Breaking Barriers

The Emergence of a Video Game Culture and Industry in the Arab World

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Video games are a massively popular medium with skyrocketing economic relevance. In 2020, revenues from the global gaming industry exceeded those of film, TV, and the digital music industries combined, reportedly approaching $90 billion (YouGov 2020). Video games also constitute an increasingly important form of cultural production, representing a growing diversity of genres, cultures, and worldviews. Over 2.2 billion players worldwide spend six hours in-game per week on average. They are spread across all continents and demographics (WePC 2019).

The Middle East is one of the fastest-growing gaming markets in the world. This growth is driven by the region's young, fast-growing population of active gamers, a high penetration of smartphones and internet, and a supply of localized content from regional and global game publishers (The National 2020). In the Arab world, Saudi Arabia, the United Arab Emirates (UAE), and Egypt are among the top game markets; with Saudi Arabia ranked as the 19th largest gaming market globally in terms of revenue, i.e. around US$837 million (Tashkandi 2021). At the same time, Cairo was notably the biggest location for the *Global Game Jam* in 2020, in which 1,692 game developers from Egypt participated (GGJ 2020).

Until recently, video game histories focused mainly on the traditional centers of the video game industry; namely, the United States, Western Europe, South Korea, and Japan. There exists a limited, albeit growing, body of literature analyzing video game cultures and industries from a broader global perspective; discussing local, regional, and transnational game development, distribution, and policy (Aslinger and Huntemann 2013); cataloguing the global video game industry and its national specificities (Wolf 2015); and analyzing the video games and game cultures of countries within the global South (Penix-Tadsen 2019).

Despite the fundamental contributions of many scholars, research on the video game culture and industry in the Arab world remains fragmented and omits recent technological, political, and societal development in the region. This chapter aims to fill that gap. We understand technology as "an arena contested by a wide variety of individuals, institutions and actors and through complex local

processes of reception, rejection, adaptation and hybridization" (Cueto 2014, vii). The Arab video game scene is multifaceted and diverse, and it encompasses various actors with different visions and interests. Nevertheless, despite its diversity, the scene as a whole can be characterized by a high degree of cultural hybridization, strong emphasis on authenticity of visual representation, and sensitivity to religious and cultural issues (Šisler 2013, 2018; Clément 2019). In this chapter, we examine the roles of economics, politics, religion, and global cultural flows in the appropriation of the video game medium by local players, developers, and institutions, linking them to a broader context of global cultural production and transnational consumer culture.

This chapter stems from fieldwork conducted by the authors in Egypt, Syria, Jordan, Lebanon, the UAE, and Qatar between 2005 and 2020, interviews with more than 40 Arab video game developers, video game analysis, and meta-analysis of existing research. The chapter revisits some of the already published material (Šisler 2008, 2013, 2018; Abbas 2019) and systematizes it within a new theoretical framework. Namely, the chapter adopts the theoretical concepts of gamevironments, game production studies, and critical transculturalism to assess how we can study global video game consumption and production, particularly in the case of the Arab world.

We are aware that the distinction between "centers" of global technological culture and their "peripheries" is problematic (Penix-Tadsen 2019). The global cultural economy constitutes a complex, overlapping, disjunctive order, which cannot be fully understood in terms of center-periphery models (Appadurai 1990). Many geographical locales once considered part of the high-tech periphery are now home to "longstanding and widespread technocultures with their own unique characteristics, and with their own geometries of power" (Penix-Tadsen 2019, 6). It is precisely these geometries of power through which we study video games as "hybrid media texts" that result from industry practices of coproduction, format adaptation, and localization (Kraidy 2005, viii).

Arab Gamevironments

Studies of the Arab world in video games predominantly fall into two camps: those that study the representation of the Arab world by European and US developers; and those that study the production of games in the Arab world (and their self-presentation). Studies of representation predominantly date from around the time of the US-led "War on Terror" and examine how villains in popular video games are often rendered as generically Middle Eastern terrorists and other reductive, Orientalist presentations of Arab cultural identities (Marashi 2001; Reichmuth and Werning 2006; Keogh 2012). Arabs and their culture "have a

history of being misrepresented by non-Arabs in mainstream media, and videogames are no exception" (Alfaraj 2019, 169). Similarly, "Arab players overwhelmingly report that Arabs are either underrepresented or misrepresented in videogames" (Alfaraj 2019, 170).

A second strand of research has moved toward the study of video games produced in the Arab world and the self-representation of Arabs and Muslims therein (Galloway 2004; Machin and Suleiman 2006; Tawil-Souri 2007). We, ourselves, have also studied how mainstream European and American games construct the representation of Arabs or Muslims (Šisler 2008, 2014; de Wildt forthcoming); identity-construction in Arab games (Šisler 2014); and Arab game development (Šisler 2013, 2018). Video game culture extends beyond the games themselves into forums and websites where players actively discuss games' meanings (de Wildt 2020). Others have studied social media engagement by players in the Middle East (Al-Rawi and Consalvo 2019), showing that much of the communal identity constructed there is through the Arabic language and shared consumption of (Arab) video games.

We consider video games in the Arab world as necessarily contextualized by and inseparable from a global gaming culture (Šisler, Švelch, and Šlerka 2017). With Kraidy (2005, 148), we argue here that cultural hybridity "is the cultural logic of globalization" that "poses a challenge to empirical research on media" (Kraidy 2005, viii). Instead of a dualistic framework such as that of "cultural imperialism" or "cultural globalization" (e.g. Appadurai 1990; Dyer-Witheford and de Peuter 2009; Hammar et al. 2020), this chapter adopts Kraidy's framework of "critical transculturalism" (2005) and analyzes cultural hybridity in concrete politico-economic contexts: in this case, the Arab video game industry and culture as contextualized by the global gaming industry.

By focusing critically on power in intercultural relations, a critical transcultural approach "integrat[es] both agency and structure in international communication analysis" (Kraidy 2005, 149). We do this in contrast to cultural imperialism perspectives that focus on the production and distribution of media – often from a hegemonic center to a presumed periphery – and in contrast to cultural pluralist perspectives that emphasize message and reception – e.g. how different cultures may understand and consume the same message differently. Critical transculturalism considers instead "the active links between production, text and reception in the moment of cultural reproduction" (Kraidy 2005, 149) and looks at the interconnection of production, games, play, and player communities. It is within this framework that we examine the structural forces – political, economic, regulatory, and legal – that influence video games' production and consumption in the Arab world.

Similarly, we utilize the methodological framework of game production studies that aims to uncover the economic, cultural, and political structures that

influence the video game industry. While the field of game studies has developed quickly over the past two decades, "the study of the videogame industry and different modes of videogame production have been mostly dismissed by game studies scholars and requires more attention" (Sotamaa and Švelch 2021, 7).

However, rather than splitting Arab video game cultures between developers on the one hand, and their consumers on the other, we prefer the concept of gamevironments. "Gamevironments" are an attempt to integrate analysis of video games within their broader cultural and social contexts (Radde-Antweiler, Waltemathe, and Zeiler 2014). Similar to approaches of encoding–decoding, this includes consideration of the game itself, its production and consumption, and the cultures around that consumption (de Wildt 2019). This encompasses the hybrid figure of the "prosumer," an equally producing–consuming player who adds to or makes games (Ritzer and Jurgenson 2010). As Pierre-Alain Clément notes,

> 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, Iran, in the Arab world in general, in the West and online. 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. (Clément 2019, 118)

History of Video Gaming in the Arab World

Games spread through the Arab world in the late 1970s and 1980s, just as in the United States, Europe, and Japan. Game consoles were popular, with the Atari VCS 2600 dominating the markets (Kasmiya 2015, 29). Early Arab video game players consumed primarily American, European, and to a lesser degree, Japanese games. This section briefly sets out this specific context of the Arab gamevironment in terms of its consumption (through import, piracy, and cybercafés), its production (and localization), and the influence of specific cultural norms.

Foreign Consumption

The entry of foreign imports preceded local video game production, "establishing conventions and audience expectations" that shaped the region's domestic video game industry and its output (Wolf 2015, 6). In Saudi Arabia, middle- and upper-middle-income families had access to early game consoles through visits to the United States or electronics shops in that country's main cities.

Elsewhere in the Arab world, the high cost of original games encouraged piracy. Illegally copied games played a pivotal role in the spread of video gaming in the Arab world. Piracy levels in the region were among the highest worldwide (Šisler 2013; Ibahrine 2015) due to the ease of reproducing digital media such as CD-ROMs and DVDs, the governmental approach regarding copyrights and their infringements, and cultural attitudes toward intellectual property (Wolf 2015, 7). Piracy generally occurs especially when the population in question is already subject to low wages and economic hardship (Wolf 2015, 7). As a result, copies of US or European games could be bought for US$2 to US$3 in most Arab cities and appeared on the local market soon after their release in the United States or Europe (Šisler 2013).

The consequences of such widespread piracy were twofold. On the one hand, local producers and importers competed on the domestic market with cheap, copied Western games. Lower-priced pirated merchandise "makes it harder for legitimate industry to compete and thus drives away legitimate outlets and companies" (Wolf 2015, 7). On the other hand, piracy had a democratizing effect. The informal market benefited players by offering access to hardware and software that were otherwise unavailable locally on the formal market, lowering consumer prices by circumventing import taxes, and expanding access to players of different socioeconomic classes (Penix-Tadsen 2019, 15). Informal market software use in the global South is a tactical response to global inequalities, one that is only logical given the structural unevenness of an industry with ever-growing demands for hardware and internet performance (Apperley 2010, 15). The region's high level of software piracy also shaped video game industry practices, forcing companies to turn to producing online games that require monthly subscriptions and access to a company's servers. This, in turn, made them less vulnerable to loss of profit than stand-alone games (Wolf 2015, 7).

Access to video games in the Arab world was further facilitated through cybercafés that spread rapidly in the region, even in the most remote places (Šisler 2013). These venues catered mainly to Arab youth, enabling them to play popular multiplayer games, either via the internet or local area networks, for a small fee. Cybercafés in particular played an important role in countries like Egypt, Algeria, or Jordan, that had less, or slower developing, internet infrastructure.

Local Production

In 1981, the demand for video game consoles with an Arabic-friendly interface led *Al-Alamyyeh*, a Kuwaiti company, to start producing an Arabic home computer called Sakhr. It was based on the well-known Japanese MSX and became popular with middle-class families across the Arab world (Kasmiya 2015, 30). Al-Alamyyeh localized some games to Arabic and developed their own simple Arabic games, such as a trivia game *Road to Makkah* (Abbas 2019). The pioneering work of Al-Alamyyeh resembled many other companies in the global South that have pursued technological development primarily as a way of overcoming obstacles and resolving problems for the end user (Penix-Tadsen 2019).

The Iraqi invasion of Kuwait put an end to such emerging game development in the 1990s. A decade later in 2000, however, *The Stone Throwers* by Syrian medical student Muhammad Hamza marked an important trend of the early Arab video game production. It was a technologically simple game dealing with the Al-Aqsa Intifada, which put players into the role of a Palestinian defending the Al-Aqsa Mosque from Israeli soldiers (Šisler 2018). Soon, other games were developed that more closely reflected Arabic culture, history, and religion than did games from elsewhere (Šisler 2008). They can be considered "counter-discourses" (Lefebvre 1991), posing an alternative to hegemonic misrepresentations in US and European video games of Arabs as terrorists and religious fundamentalists (Šisler 2018). These games can be roughly divided into three categories: resistance, education, and cultural dialogue. The resistance games were typically first-person shooters based on real conflicts with Israel in Palestine and Lebanon and included games by the Lebanese Hezbollah movement (*Special Force*, *Special Force 2*); Syrian companies Dar al-Fikr and Afkar Media (*Under Ash*, *Under Siege*); or the Jordanian studio Turath (*Jenin: The Road of Heroes*). These games provided Arab youth with heroes of their own and retold the story of the conflicts from the Arab perspective (Šisler 2018). Early educational games aimed at teaching the basic tenets of Islam, narrated the history of Islamic civilization, or promoted "family values," and included titles such as *Young Muslim*, *Prophets' Tales*, *Adventures of Ahmad*, or *Children of Jerusalem*. Only a few early games developed in the Arab world were intended as a tool for cultural dialogue with the West; for example, *Quraish*, created by the Syrian company Afkar Media in 2005. This strategy game dealt with the pre-Islamic Bedouin wars, the origin of Islam, and its subsequent spread. It could be played from different perspectives (those of pagan Bedouins, Muslim Arabs, or Zoroastrian Persians) and was available in Arabic and English (Šisler 2018).

One of the authors of *Quraish*, Radwan Kasmiya, later established Falafel Games with Vincent Ghossoub. The company opened offices in the Middle East and China and their first game, *Knights of Glory* (2011), reached more than a

million players. In Egypt, many independent developers have tried to publish culture-themed games or political-themed games. For example, Nezal Entertainment managed to obtain investments of more than US$1 million with *Elmadinah* (2013), an Arabic-style FarmVille-like game. Their previous game, *Crowds Vote* (2012), was based on the Egyptian revolution of 2012 (Kasmiya 2015).

Cultural Authenticity

Early Arab video game designers emphasized "authenticity." Nevertheless, despite the emphasis on regional tradition, history, and religion, many early Arab games still based their games' underlying structures of rule systems, quest structures, and ergonomic principles on existing foreign conventions that had already proven successful (Šisler 2013). As a result, what emerged from early game production in the Arab world was a story of "hybridization" and cross-cultural exchange rather than "authenticity" (Šisler 2018).

Beyond domestic production, localization became a viable option for video game monetization. *Travian*, a German browser-based strategy game, was the first massive multiplayer game available in Arabic that enabled payments with telco payment aggregators and prepaid cards. During its peak in 2009, the Arabic version of *Travian* accounted for one-fifth of *Travian*'s global player audience, generating US$1.5 to $3 million monthly (Abbas 2019). *Travian's* success opened the Arab world to other European browser games and attracted investments into regional game companies. The popularity of browser games stemmed from no download requirements and support for low-end PCs. Localized, free-to-play games spread further with the proliferation of smartphones and social networking sites. As a result, several US and European companies set up offices in the Arab world and started retooling their games for the Arabic market (Campbell 2013).

Such localization requires more than linguistic translation. It also demands adaptation to cultural, religious, and political contexts. In the case of localizing US and European video games for the Arab market, this entails avoiding overt depictions of sexuality, explicit violence, criticism of religion, and alcohol consumption. For instance, the very successful localization of *Travian*, as mentioned above, replaced its "brewery" building with a tea house, including its graphics. Although there were no regulatory frameworks for video games in the early days of video gaming in most Arab states, several games have been banned in Saudi Arabia and the UAE for displaying sexuality and for misrepresentation of religion or Arab culture (Šisler 2018). This eventually led to integrating regulatory frameworks for video games into national media policies.

Current Trends in Video Gaming in the Arab World

The video game industry has experienced profound socio-technical and socioeconomic changes during the last decade (Ter Minassian and Zabban 2021). These changes include the democratization of game design know-how and tools, such as *Unity* and *GameMaker*, and accessibility to global markets through distribution platforms like *Steam* and *Itch* (Ter Minassian and Zabban 2021). Both of these factors lower development and publishing costs, benefiting developers in economically fragile regions. Despite the previously mentioned changes, commercially successful studios are still rare in the Arab world. Local companies continue to struggle with a number of political and economic issues, including political instability, economic uncertainty, lack of foreign investment, fragmented gaming communities, missing know-how, and limited education for video game development.

Governmental Support and Regulation

In several Arab countries, local governments started to realize the cultural, technological, and economical potential of creative industries and decided to support the nascent industry with an array of incentives. In the Gulf, investment in digital media initiatives such as Abu Dhabi Media City and Ad Gaming in the UAE, or the Game Changers Program in Saudi Arabia, is also part of the region's strategy to diversify a rent-based economy (Richter and Kozman 2021). Elsewhere, various supportive programs include the King Abdullah Development Fund that runs Jordan Gaming Lab and Pocket Gamer Connects Jordan, and the Information Technology Institute in Egypt. Beyond funding, these programs offer networking and entrepreneurship support.

Initially, video games were not subject to any regulatory frameworks in the Arab world. In 2016, the General Commission for Audiovisual Media in Saudi Arabia introduced the region's first official age rating system for local and imported video games. Prohibited content includes nudity, explicit sexuality, homosexuality, criticism of religion, and politically sensitive issues. In 2018, the UAE followed suit, introducing a similar rating system via the country's National Media Council (NMC). According to the NMC press release, the system "aims at preserving the values of the UAE society and its cultural heritage, and at protecting children from the negative influences from various media platforms, including videogames" (National Media Council 2018). These emerging regulatory frameworks impact not only local production but also localization of foreign titles.

Globalization and Transnational Networks

Outwardly, Arab developers are becoming more vocal about existing schematizations and misrepresentations of Arab and Muslim cultures in global video game production. For example, the annual Game Developers' Conference (GDC) has hosted multiple talks on this topic by industry insiders such as Mahmoud Khasawneh, Imad Khan, Osama Dorias, and Rami Ismail. In 2018, Osama Dorias delivered a seminal talk entitled "A How-To Guide for Muslim Representation in Video Games" at GDC in San Francisco. Dutch–Egyptian game designer Rami Ismail launched the website *isthisarabic.com* to combat the recurring failure of game companies to represent Arabic script accurately. These examples indicate a broader change in Arab gaming: globalization and the emergence of transnational networks.

Networking is an integral aspect of video gaming culture and development. For players, social networks afford them opportunities for community-building and information sharing (of tips and tricks). Shared identity in these networks is publicly constructed "based on the commonalities that gamers feel due to their use of Arabic along with English, their geographical proximity and their sense of shared history and possibly religion" (Al-Rawi and Consalvo 2019, 238).

For developers, networking is crucial to video game production, distribution, and marketing. Game development is typically project-based and includes networks of experts that restructuralize themselves according to concrete project needs. Until recently, game development networks in the Arab world were local and existed in loosely interconnected groups organized nationally. Recently, such networks have become increasingly formalized and international, organizing social networking events and platforms for the region as a whole (Šisler 2018). A prominent example is Game Zanga, the largest annual game development event in the Arab world, during which developers from all over the Arabic world work together to make games about community-selected topics. The topics selected for the individual yearly events reflect the political situation in the region. In 2012, when the Egyptian revolution peaked, the community chose "freedom" as a topic for a game jam; in 2013, it was "lost,"; and then "chaos" in 2014 when the Islamic State appeared on the scene (Abbas 2019).

Representation and Politics

A political consequence of a global industry being led mostly from North America is that contemporary global conflicts are almost by default represented from the US perspective. One such example is the game *Six Days in Fallujah*, which was nearing publication at the time of writing this paper. It was announced that the game would follow a squad of US Marines fighting in 2004's Second

Battle of Fallujah during the Iraq War. From the moment of its announcement, tensions were high concerning how the conflict would be represented. A short video trailer from 2021 immediately invited criticism. Purportedly being of "documentary realism," the trailer included interviews with US Marines explaining their traumatic experiences, while forgetting about the traumas of thousands of Iraqi civilians. Such a perspective is very much the default in large-scale produced video games.

When an Arab perspective does prevail, it is too eagerly discarded as controversial or non-neutral. An example is *Liyla and the Shadows of War* created by Palestinian designer Rasheed Abu Eideh in 2016. It explores the civilian cost of war from a Palestinian perspective and was initially rejected by Apple for sale on its online store. The game was later admitted, but only after massive protests from the global game development community (Batchelor 2017).

Casual Games

For most Arab video game developers, however, the issue of in-game representational politics is not a crucial one. They struggle with everyday business concerns and try to find a financially sustainable mode of operation. Mobile, casual gaming structures seem to have been chosen by many local developers for capacity building and as a pathway to more complex, refined games. The rise of casual games and mobile gaming, coupled with accessible game development tools, has made it possible for small companies not only to develop games, but also to reach a global audience (Wolf 2015). When we examine the top 50 mobile games in Saudi Arabia, Qatar, Oman, Egypt, and Bahrain, we find that an increasing number of the most popular games are made in the Arab world and are designed for Arabic speakers (Al-Rawi and Consalvo 2019). Similarly, most of the economic growth in the past five years can be attributed to mobile sales (Abbas 2019).

Modding and Community Translations

Finally, what cannot be made in the Arab world can at least be modified *by* the Arab world. There is an existing tradition within game communities as a whole to modify or "mod" existing games. This ranges from adding game-play elements to translating in-game text to Arabic. These can become long-term tasks for whole communities of players. One such effort is the fan translation of *The Legend of Zelda: Ocarina of Time*, originally released in Japanese and English in 1998. Fifteen years later in 2013, after three years of work, an Arabic translation was released by fan-translators from around the Arab world (Johnson 2013).

Conclusion

The global video game industry has witnessed significant changes over the past decade. Digital distribution platforms, accessible development tools, and new audiences have also spawned "informal game development practices" (Keogh 2019), which turn game production into a process that is "both inherently global and intensely localized" (Sotamaa and Švelch 2021, 9).

In the Arab world, the video game industry has been in existence for 30 years. It has the potential to emerge as an engine of growth for the region (Research and Markets 2021). Nevertheless, this potential has not been fully realized, and Arab video gaming is still struggling with certain barriers. These barriers include political instability, economic uncertainty, lack of foreign investment, missing know-how, and fragmented gaming communities.

The Arab video game industry seems to follow these characteristics common to the gamevironments of the global South:

1. Reputation as part of the technological "periphery" or "margin," in spite of a considerable history of game consumption, production, circulation, and related practices.
2. Shared set of historical obstacles and affordances to the development of local game culture and game industries.
3. History of in-game representations of local culture, created by developers in the global North.
4. Dual government role with regard to video games: split between censorship and regulation and a growing push to promote national game industries. (Penix-Tadsen 2019, 12–13)

Dutch–Egyptian game developer Rami Ismail proposed six stages of regional game development communities. Most Arab game development communities are in the first few stages. In the first stage, territories may have very few amateurs, then communities emerge to share knowledge; then knowledge is exchanged internationally, all while the goal is still "to make it big in the West" (Ismail 2015). Ismail's fourth stage is entered when one company reaches economic success, which in the fifth and sixth stages leads to the emergence of a region's own game design tradition that is distinct from copying the "standard" of big (US) game companies. As the preceding overview shows, the Arab video game industry has been developing for a while, but it still needs a "big success story" (Abbas 2019) – what Ismail calls a "hero."

As Penix-Tadsen, Ismail, and this book chapter show, there is room for growth. The Arab world continues to be schematized and misrepresented in global mainstream video game production. This has led to the emergence of "counter-discourse" games in the early phase of Arab video game development. Those

games strived to provide Arab gamers with more accurate and "authentic" heroes and stories. Today, this ongoing misrepresentation is met with vocal criticism originating from video game professionals of Arab origin who are part of global video gaming networks. At the same time, video game production in the Arab world has shifted from strong emphasis on "authenticity" and representation of Arab history and culture to casual, mobile games that are marketed and distributed globally.

For both the early and recent phases of Arab gaming culture, hybridization and cross-cultural exchange is crucial. Technology as both a specific outcome of, and influence on, social practices has to be considered a driver of hybridity; a hybrid system "draws attention to change and flux, the passing of an older set of cultural and institutional norms, and the gradual emergence of new norms" (Chadwick 2017, 12). While the counter-discourse games created new "authentic" content on the level of audiovisuals and narratives, they replicated the underlying structures of global, primarily European and US, video game production. More recent mobile and casual games directly appropriate the successful patterns of the latter.

Across the historical contexts and current trends we have described, it is clear that Arab gaming cultures are not just growing, hybridizing, and entering into cross-cultural exchange. Importantly, they also include an emerging consumer base, with its own unique player culture. We see this not just through increasing interest in game consumption and development, but also in the emergent transnational communities of players who modify and translate the games they love. Gaming cultures *and* industries thrive on such engaged communal practices.

In this sense, we should expand on what Ismail calls the "heroes" of emerging territories. In the Arab context, we have indeed seen some promising game developers who might soon prove to be the driving force behind an emerging game industry – whether professional or informal. But at the same time, the cultures around it – the Arab "gamevironments" – then need all kinds of equally important heroes. Those are the people who distribute, localize, modify, regulate, organize, make, and indeed *play* Arab games – not just as part of the Arab world, but also a transnational, global gaming culture.

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