapped by U.S. security forces. This game is a clear response to the U.S. game *Assault on Iran*, in which players are sent to Iran to terminate its nuclear program. While appropriating *Assault on Iran*'s framework and game mechanics, *Special Operation* reverses its narrative (Šisler, 2013a). Recent examples of Iranian counterdiscourse games include a first-person shooter *Mir Mahna*, which takes place in the Persian Gulf occupied by the English and Dutch navy during the 17th century. The game puts the player into the role of a "gallant warrior," who leads his soldiers in a quest to save a rural girl imprisoned by Dutch soldiers and "drives out the occupants" (Espris, 2011). Such games emphasize the national aspect of the resistance, particularly when related to defending the nation against outside aggression by "imperial and neocolonial forces" (Espris, 2011).

Another important category of early Iranian video game production is educational games. Typically, these games aim at teaching the basic tenets of Islam or the history of Iran or they promote "positive and family values" (Šisler, 2013a). For example, the adventure game *Nouruz* teaches children about various aspects of Iranian culture and folklore; *My Homeland* deals with ancient Iranian history and archaeology; and *The Honor* retells the story of an Iranian national sports hero with an emphasis on moral values and fair play.

The counterdiscourse and educational game categories were mostly produced only in Persian and are directed at local markets. Yet many games are deliberately produced in English (or with English subtitles) and are marketed globally. The first Iranian three-dimensional video game was 2005's *Quest of Persia* by Puya Arts Software—an action adventure game dealing with Iran's history and culture. As the

authors state, the game should "help people understand Iran" (Šisler, 2013a, p. 179). Similarly, the educational adventure game *Nouruz* was also produced for a foreign audience so that "people can understand the Iranian culture and see that Iran has two thousand years of history" (Šisler, 2013a, p. 180).

Contemporary Game Development

In 2015, there were more than 100 companies and institutions active in different sectors of the video game industry in Iran (Ahmadi, 2015). Since *Tank Hunter*, Iranian game production has come a long way and has evolved in many aspects, bringing various interpretations of Islamic culture as well as Iranian history, mythology, literature, and popular culture into the realm of digital entertainment (Šisler, 2013b). Various actors with different interests and motivations have entered the field, ranging from individual visionaries struggling to realize their dreams and private entrepreneurs seeking economic interests to state agencies following national interests and political agendas. We are witnessing a highly complex, overlapping, and contested environment that encompasses state and private actors, local and global cultural flows, and supportive and contradictory processes.

Although some of the early games were produced with English subtitles, the game *Garshasp* (2010) by Fanafzar Sharif was "the first title with high enough quality to really make its way to the international market" (Ahmadi, 2015, p. 272). *Garshasp* is an action, role-playing game based on ancient Persian mythology, bringing to life the epic battles of the mythological hero, Garshasp. Beyond mild success on the global market, the game increased Iranian gamers' trust in local production. By July 2013, more than 250,000 copies of the game had been sold (Ahmadi, 2015).

The success of *Garshasp* and a few other games has inspired a new generation of Iranian developers and game designers who collaborate with global distribution platforms such as Steam, App Store, and Android Market. Such recent games include titles such as *Legends of Persia* (2013), *Awakening: Burning Ashes* (2013), and *Shaban* (2012).

Though contemporary game production in Iran is considerably multifaceted and diverse, many Iranian game producers share the concern that the culture is misrepresented in global video game production, and they strive to create authentic virtual representations of their country (Šisler, 2013b). The kind of authenticity that is constructed by locally developed Iranian video games takes different forms and stems from a wide variety of sources ranging from religion and politics to local histories, mythologies, and popular culture. Interviews with game designers provide firsthand accounts of the ways the notion of cultural authenticity affects game design. As Puya Dadgar, the lead designer of *Quest of Persia*, says: "With *Quest of Persia*, we wanted to show what the land of Persia is truly all about. *Quest of Persia* is one hundred percent Persian, from music to environments, up to characters" (Šisler, 2013a, p. 180). By the same token, Ahmadi (2015) argues that "Iran's ancient civilization and long national history have provided the largest and most enduring sources for the creation of interesting video game storylines" (p. 282).

Contemporary Iranian game producers face many challenges: most importantly, lax or nonexistent copyright protection and—until recently—an embargo on technology transfers and economic

sanctions. Beyond that, game producers have to cope with government regulation of cultural production and media control, which further complicates the question of authenticity. This is particularly problematic as a new set of actors—governmental agencies and the religious establishment—enter the arena of video game development. Iranian video games and their content are shaped by an official video game ratings authority for the Islamic world, which was established in 2010. The Entertainment Software Rating Association was founded by the United Arab Emirates–based Index Conferences and Exhibitions Organisation in close cooperation with the ICVGF (Boots-Faubert, 2010). According to Behrouz Minaei, the managing director at ICVGF, the rating system was designed with three considerations in mind: "culture, society and special values of Islam" (Boots-Faubert, 2010, para. 7).

Gaming Media

As in the Czech Republic, gaming magazines played an important role in the development of gaming culture in Iran. All the existing magazines are written by members of the local gaming communities and are not licensed from abroad.

The first Iranian video game magazine was *Bazinama*, published continually since 2002. It started as an independent initiative of a group of young video game enthusiasts. However, it soon matured to a full-fledged magazine that covers many aspects of the gaming culture, including casual games and game development. The magazine runs a popular video game portal for communication with its fans that currently has more than 100,000 users (Bazinama, 2017).

Donya ye Bazi was the first official gaming magazine in Iran established with the permission of Ministry of Culture and Islamic Guidance in 2005. The biweekly, Persian-language magazine was devoted to reviewing PC and console games and writing about different aspects of the gaming industry. One of the main goals of *Donya ye Bazi* was to support the Iranian game development industry. The magazine ceased publication in 2014.

Today, several printed gaming magazines, as well as their corresponding websites and social media pages, inform Iranian gamers about new foreign and domestic games. These magazines also influence their audiences' gaming tastes and habits.

Global and Local Game Magazines on Facebook: Social Network Analysis

The previous sections described the structural features that shape the hybrid video game cultures in Iran and the Czech Republic. Both in the Czech Republic and Iran, video game magazines and websites have played an important role in the development of culture around games and the formation of communities of players. These magazines supplied, and simultaneously filtered, information about foreign games for local audiences and guided video game discourse for local player communities. By doing so, these magazines transformed and contextualized what Peterson (2011) calls "trans-local goods and ideas" (p. 4) into local social and cultural practices.

Today, most of the video game magazines maintain their presence on social networking sites. Analyzing the structural interplays between audiences of these local magazines' social networking sites and their global counterparts helps us to further disentangle the hybrid cultural practices and cross-cultural encounters in the Iranian and Czech game cultures.

The following analysis presents an exploratory study on the social networking sites of global, Iranian, and Czech gaming magazines. In particular, we examine the active audiences of these sites on Facebook and explore their similarities, differences, and affinities through NSD computed based on their fans' likes. The main research question for our exploratory study is as follows: How is the hybrid nature of the Czech and Iranian game cultures manifested in user preferences on social media? In particular, we examine how close or far from one another these pages on Facebook are. How are these pages clustered? Does the nationality of these pages play a role in the way they are clustered?

Results

The results of NSD can be visualized in several ways. For the sake of this study, we have adopted graph visualization and hierarchical clustering. First, the graph visualization in Figure 1 depicts the Facebook pages of global, Czech, and Iranian gaming magazines and the proximities (or distances) of their audiences. The nodes in the graph denote individual pages, and the links denote significant proximity in terms of NSD, namely, NSD(x,y) $\leq$ 0.475.

Figure 1. Graph of global, Czech, and Iranian gaming magazines' pages on Facebook based on the normalized social distance (NSD) metric, NSD(*x,y*) ≤ 0.475.

Second, the graph visualization in Figure 2 depicts the same data set, where we have set lower significant proximity in terms of NSD, that is, NSD(*x,y*) ≤ 0.425).

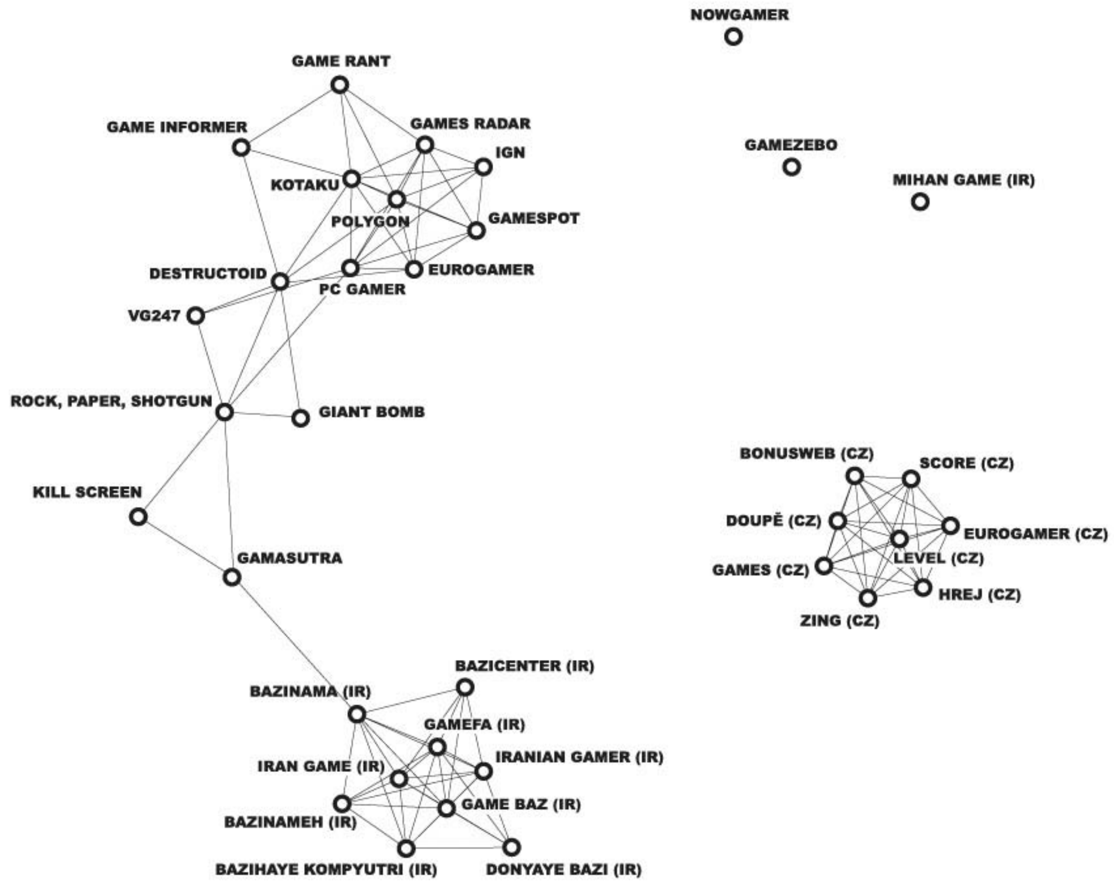

Figure 2. Graph of global, Czech, and Iranian gaming magazines' pages on Facebook based on the normalized social distance (NSD) metric (NSD(x,y) ≤ 0.425).

Third, a cluster dendrogram in Figure 3 depicts the gaming magazines' pages on Facebook in a tree diagram illustrating the arrangement of the clusters produced by hierarchical clustering.

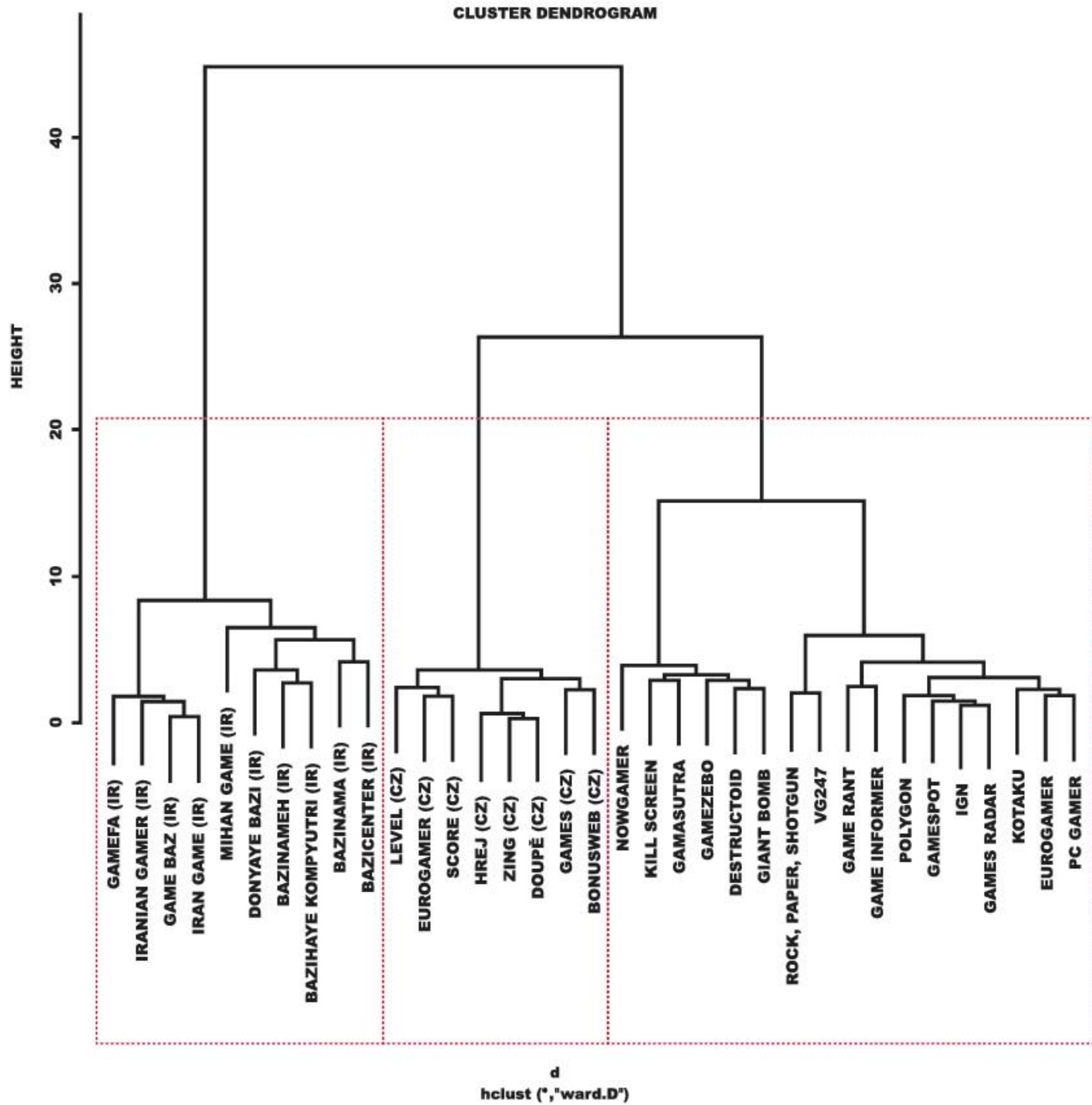

Figure 3. Dendrogram of global, Czech, and Iranian gaming magazines' pages on Facebook based on the normalized social distance (NSD) metric.

Analysis

The NSD analysis (both graph visualization and cluster analysis) reveals several key findings about the global, Czech, and Iranian gaming magazines' pages on Facebook. First, there exist several tightly connected clusters of gaming magazines' pages on Facebook, whose audiences are significantly close to one another. The users located in these clusters enjoy similar content and rarely reach out to different clusters. Importantly, these clusters are divided along national and linguistic lines, creating distinctively separated clusters of global, Czech, and Iranian gaming magazines. The clusters are most clearly visible via the hierarchical clustering (see Figure 3).

Second, the cluster of global gaming magazines is the dominant one, with the active audiences of every other cluster reaching toward it to some extent. This confirms the important role the gaming media published in English play in Czech and Iranian video game cultures. Nevertheless, the connections from every national cluster to the English one is visible only when the threshold for NSD is set to 0.475 and smaller—that is, to rather large granularity (see Figure 1). When the threshold is set to 0.425 and smaller—that is, to a finer granularity—the single, seemingly unified network starts to disintegrate into separate national clusters (see Figure 2). In other words, there are far fewer connections between different national clusters than between individual pages within each national cluster. In particular, the Czech gaming magazines' audience is rather isolated and tends to rely more heavily on local media, while the Iranian gaming audience is significantly closer to the global English gaming media and share their content.

Third, the data exhibit many of the broad structural features of large social networks, including a "giant component" (Easley & Kleinberg, 2010, p. 57)—a single connected component containing most of the individual nodes in the network. We can also identify several "local bridges" (Easley & Kleinberg, 2010, p. 51) between the global and national clusters. In the case of the Czech gaming scene, the local bridge consists of a single significant audience overlap between the pages of the global gaming page *Gamasutra* and Czech gaming magazine *Level*. In the case of the Iranian gaming scene, the local bridge can be found between *Gamasutra* and the Iranian magazine *Bazinama* (see Figure 2). *Gamasutra*, with its multiple local bridges, spans a "structural hole" in the translocal game culture modeled by our case study—"the empty space in the network between two sets of nodes that do not otherwise interact closely" (Easley & Kleinberg, 2010, p. 67). *Gamasutra*'s unique linking role can be explained by its focus on industry reporting. It offers detailed and often exclusive insider reports on the game industry that some video game enthusiasts may have trouble finding in national media.

Discussion

As Kraidy (2005) argues, cross-cultural encounters are historically pervasive, to the extent that a "self-enclosed culture is in fact a historical aberration" (p. 3). Today, video games constitute a global cultural industry that transects national boundaries and migrates between cultures. Nevertheless, the global video game culture is deeply asymmetrical, with games originating in certain regional centers dominating markets. As a result, what emerges from local video game production and consumption is cultural translocalism and hybridization.

This article examined video game development and game cultures in the Czech Republic and Iran. Our aim was to analyze the cultural and technological processes and flows influencing local game development and the role of local and global gaming magazines in the development of local game cultures. The spaces of Iranian and Czech game development and consumption include diverse, contradictory processes: global cultural flows, national regulatory frameworks, visions and engagement of private entrepreneurs, and migration and appropriation of global game genres. These seemingly heterogeneous processes are interdependent; they overlap, support, and disrupt one another.

Several concluding remarks can be ventured from these disjunctures and flows: First, Czech and Iranian game cultures are entangled in complex relationships with more influential centers of game development—particularly the United States and Western Europe. In the Czech Republic, game development companies operate with recognizable success on the global market and have strong ties to U.S. and British game publishers. In Iran, foreign capital is still rather slow to invest in video game development, given political and economic embargoes, high levels of piracy, and the (real or perceived) instability of the region. Nevertheless, in both countries, local video game developers produce "hybrid genres"—domesticated versions of successful U.S. and Western European game formats. These hybrid genres appropriate the patterns and genre conventions set by foreign games and refashion them by using distinctive local content and maintaining links to national history, religion, and culture. As such, video game production in both the Czech Republic and Iran resembles the "coral pattern" of indigenization, described (in a different context) by Lee (1991) as cultural production whose content is changed, but whose form is untouched. Both cultures are characterized by the popularity of open and low-barrier platforms among both players and developers, especially the Windows PC as opposed to consoles, whose publishing ecosystems are more tightly controlled by hardware manufacturers.

Second, although there is a prevailing notion of video games as a dematerialized and decontextualized global phenomenon, local video game development and game cultures are fundamentally shaped by local contexts, including regulatory frameworks and national media policies. This is particularly relevant to Iran, where video game production is subject to friction and competition between factions within the regime, the institutional interests of various agencies, and the tensions between the state and the visions and engagement of private entrepreneurs. In other words, the state, even as "its economic prerogatives have been frittered away under globalization, retains most of its political, legal, and regulatory power" (Kraidy, 2005, p. 156). As such, it is necessary to reassess the role of the state in international communications and to "explore the implications of this role for the issue of cultural hybridity" (p. 156). Even in the case of the Czech Republic, where there are no state regulatory policies regarding video games, local game culture has been distinctively shaped by the political, economic, and social context of the socialist and transformation eras.

Third, in both countries, gaming magazines played a crucial role in the formation of local game culture, simultaneously providing and filtering information about foreign games and enabling the emergence of local gaming cultures. The social network analysis of global, Czech, and Iranian gaming media pages reveals structural insights about contemporary global information flows in video game culture. While global English gaming media are dominant and consumed by some parts of national audiences, most local players in Iran and the Czech Republic rely on national gaming media published in

their own language. Czech gaming magazines' audiences seem to be more isolated and tend to rely more heavily on local media, while the Iranian gaming audience shows relatively more overlaps with global English gaming media. The difference can be explained by the fact that, in the Czech Republic, a strong national gaming press had developed already in the 1990s, before players could routinely access international online sources.

On the one hand, we can argue that players in the Czech Republic and Iran play games produced by a globalized industry. On the other hand, they are likely to make sense of these games based on framings offered by local sources. Their genre preferences or play styles may reflect specific norms that are circulated within their respective cultures by the national gaming journalism. The dependence on national media is thus one of the mechanisms that maintain local game cultures. Although local game developers are necessarily partially cosmopolitan due to their connections to the global industry, they are also largely immersed in these local cultures and reflect them—both unintentionally and purposefully—in their work.

Finally, in line with Kraidy (2005), we acknowledge that the concept of cultural hybridity must be "operationalized" (p. viii) in case studies and its analyses anchored in concrete politico-economic considerations. The theoretical framework of critical transculturalism proved particularly viable in situating video games in their societal environment and enabling us to disentangle various "links, processes, and effects" (Kraidy, 2005, p. 7) among video game production and consumption and social, political, and economic forces. Using case studies on the Czech and Iranian game scenes as examples, we aimed to offer a more nuanced picture of gaming across diverse global contexts, where the local and the global are not necessarily opposites, but rather are mutually constitutive. These are also contexts where globalization and localization, cosmopolitanism and nationalism, and traditionalism and modernization compete and coexist.

References

Ahmadi, A. (2015). Iran. In M. J. P. Wolf (Ed.), *Video games around the world* (pp. 271–291). Cambridge, MA: MIT Press.

Appadurai, A. (1990). Disjuncture and difference in the global cultural economy. *Public Culture*, *2*(2), 1–24.

Aslinger, B., & Huntemann, N. B. (2013). Introduction. In N. B. Huntemann & B. Aslinger (Eds.), *Gaming globally: Production, play and place* (pp. 1–15). New York, NY: Palgrave Macmillan.

Bach, M. (2012). Historie českých a slovenských her a týmů [History of Czech and Slovak video games and teams]. In *Game industry 2* (pp. 230–240). Prague, Czech Republic: D.A.M.O.

Bazinama. (2017). *Bazinama*. Retrieved from http://bazinama.com/

Boots-Faubert, C. (2010, November 30). Islamic video game rating system announced. *Gaming Update.* Retrieved from http://www.gamingupdate.com/articles/5/Islamic-Video-Game-Rating-System-Announced

Business Software Alliance. (2016). *Seizing opportunity through license compliance: BSA global software survey May 2016*. Washington, DC: Author. Retrieved from http://globalstudy.bsa.org/2016/downloads/studies/BSA_GSS_US.pdf

Cilibrasi, R. L., & Vitányi, P. M. B. (2010). Normalized Web distance and word similarity. In N. Indurkhya & F. J. Damerau (Eds.), *Handbook of natural language processing*. Boca Raton, FL: CRC Press.

Consalvo, M. (2009). *Cheating: Gaining advantage in videogames*. Cambridge, MA: MIT Press.

Easley, D., & Kleinberg, J. (2010). *Networks, crowds, and markets: Reasoning about a highly connected world*. New York, NY: Cambridge University Press.

Espris. (2011). *Mir Mahna*. Tehran, Iran: Author.

Featherstone, M. (Ed.). (1994). *Global culture: Nationalism, globalization, and modernity*. London, UK: SAGE Publications.

Hjorth, L., & Chan, D. (Eds.). (2009). *Gaming cultures and place in Asia-Pacific*. New York, NY: Routledge.

Ipsos Media. (2012). *Videogames in Europe: Consumer study*. Brussels, Belgium: ISFE.

Kalousek, L. (1983). Náš interview—s Miroslavem Hášou a Štefanem Kratochvílem [Our interview—with Miroslav Háša and Štefan Kratochvíl]. *Amatérské Radio* [Amateur radio], *Řada A*, *32*(7), 241–242.

Kerr, A. (2006). The business of making games. In J. Rutter & J. Bryce (Eds.), *Understanding digital games* (pp. 36–57). London, UK: SAGE Publications.

Kerr, A. (2013). Space wars: The politics of games production in Europe. In N. B. Huntemann & B. Aslinger (Eds.), *Gaming globally: Production, play and place* (pp. 215–231). New York, NY: Palgrave Macmillan.

King, A. D. (Ed.). (1991). *Culture, globalization, and the world-system*. Binghamton, NY: State University of New York at Binghamton.

Kirkpatrick, G. (2012). Constitutive tensions of gaming's field: UK gaming magazines and the formation of gaming culture 1981–1995. *Game Studies*, *12*(1). Retrieved from http://gamestudies.org/1201/articles/kirkpatrick

Kopecký, L. (2016). *Český herní průmysl* [Czech game industry]. Prague, Czech Republic: Creative Europe Desk MEDIA.

Kraidy, M. (2005). *Hybridity, or the cultural logic of globalization*. Philadelphia, PA: Temple University Press.

Lee, P. S. N. (1991). The absorption and indigenization of foreign media cultures: A study of a cultural meeting point of the East and West: Hong Kong. *Asian Journal of Communication*, *1*(2), 52–72.

Mäyrä, F. (2008). *An introduction to game studies: Games in culture*. London, UK: SAGE Publications.

McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, *27*, 415–444.

Mikrobáze. (1985). Malá úvaha nejen pro uživatele ZX Spectra [An essay for (not only) ZX Spectrum users]. *Mikrobáze*, *1*(1), 28–30.

Newzoo. (2016). *Global games market report*. Retrieved from https://newzoo.com/solutions/revenues-projections/global-games-market-report/

Peterson, M. A. (2011). *Connected in Cairo: Growing up cosmopolitan in the modern Middle East*. Bloomington, IN: Indiana University Press.

Průša, O., Bach, M., & Poláček, P. (2016). Nová česká vlna [New Czech wave]. *Level*, 262, 3.

Said, E. (1994). *Culture and imperialism*. New York, NY: Knopf.

Schiller, H. I. (1969). *Mass communication and American empire*. New York, NY: A. M. Kelley.

Shaw, A. (2010). What is video game culture? Cultural studies and game studies. *Games and Culture*, *5*(4), 403–424.

Šisler, V. (2013a). Digital heroes: Identity construction in Iranian video games. In A. Sreberny & M. Torfeh (Eds.), *Cultural revolution in Iran: Contemporary popular culture in the Islamic Republic* (pp. 171–191). New York, NY: I. B. Tauris.

Šisler, V. (2013b). Videogame development in the Middle East: Iran, the Arab world and beyond. In N. B. Huntemann & B. Aslinger (Eds.), *Gaming globally: Production, play and place* (pp. 251–272). New York, NY: Palgrave Macmillan.

Šlerka, J. (2013). Jak se fanoušci politických stran liší—politické strany na Facebooku (2) [How fans of political parties differ from each other—political parties on Facebook (2)]. *DataBoutique.* Retrieved from http://databoutique.cz/post/62064377499

Šlerka, J., & Šisler, V. (forthcoming). Normalized social distance: Quantitative analysis of religion-centered gaming pages on social networks. In V. Šisler, K. Radde-Antweiler, & X. Zeiler (Eds.), *Methods for studying video games and religion*. New York, NY: Routledge.

Sreberny A., & Khiabany, G. (2010). *Blogistan: The Internet and politics in Iran*. New York, NY: I. B. Tauris.

Švelch, J. (2010). Selling games by the kilo: Using oral history to reconstruct informal economies of computer game distribution in the post-communist environment. In C. Swertz & M. Wagner (Eds.), *Game\play\society: Contributions to contemporary computer game studies* (pp. 265–277). Munich, Germany: Kopaed.

Švelch, J. (2013a). Indiana Jones fights the communist police: Local appropriation of the text adventure genre in the 1980s Czechoslovakia. In N. B. Huntemann & B. Aslinger (Eds.), *Gaming globally: Production, play, and place* (pp. 163–182). New York, NY: Palgrave Macmillan.

Švelch, J. (2013b). Say it with a computer game: Hobby computer culture and the non-entertainment uses of homebrew games in the 1980s Czechoslovakia. *Game Studies*, *13*(2). Retrieved from http://gamestudies.org/1302/articles/svelch

Tunstall, J. (1977). *The media are American*. New York, NY: Columbia University Press.

Wallace, E., Buil, I., de Chernatony, L., & Hogan, M. (2014). Who "likes" you . . . and why? A typology of Facebook fans from "fan"-atics and self-expressives to utilitarians and authentics. *Journal of Advertising Research*, *54*(1), 92–109.

Žáková, E. (Ed.). (2015). *Mapování kulturních a kreativních průmyslů v ČR: Stav, potřeby a trendy* [Mapping cultural and creative industries in CR: Situation, needs, and trends] (Vol. 2). Prague, Czech Republic: Institut umění–Divadelní ústav v Praze.