



Playing with religion:

# THE GAMIFICATION OF JIHAD

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TRANSJIHAD aims at advancing our understanding of one of the greatest contemporary challenges on the international agenda for peace and security, namely the ability of transnational jihadist movements to tap into local conflicts, hence escalating violence.

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## ABSTRACT

This report reviews existing knowledge on the convergence between jihad and gaming, and identifies areas that need further attention from academics and practitioners concerned with the spread of transnational jihadism. As video gaming becomes ubiquitous, its growing influence also has an impact on jihadi mobilisation or other types of violent extremism. Investigating ways in which jihadists contextualise and take advantage of various gaming spaces, this report also presents examples of such conduct.

The review briefly explores comparable and related fields of research, such as media and cultural studies as well as research on right-wing extremism. Presenting relevant theoretical frameworks that can be applied to the case of jihadism, the analysis points at the same time to gaps in our understanding of this incipient phenomenon for further examination and inquiry, including suggestions on practical directions for moving forward.

To conclude, security measures to prevent gaming being used as platforms for mobilisation are addressed as a broad call-to-action and inspiration to multidisciplinary collaboration.

## ABBREVIATIONS AND GLOSSARY

- AAA** Triple-A games. Video games developed and published by mid or large-sized publishers, generally with more significant production and marketing budgets (such as Sony, Tencent, EA, Ubisoft, Activision Blizzard, Epic Games, Bandai Namco etc.).
- Arcade** An arcade game is a game machine typically found in public places like malls, restaurants and amusement arcades, and is usually coin operated. Arcade games are usually video games, pinball machines or electromechanical games. The late 1970s through the 1980s was the golden age of arcade games. They enjoyed some relative popularity even during the early 1990s. The popularity of this platform slowly declined, however, as console and PC games came into prominence.
- BASIC** Beginner's All-Purpose Symbolic Instruction Code (BASIC) is a high-level and simple programming language that was introduced 1 May 1964. Although it is no longer a major programming language, BASIC is primarily used as a tool for teaching fundamental programming principles.
- Blockchain** A blockchain is a tamper-resistant distributed ledger that's used to validate and store digital transactional records. No single authority is responsible for maintaining a blockchain. Instead, computers in a peer-to-peer (P2P) network each store a copy of the ledger and transactions are verified through a decentralised consensus mechanism. Transactions are stored in permanent, time-stamped units called blocks and each block is connected (chained) to the previous block with a cryptographic hash that is created by using the previous block's contents. The hash links make it impossible to alter data in one block without making changes to each subsequent block in the chain at the exact same time. Essentially, this means that any attempt to alter or delete information will break the cryptographic chain and immediately alert all nodes in the network that there is a problem. Blockchains can be public or private. In a public blockchain, anyone can view the ledger and participate in the consensus mechanism. In a private blockchain, the consensus mechanism is restricted to certain nodes on the network and views of the private ledger may also be restricted. Originally created for digital currency, blockchain is now being used by many types of businesses as a decentralised database technology

to support smart contracts as well as records management for healthcare and identity and access management (IAM).

**Bot** A 'bot' – short for robot – is a software program that performs automated, repetitive, predefined tasks. Bots typically imitate or replace human user behaviour. Because they are automated, they operate much faster than human users. They carry out useful functions, such as customer service or indexing search engines, but they can also come in the form of malware – used to gain total control over a computer.

**Cloud data** The cloud is a general metaphor that is used to refer to the internet. Initially, the internet was seen as a distributed network and then, with the invention of the World Wide Web, as a tangle of interlinked media. As the internet continued to grow in both size and the range of activities it encompassed, it came to be known as 'the cloud'.

**E2E** Exchange-to-exchange (E2E), in the context of IT, is the interaction between websites and the businesses that operate them. Certain kinds of transactions called 'exchanges' between websites constitute what IT professionals could call an 'exchange to exchange' operation. Although E2E can mean 'exchange to exchange', it has also been used to represent the term 'end-to-end'. The end-to-end principle in IT involves the placement of certain software functions in a network's end hosts, rather than in other network segments.

**Easter eggs** Easter egg is a small secret surprise bonus within a game – sometimes it's as simple as a little joke, whereas in other cases it might be a full extra video sequence regarding what has been accomplished. Easter eggs are usually unlocked by using certain techniques to complete in-game tasks, entering specific button combinations or acquiring access to secret game or game file areas.

**EGRN** Extremism and Gaming Research Network.

**FPS** First-person shooter.

**Geocaching** Geocaching is a real-world outdoor game that uses Global Positioning System (GPS) technology and mixes elements, including letterboxing, benchmarking and treasure hunting. Players, known as geocachers, search for hidden containers known as geocaches, or caches, which are placed in various locations by organisers or other players.

**IRL** In real life (IRL) is a tech slang term used to talk about the real world, in contrast to the world of the internet, or some other virtual or cyber world. In real life (IRL) is also known as the meatspace.

**LAN** A local area network (LAN) is composed of interconnected workstations and personal computers which are each capable of accessing and sharing data and devices, such as printers, scanners and data storage devices, anywhere on the LAN. LANs are characterised by higher communication and data transfer rates and the lack of any need for leased telecommunication lines.

**Mod** In gaming, modification (mod) refers to the process of editing or changing the structure, syntax or code of a game. Modification is performed to change the operations of a game in par with the requirements, environment, or end result or experience. Modification is performed to allow a gamer to play a game different from its original released version. It is generally performed by end users or developers, and the modded version is considered as an unofficial version of the game. Typically, when a modification is applied to a game, the user or gamer can have better weapons, more game money, different background textures, stronger character health and any other characteristics specific to a game. Modification can be partial or total, or it may be used only to fix some bugs (dysfunctional programming).

**MoDVIG** Moral disengagement in violent video games model.

**MWB** Mominoun Without Borders.

**NFT** A non-fungible token (NFT) is a programmable unit of unique data that cannot be changed once it has been recorded in a distributed ledger. Because NFTs are recorded as part of a blockchain, they can be easily tracked to verify the authenticity and history of a specific digital asset. Just like baseball cards and comic books, there's a collector's market for NFTs. In the early part of 2021, NFT marketplaces (also known as exchanges) began to attract attention from investors after Christie's auction house sold a non-fungible token for \$69 million. NFTs are created through a pay-per-use process called minting. Many of the online services that people use to mint NFTs also act as marketplaces where non-fungible tokens can be viewed, bought and sold.

**P/CVE** Preventing/countering violent extremism.

**PBL** Points, badges and leader boards.

**REMV** Racially or ethnically motivated violent extremism

**RPG** RPG (role-playing game) video games originate from tabletop or pen-and-paper RPGs, such as Rolemaster or Dungeons and Dragons (D&D) – a type of game in which the players impersonate their characters by

actively describing their actions and thoughts. In video game RPGs, the part of the 'game master' (who acts as both the narrator and the referee) is automated, and the computer's artificial intelligence (AI) decides the actions of the various non-player characters (NPCs) and enemies. The development of a central storyline used to be a fundamental part of old-school RPGs, but is not a requirement anymore in more modern games such as massively multiplayer online RPGs (MMORPGs). Most RPGs are set in a fictional world with traditional fantasy or sci-fi elements that are incorporated into the game mechanics. For example: choosing a race such as dwarf or elf can affect the character's in-game choices or modify his characteristics or spell-casting abilities. In classic tabletop RPGs, a set of clear rules defined how characters could interact with the environment. Usually, characters had to roll a die to determine whether their attempt at a certain action (such as striking an enemy or scaling a wall) was successful.

**RWE**

Right-wing extremism.

**Sandbox/  
Open-world  
games**

A sandbox is a style of game in which minimal character limitations are placed on the gamer, allowing the gamer to roam and change a virtual world at will. In contrast to a progression-style game, a sandbox game emphasises roaming and allows a gamer to select tasks. Instead of featuring segmented areas or numbered levels, a sandbox game usually occurs in a 'world' to which the gamer has full access from start to finish. A sandbox game is also known as an open-world or free-roaming game. Sandbox games can include structured elements – such as mini-games, tasks, submissions and storylines – that may be ignored by gamers. In fact, the sandbox game's nonlinear nature creates storyline challenges for game designers. For this reason, tasks and side missions usually follow a progression, where tasks are unlocked upon successful task completion.

**SEO**

Search engine optimisation (SEO) refers to online methods used to increase traffic to a website by increasing its search engine page rank.

**VEO**

Violent extremist organisations.

**VoIP**


Voice over internet protocol (VoIP) is a technology used for delivering different kinds of data from a source to a destination using IP (internet protocol). The data may be in many forms, including files, voice communication, pictures, fax or multimedia messages. VoIP is most often used for telephone calls, which are almost free of charge.



**INTRODUCTION**

Since the 9/11 Commission Report uncovered how the hijackers behind the attack used flight simulators and video games to 'increase familiarity with aircraft models and functions, and to highlight gaps in cabin security'<sup>1</sup> as part of their attack preparation, there have been plenty of reasons to closely examine the intersections between gaming and violent extremist organisations (VEOs). In addition, it is suspected<sup>2</sup> that PlayStation (PS) consoles were used before the November 2015 Paris attacks (Bataclan Theatre Massacre). The attackers might have used the online PSN (PlayStation Network) to organise their coordinated actions while avoiding detection.

Jan Jambon,<sup>3</sup> who was Belgium's Federal Home Affairs Minister at the time, has reportedly commented how the PS4 is used by Islamic State (IS) agents to communicate. Jambon reasoned that the console is selected because it is notoriously hard to monitor. PS4 is even harder to keep track of than WhatsApp, according to Jambon.



**The attackers might have used the online PSN (PlayStation Network) to organise their coordinated actions while avoiding detection.**

Additionally, in 2014 a 14-year-old Austrian boy<sup>4</sup> is reported to have been arrested after downloading bomb-making plans and storing them on his PS. The kid was in contact with IS sympathisers online.

On the 'Terrorgram'<sup>5</sup> (network of group-agnostic terror-related Telegram groups and channels<sup>6</sup>) in January 2019, IS provided 'followers detailed guidance on using gaming sites to recruit new members'.<sup>7</sup> The video games mentioned were formatted to run on PS portable devices to further facilitate mobility and relocation. Moreover, IS uses<sup>8</sup> so-called 'bots'<sup>9</sup> to ease and automate much of their Telegram outreach and propaganda activity online.

However, as an introductory remark, it is worth mentioning that this intersection between video games and VEOs is not a uniquely jihadist phenomenon. Right-wing extremism (RWE) and related racially or ethnically motivated violent extremism (REMVE), although not the main focus of this report, also figures prominently in this field, as we will demonstrate shortly when we return to look at relevant comparative research in the following chapters.


Suffice to say for now, as part of Anders Behring Breivik's online attack preparation,<sup>10</sup> video gaming assisted this violent extremist attacker in countering resistance from law enforcement as well as running attack scenarios virtually. Mainly through mainstream popular games such as: 'World of Warcraft' (Blizzard Entertainment, 2004), 'Age of Conan' (Funcom, 2008), 'Call of Duty: Modern Warfare 2' (IW, 2009), 'Imperial Warfare' (NA<sup>11</sup>), 'BioShock' (2K Games, 2007), 'Mass Effect' (BioWare, 2007), 'Evony' (Evony, 2009), 'Astro Empire' (Cybertropia Studios, 2006), 'Dark Orbit' (Bigpoint, 2006), 'LOTR online' (Turbine, 2007) and 'Starcraft' (Blizzard Entertainment, 1998).

As a sidebar regarding gaming and the intersection with jihadism, the 2015 Copenhagen shootings perpetrated by Omar al-Hussein<sup>12</sup> at Krudttønden and the Great Synagogue in Krystalgade were connected to a cybercafé. Part of the following police investigation led to the arrest of four people at the cybercafé Power Play in Nørrebrogade, Copenhagen. There are several other cases of illegal criminal activity connected to similar gaming cybercafés. However, this particular case is somewhat indicative of the well-researched cross-over phenomenon between gang members and their surrounding milieu and born-again religious jihadist violent extremism. Many questions are raised by researchers about this issue of intersecting communities.

Mainly, whether or not this is indicative of an inherent violent nature within such environments or whether this is merely popular culture and just happens to be where the youth are at; attracting VEOs and their main recruitment demographics of angry young men. Highlighting video games, as a pre-operation or pre-attack tool, prompts numerous questions that need to be asked and researched. This unquantifiable 'gaming factor' has a discernible transnationalist relevance with regards to jihadist mass mobilisation (new media), conflict escalation and new forms of warfare (new technology and cyberwar).

The following report will introduce this new phenomenon and the intersections between gaming and transnational jihad. Firstly, the most current and very limited niche research will be introduced along with the main influences on this VEO gaming trend. Secondly, an overview of selected jihadist gaming cases will be presented, followed by connected discussions on violence in media, overall digital challenges and the varying effects of gaming genres.

Thirdly, a brief exploration of gaming and religion, as well as definitions and discussions regarding gamification as a concept, will be included. Fourthly, an attempt at positioning this nascent jihadist research field will follow, between cultural and media studies on the one hand, and right-wing VEO studies on the other.



**As a sidebar regarding gaming and the intersection with jihadism, the 2015 Copenhagen shootings perpetrated by Omar al-Hussein at Krudttønden and the Great Synagogue in Krystalgade were connected to a cybercafé.**

Finally, some tentative concluding remarks with a look towards further investigation and exploration are highlighted, bookended with a few appendices for more background information on gaming history, research gaps, typologies and gamer/user type studies.



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## JIHADIST GAMING CASES



Before diving in to examine selected jihadist and VEO gaming-related cases and suggestions on ways to further investigate these incidents, a housekeeping of key and main usage and denotation of terminology is in order. Where are national movements and groups, such as Hamas, Hezbollah or the Taliban, positioned? Are they Jihadists? Militant Islamists? Forms of legitimate resistance against occupying forces and imperialism? All of the above?

Thomas Hegghammer provides a discussion of definitions,<sup>13</sup> which is useful for this report. He defines 'jihadi' as violent Islamist, including groups such as Hezbollah and Hamas. According to Hegghammer, this definition is the most logical yet parsimonious, as it is the least commonly used. As a descriptive term, violent Islamist is closely related to the ideologically non-specific term VEO (violent extremist organisation), which is often used in this report.

As a preference, Hegghammer and others focus on a subset of particularly violent, conservative and uncompromising Sunni groups, which are described as Salafi jihadis. Accordingly, Salafi jihadism constitutes an epistemic community where Hamas, Hezbollah and the Taliban are not part of the conversation. In addition, jihadist groups such as al-Qaida (AQ) and IS, including their supporters and affiliations, frequently criticise Hamas and Hezbollah for being ideopolitically compromised – as expressed in their willingness to share power as political parties running for elections and/or participating in the creation of national governments with non-Islamists.

Sheikh and El-Jaichi provide a concise, straightforward definition of 'jihadism't is an 'ideologisation of jihad',<sup>14</sup> where jihadi movements break away from and are a critique of orthodoxy. According to Kraidy and Vilanova, propagandising of this type of jihadism is all-encompassing. It extends to written communiqués, social media, billboards, licence plates, stationery and coins, all of which are arrived at by following what IS and their supporters call a 'prophetic methodology'. This report is, in part, an attempt at investigating whether the propagandising of this form of extremism extends to video gaming as well.

As such, the main jihadist threat actors to be considered in this report are AQ and IS, including their subgroups, fractions and supporting networks. As Salafism and jihadist ideology is not part of this investigation, 'jihadist', 'jihadi' and 'jihadism' will be descriptively used and not the more specific 'Salafi-jihadism', in order to facilitate reading. However, a brief note on Sunni/Shia militancy is in order. According to Sheikh and El-Jaichi (2022), Abdallah Azzam encouraged Sunni Islamists to take

lessons on military tactics from the Shia group Hezbollah. As a result, Hamas was founded by Sheikh Ahmed Yassin in 1987 inspired by Hezbollah's resistance in Lebanon.

Since this report's focus is gaming, it is, therefore, worth mentioning Hezbollah-affiliated developer Afkar Media and publisher Dar al-Fikr, who mainly developed and distributed video games in the 2000s. The aim<sup>15</sup> was to engage participants in historical conflicts and involve gamers in ideological narratives constructed by the developers. Thus, allowing players to imagine themselves members of VEOs – not spectators only.

Syria-based Afkar Media developed 'Under the Ash' (2002) [تحت الرماد], 'Quraish' (2005) [قریش] and 'Under Siege' (2006)<sup>16</sup> [تحت الحصار] to be published by Lebanon-based Dar al-Fikr. 'Under Siege' is a sequel to 'Under the Ash' and both games are 3D first-person shooters (FPS) depicting the Israeli/Palestinian conflict with a Palestinian protagonist, during the 1st and 2nd Intifadas, respectively. 'Quraish' is a strategy game that tells the story of the first 100 years of Islam's history from four different points of view: Bedouin, Arab, Persian and Roman. Finally, and more recently, Hezbollah used video games during their involvement in the Syrian civil war by encouraging players to re-enact main battles targeting IS and Sunni insurgent groups.<sup>17</sup> 'Holy Defense' [الدفاع المقدس] came out in 2018 for purchase at Dar al-Manar and Dar al-Maaref in Lebanon from an unknown (to our knowledge) developer.

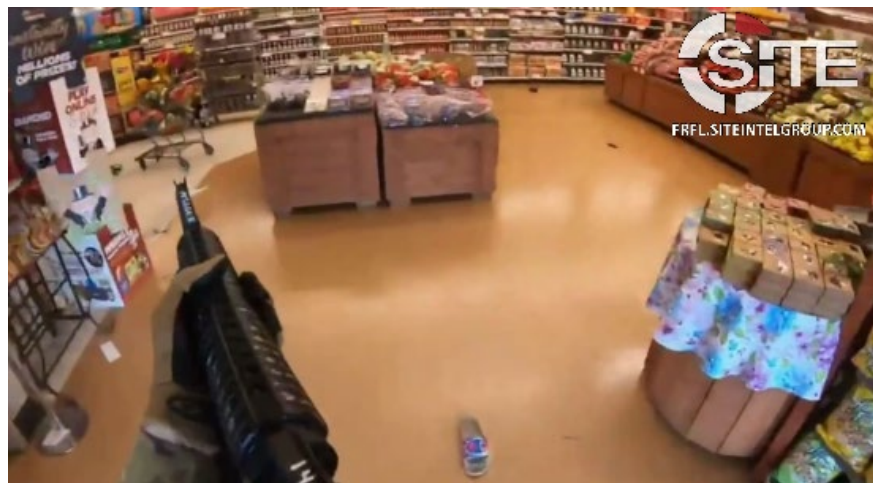
## FROM CHRISTCHURCH TO BUFFALO: LIVESTREAMING TERROR

According to the Extremism and Gaming Research Network (EGRN), some specific initial jihadist gaming research was done more than ten years ago, in the aftermath and years following 9/11. However, besides becoming outdated, the research was focused on games specifically, not gamification influences nor newer gaming platforms or gaming aesthetics, as such. Following this, a definite research game changer and renewed uptick in interest took place as a consequence of the Christchurch 2019 attacks perpetrated by Brenton Tarrant. Livestreaming terror as if playing a video game, as a new main component to spread even more fear and terror than the attacks themselves, was introduced. Gaming aesthetics and gaming adjacent platforms were now viewed as potential 'hotbeds' for radicalisation, as an initial, immediate and perhaps overblown hurried reaction.

VEOs were presented as eager actors capitalising on a massive, youthful audience and 'gaming world's deep integration within pop culture'.<sup>18</sup> Graphic design/presentation and FPS influence in not only the Christchurch attacks, but in the Halle synagogue and El Paso shootings<sup>19</sup> as well, can be viewed as a bottom-up gamification process.<sup>20</sup> Most recently this terror livestreaming phenomenon has been applied in the May 2022 Buffalo supermarket shootings.

What all of these instances point to is a peer-to-peer conversation amongst those who are already radicalised or in the process of, using 'body counts', 'beat his score' and imaginary leader boards as their gamer lingua franca. Although Facebook intervened, removing 1.5 million copies of the 17-minute Christchurch livestream by Brenton Tarrant, footage is still available for downloading on many platforms, and probably saved on many home devices and hard drives, as well. A gamified replication<sup>21</sup> of the attack was also made as a mod<sup>22</sup> of 'The Sims' (Electronic Arts, 2000) for unknown purposes by unknown creators (to the best of our knowledge).

The xenophobic violent attack in Christchurch exemplifies, amongst other things, the 'convergences of technologies' and yet another 'banalisation of evil'.<sup>23</sup> Live-streaming of terror as entertainment and 'pornotroping' introduces an 'abyss of ethical challenges'. A massacre 'made for sharing' elevates terror production as the video of the attack was copied and reposted.



Livestreaming terror using FPS-game influence and point of view during the Buffalo supermarket shootings.

Source: SITE Intelligence Group <https://ent.siteintelgroup.com/Far-Right/-Far-Left-Threat/accelerationist-neo-nazi-propagandists-celebrate-buffalo-shooter-as-saint.html>

According to Yasmin Ibrahim, this incident and the FPS-footage signals the following: reality tv meets violent gaming culture meets attention amplification algorithms. Highlighting, once again, how the architecture of the internet is designed to elicit engagement first, and as such is not equipped to thwart the rapid widespread of harmful material and ideas. The rate of sharing, uploading and reposting far outstrips website moderators' ability to delete those clips. Yasmin Ibrahim outlines this as a 'violence of the sharing economy', with videos named after quotes from the shooter, such as: 'Let's get this party started.' In addition, it is not just the trivial up- and downloads that are disconcerting; this incident shows how reformatting, re-editing and file sharing binds audiences with the product as coproducers and distribution collaborators.

### FIRST-PERSON SHOOTER INFLUENCE

The Christchurch attack video uses an FPS perspective, which is building upon and further developing a well-established jihadist method.<sup>24</sup> IS propaganda videos are at this point well-known to be technically and aesthetically superior<sup>25</sup> to those of other jihadist groups, especially the AQ old guard. Copying aesthetics from and the design of FPS games sanitises and familiarises the violence,<sup>26</sup> and other jihadist groups, such as HTS (Hayaat Tahrir al-Sham), have copied this IS propaganda aesthetic. More precisely, this video game motif is a particular 'Call of Duty' (COD) visual expression.

Furthermore, this game motif, whether in the form of memes, images or ripped footage, functions as a visual 'dog whistle' for a global youth demographic, more so than to any specific nationality, religious or ethnic group. Rhetorically speaking, dog whistles will sound largely neutral to the main, majority audiences, but its full meaning is targeted to a gamer subset of those audiences. Multiple gaming characteristics dominate such propaganda videos and define the game motif used, according to Dauber, Robinson, Baslios and Blair (2019). FPS angles and points of view (POVs) provide an immersive experience, as well as a 'first among equals' revelatory feeling when a viewer is able to identify a video's direct FPS influence. Using drone footage where the 'bad guys' are in red and 'good guys' in green or blue is another such characteristic. Moreover, mini-maps as visual navigational tools (different from the drone/satellite footage) in the corner of the frame is another familiar gaming FPS or open-world visual. Another motif and visual narrative element copied is whenever a new mission or chapter is introduced, grainy washed-out colour palettes (grey/sepia toned) are used instead of the regular hi-res footage.

In games, as well as in IS and similar VEO videos, 'levelling up' when a player is more successful than usual, earns the player more powerful weapons and a kill/score streak. Roughly around the same point in the narrative action of these propaganda videos, as in a video game, would a viewer see the 'rewarded weapons' being introduced and used. Finally, when plenty of people are being killed at once in VEO gamified videos, they are killed at a distance, as in video games.

### MODS AND MEMES: JIHADIST GAMING CASES <sup>27</sup>

As far as we know, the first video game designed by jihadists is 'Quest for Bush' [أبلة القبض على بوش],<sup>28</sup> which was distributed on the internet September 2006, receiving some international concern. This game is originally copied from (a mod) of two American games. The first game was published after the 9/11 attacks, titled 'Quest for al-Qaeda', and the second was published after the following invasion of Iraq, titled 'Quest for Saddam'. 'Quest for Bush' is a crude FPS point and kill game similar to 'Wolfenstein' or 'Doom'. In the gameplay, the player runs around what looks like a U.S. military camp, with walls plastered with photos of President Bush, Secretary of Defence Donald Rumsfeld and British Prime Minister Tony Blair, among others. This is the only VEO video game which we can say, with some degree of certainty, was released directly from jihadists in an official fashion. Seeing as the publishing media-platform [الجبته الإعلامية الإسلامية العالمية] 'Global Islamic Media Front' was organisationally connected directly to AQ.

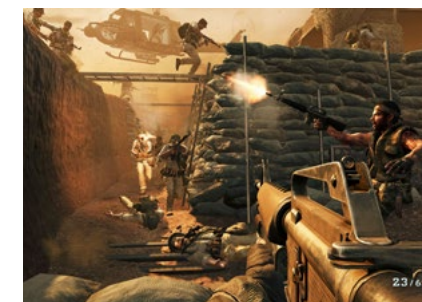
In March 2013, jihadists supporting AQ in Morocco (AQIM) released another video game online called 'Muslim Mali'. In this video game, the player is piloting an aircraft fighting for AQIM against French jets.<sup>29</sup> But it had a limited distribution and did not receive any success worth mentioning because of its basic/simple design, which was ridiculed for being too technologically primitive for its time, easy to win and having ideological contradictions.

In September 2014, IS supporters released a video game titled [صليل الصوارم] 'Clanging of the Swords', as a mod of the very popular GTA series. And one year after: in September 2015, a more advanced version was released on YouTube called 'Clanging of the Swords 2' [صليل الصوارم 2]. Although IS advertised this game in one of its publications, they did not publish or distribute the game via their official media platforms. Maybe because the developers were supporters of IS and not official members of their media/marketing units. Also, it must be stated that there is

insufficient data to support this particular gaming case and little evidence of anyone actually playing this game. Which questions whether or not this is merely a case of a trailer for a non-existent video game, i.e perhaps produced for propaganda purposes of pushing and broadcasting the IS brand to gamers for recruitment purposes and giving the impression of an organisation with the technical capacity to produce AAA video games.



Photo from an IS propaganda video, showing IS-fighters in combat against Kurdish forces. Using the same FPS/COD POV and aesthetics. Source: Handout / Alamy Stock Photo



In-game screenshot from 'Call of Duty' (COD) showing the well-known FPS POV and aesthetics. Source: pumpkinpie / Alamy Stock Photo



Jihadi supporters modify existing video games to create propaganda videos copycatting real-life scenarios. Source: SITE Intelligence Group <https://ent.siteintelgroup.com/Chatter/media-unit-uses-jihadi-mod-for-gta-5-online-to-craft-is-style-video.html>

An attempt led by IS supporters in 2015 to recruit children in the USA to carry out individual operations via the game 'Roblox' is also registered. Additionally, IS supporters have added a mod to the game 'Arma 3' (Bohemia Interactive, 2013), a quite popular military game enjoyed worldwide. In this game, the user could choose to play as IS militants<sup>30</sup> against Peshmerga/Syrian armies.

**It is unknown if this video game strategy has been fully adapted and proven its efficiency. AQ tried to use it 15 years ago and IS as well, more recently.**

Seeing as 'Arma 3' enables players to play video games as jihadists, it might be splitting hairs to call this a mod of the game, as it is more of a built-in feature and already provided option – not an alteration. This points at how VEO and gaming research might be using the term 'mod' too loosely, as it signifies more of a 'hack' or repurposing of the game, than merely playing within a game's given and provided limitations, design and rules.

As for educational games or so-called 'serious games', the most famous example is the app 'Huroof' distributed for android in May 2016 by [مكتبة الهمزة] al-Hima Library, which is an electronic/online book publisher under IS. The objective is to teach children the Arabic alphabet, where violent militant words and 'cute' imagery is tied to each letter. For instance: B for bomb; R for rocket-launcher; K for kuffar, and so on. Use of youthful 'cute' imagery, in what has been dubbed 'memetic warfare'<sup>31</sup>, is another jihadist and VEO gaming case and exemplification. Cartoon ninjas, ice cream cones and memes from and within youth-focused mainstream games such as 'Roblox' and 'Minecraft' are part of this.

And as for the usage of the genre 'serious games', we have how flight simulators were deployed prior to the 9/11 attacks, as mentioned in the introduction. Could there also be a similar VEO use of the very popular truck simulator games? Weaponised vehicle attacks, a common REMVE tactic to target protestors and civilians, is based on IS' pioneering<sup>32</sup> of such 'vehicle ramming pedestrians' attacks. In accordance, the use of truck simulator games for training and familiarisation is not a stretch. At least the jihadist motivation is clear with Sheikh Abu Muhammad al-Adnani's call to followers to smash heads with a rock or run people over with a car, as a minimum show of support.<sup>33</sup>

Regarding how gaming or consoles like PS are used for jihadist recruitment or inspiration to participate in battle and warfare as foreign fighters, we have the case of a so-called Abu Sumaya al-Britani, who left Britain in 2013 to join IS. In an interview with the BBC from somewhere in Syria in June 2014, he described how he came to join the 'holy war', which Muslims are leading against the 'infidel West'. He added that he enjoys being part of IS more than playing the infamous 'Call of Duty' games, which he was infatuated with. Recruitment and influence strategies are being developed and advanced all the time by and for jihadist organisations, as well as by other VEOs. In order to adapt to constantly shifting circumstances and pressures, all available online tech options are on the table.

Together with the ongoing online siege surrounding jihadist media activity today on SoMe, it is very likely that jihadists will look for non-traditional media and new platforms to spread their ideas and attract new followers. Examples are the most recent smartphone apps or online games providing in-game chat services for mobile phones.

It is unknown if this video game strategy has been fully adapted and proven its efficiency. AQ tried to use it 15 years ago and IS as well, more recently. Still, it is difficult to say whether it has created a noteworthy and replicable success for jihadists, or that there are unique and imminent threats and opportunities in gaming that need our attention and further investigation. As for video games as a steppingstone towards radicalisation for Muslim youth, direct data to confirm that is lacking. First and foremost, the effect and efficiency of such a strategy. It also remains uncertain whether jihadists have reached the level of technological capability and development that allows them to develop their own games, or even if they are focused on this pursuit at all.

Conversely, AAA<sup>34</sup> video games are a massive production endeavour – too complicated, sprawling and unyielding to undertake while upholding worldwide communication security and going undetected under the surveillance radar in conflict zones and warfare. More likely, the most apparent benefit that jihadists can gain from the available online games is to use them as safe platforms and an alternative to chat rooms and forums, which are under strict surveillance and curating. In other words, their importance for jihadists so far is probably as an operational tool – not an ideological one.

## AN EVERGREEN TOPIC: VIOLENCE IN CONTENT

Blaming actual violence on the violence portrayed in the entertainment media goes back to Tertullian's lament on watching gladiator combat in amphitheatres and the negative effects it might have on society. Since then, the blame game has moved on to literature (novels and pulp fiction), comic books and music with 'explicit lyrics'.

Today, the discussion continues with video games and that which sets them apart from previous media, namely, the interactivity and agency embedded in the DNA of gaming, along with their more immersive nature and the neurological influence (or perhaps even damage) all of this might have on gamers.

Therefore, for jihadist and VEO study and research purposes, a targeted approach to gamer communities must be utilised to identify vulnerable, at-risk gamers, and filter the mature gamers from the immature. Maturity does seem to be the main discerning factor with regards to violence in video games – mature players seem to understand artificial systems in which actions are only part of the game and not a one-to-one representation of real life. In accordance with this, implications of unethical video game content are highly contingent on the gamers themselves. A gamer is not easily brainwashed by engagement with games, and should, therefore, not be treated as a 'moral zombie'. More active engagement with, and studies of, gamers are needed to gain greater understanding of in-game violence as a contingent form of violence. Nevertheless, 'ludic maturity'<sup>35</sup> is apparently the barometer for being able to engage with unethical content without being influenced or harmed by it.

Cautious optimism is present in the literature discussing video game violence – stating that, generally speaking, players are unaffected by unethical games, as long as a maturity and an understanding of games as systems is present in order to have the critical capacities to assert ethical agency. Two types of processes are described in this context:

### Synchronic process

- subjectivisation when experiencing a game

### Diachronic process

- players create their own history/culture while playing games

This leads to a natural concern surrounding children and teens as 'inexperienced gamers,' or perhaps better stated, 'immature gamers'. Inexperienced means something different, and it is hard to describe all the gaming experience younger

gamers often have as not counting for some type of 'experience'. These same kinds of arguments and conclusions are found in discussions on violence in movies and other entertainment content.

In accordance with such arguments, introducing the 'MoDViG'<sup>36</sup> model (moral disengagement in violent video games model) builds upon Albert Bandura's<sup>37</sup> work on psychosocial mechanisms and techniques. This model refutes that gamers enjoying virtual violence somehow equals their enjoyment of real violence, as they are aware that 'this game is not real'. The MoDViG model has four main propositions:

### PROPOSITION 1

Video game characters are intuitively perceived as social beings

- Corollary: video game characters have a mind of their own

### PROPOSITION 2

To feel that 'this is alive' implies treating it with respect

- Corollary: moral socialisation of individuals

### PROPOSITION 3

Improper treatment of video game characters violates norms and triggers guilt

- Corollary: guilt effectively diminishes enjoyment

### PROPOSITION 4

For the sake of enjoyment - moral disengagement in violent video games

- Corollary: frame the violence as justifiable

According to Bandura, and others, moral disengagement techniques are frequently embedded in warfare and military training. Similarly, to our focus, jihadists and other VEOs are most likely copycatting, developing and improving upon well-tried digital strategic outreach techniques and community building including military grooming/training methodologies.<sup>38</sup>

Bandura's work provides us with eight factors that, if cued, can trigger cognitive moral disengagement:

- Moral justification (greater good/religious purpose)
- Euphemistic labelling
- Advantageous comparison
- Attribution of blame
- Displacement of responsibility
- Diffusion of responsibility
- Disregard or distortion of consequences
- Dehumanisation

The primary *raison d'être* of these eight factors are real-life contexts such as minimising guilt for soldiers and combatants in warfare scenarios. Bandura has shown that proneness to moral disengagement predicts criminal acts, mainly pertaining to the fifth cue factor where displacement of responsibility is the foremost trigger. Displacing personal responsibility on Allah,<sup>39</sup> for instance, where jihadist VEOs are concerned. Moreover, for moral disengagement purposes, video game violence can be embedded in WWII or 'war on terror' scenarios and storylines, within games, for example, where the enemies are frequently Russian nationalists, jihadist groups from the Middle East, South American rebels, drug dealing cartels, Lovecraftian occultists or white supremacists and Nazis.

As exceptions to these rules and as alternative accounts, some game designers aim to inspire reflection rather than only amusement. This is the case in the 'No Russian' mission of 'COD: Modern Warfare 2' and the 'By the Book' mission in 'GTA V' (Rockstar Games, 2013); or the entirety of 'Spec Ops: The Line' (Yager Development, 2012) and 'BioShock'. These games highlight how hedonic and eudaimonic entertainment function, respectively: either for carefree enjoyment and simply having a good time or for personal growth and meaningful experiences causing deeper reflection.

To conclude this short discussion on violence in video games, from a strictly VEO-outreach standpoint, it is not all that important how, when, why and what kind of violence is connected to video gaming. Rather, from jihadism to far-right extremism, the phenomenon of gaming as connecting tissue,<sup>40</sup> seems to be the important point to focus on, bringing together primarily young men from disparate backgrounds and paths.

From high-achieving students to drug addicts, there is a measurable VEO proclivity for recruiting<sup>41</sup> young men with aggressive tendencies, i.e. young men who can easily adapt and endure violent behaviour or have a sanitised, distanced relationship to violence, bloodshed and gore. The intense years' long debate on violence in FPS games, or violent games in general, can thus be summarised with two questions: Do these types of games attract people with aggressive tendencies? Or, do these games increase the aggression levels of otherwise harmless people who play them? A classic 'chicken or egg' causality dilemma.

However, this is an irrelevant discussion for VEOs looking to recruit aggressive and combat-ready young men. Either way, VEOs are likely to be accessing a transnational recruiting pool, which includes young men with an above-average aggressivity. As a consequence, the 'chicken or egg' dilemma is irrelevant, when both are 'edible' for any entity, who is aiming to 'eat' them both up.

## DIGITAL HAZARDS

On a connected but slightly tangential note, when discussing harms connected to video games, such as isolation or addiction, the research of Anne Mette Thorhauge and Anne Birgitte Brus<sup>42</sup> points out that there is a certain implicit assumption or bias that practitioners need to be aware of. Namely, that the cause of any harmful effect, condition or circumstance to be analysed is in/from the games themselves, and not caused by children's or young people's surroundings and everyday life, more generally speaking. Observing video game genres, gamer types and gaming communities, according to Thorhauge and Brus, is a structural, formalistic endeavour. Video games are viewed as programmed systems and audio/visual texts. And the socio-anthropologically oriented gaming research focuses on the gamers and their communities.

Time consumption online, on gaming or otherwise, is apparently the largest concern and the most revealing for parents and practitioners working with children and youth. Besides appropriating a perhaps somewhat outdated dichotomy,<sup>43</sup> between on- and offline activity, time consumption as the most significant factor neglects to take into consideration both video game genres and gamer types. In addition, there may exist an anachronistic status of video games in culture, when compared to other more 'prestigious' cultural leisure activities.

Of interest, according to the work of Herath and Whittaker, and keeping in mind the proliferation and plethora of communication technology and devices today, the online digital space 'does not appear to be replacing the offline domain', with some exceptions. Analysing 231 IS members in the US to assess whether their on- and offline behaviours formed discernible pathways, a mercurial blur emerges when trying to pinpoint in which domain an activity takes place exactly.

Face-to-face interactions and IRL<sup>44</sup> local networks, such as those established in back rooms of bookstores<sup>45</sup> or dingy cellars, and including secretly exchange cassette tapes some years ago and onwards to DVDs, websites and E2E<sup>46</sup> encrypted messaging services (e.g. PSN, Wickr, Signal, Twitter or WhatsApp) are still the modus operandi for VEO radicalisation and recruitment. Moreover, Herath and Whittaker report a systemic bias in reporting jihadist cases, where the Internet perhaps plays a greater role than in actuality. To conclude their study, they register loose, borderless patterns of behaviour that 'lone wolf' violent actors and their 'virtual packs' (Gabriel Weimann)<sup>47</sup> move along and between, according to a spectrum of internet usage, as follows:

INTEGRATED PATHWAY
<ul style="list-style-type: none"> <li>■ Heavy engagement with co-ideologues across both domains</li> <li>■ Pre-existing relationships</li> </ul>
ENCOURAGED PATHWAY
<ul style="list-style-type: none"> <li>■ Considerably less offline contact</li> <li>■ PalTalk and Skype</li> <li>■ Logistical and financial support online</li> </ul>
ISOLATED PATHWAY
<ul style="list-style-type: none"> <li>■ Lack of integration with co-ideologues in either online or offline domain</li> <li>■ Incredibly rare</li> <li>■ Less clear network connections</li> </ul>
ENCLOSED PATHWAY
<ul style="list-style-type: none"> <li>■ Greater offline network interactions than online</li> </ul>

Researchers and P/CVE practitioners should be wary, as 'ontologising an online space that is distinct and autonomous from the offline domain may be a false dichotomy'. VEO attackers' behaviour patterns, including jihadists, operate within and spill over both domains in complex and multifaceted ways. In today's digitised world, is it even possible to discuss on- and offline activities as completely separate entities?

Is this conceptually or even technically feasible, or is it impossible? As 'online' presence, accounts, profiles and avatars are active and working/interacting with algorithms and other users, a person is simultaneously 'offline' participating in other unrelated IRL activities. The two domains are not mutually exclusive or alternatively turning on and off, only when our attention is directed towards one or the other. Both are 'on' and 'off' at the same time. In connection to this discussion, jihadists operate on a certain level of communication security and surveillance awareness. A high-value target (HVT) will more likely live exceedingly 'offline' than other persons of interest. Osama bin Laden is the ultimate case example, showing how precious and sought-after VEO leadership goes 'off the grid'; not the disposable foot soldiers and fresh recruits. This is an acknowledgment that offline and old tech snail mail activity is somewhat more secure – preferring smoke signals and messenger pigeons over radio waves, optic fibres and 5G.

### GENRE CONTINGENCY

Returning to Thorhauge and Brus and their focus on time consumption in connection to alarming gaming behaviour, video game genre is the contingent baseline. And seeing as time consumption is what causes concern with at-risk groups and fears of radicalisation and jihadist influence, a closer look at genres is in order. Some gaming genres require a large and serious time investment, while many others are a more simple form of procrastination and diversion. Some games demand a larger continuous, uninterrupted serious time commitment and investment before the game even starts to make sense and provide any pleasure to the player.

This is one of the main reasons why gaming becomes such a social lifestyle choice and identity marker, especially with games such as 'The Witcher 3: Wild Hunt' (CD Projekt Red, 2015) or Bandai Namco's 'Souls' series (FromSoftware Inc., 2009) and many other comparable Japanese RPGs<sup>48</sup>. With turn-based strategy games, such as



Sid Meier's 'Civilisation' series (MicroProse, 1991) and the 'Age of Empires' series (Ensemble Studios, 1997), there is a certain high level of complexity or difficulty, combined with brutally punishing and demanding gameplay, which is their main attraction.

Thorhauge and Brus clarify how gamer engagement for youth is comparable to playing soccer or learning a musical instrument and playing in band concerts. However, sports and music activities are viewed as a much 'healthier' leisure activity than leading or even participating in a guild online to slay dragons and orcs in a digital dungeon. When teenagers skip meals or do not participate in family gatherings because of sports or musical endeavors, this is not viewed through the same lens of 'addiction' as it is when gaming is the cause. This is because these types of activities enjoy broader social acceptance than video games. Social prestige and pressures are also prevalent between gamers and influence gamers' expectations towards one another, as seen in how gamers often create alliances and organise themselves into different forms of social gatherings such as a 'guild'. Inasmuch as many gamers regularly play together in one or several multiplayer games, time consumption for gamers should not be an automatic indicator of jihadist radicalisation or VEO influence.

## RAIDING AND TROLLING

Cyberbullying and online 'trolling' probably came into being, linguistically speaking, as an evolution from Scandinavian and mostly Norwegian folktales of physical trolls living under bridges. These types of trolls assume a wide variety of forms representing diverse beliefs and stories. As a result, trolls can be anything from grotesque fiends with distorted features and a deep-seated hatred of people to seductive, dangerous characters more similar to Celtic fairies. One type of troll would guard a bridge, and anyone passing by just wanting to get over to the other side and on with their business without any delay, would be stopped by the troll – only to be given free passage if they answered riddles, performed tasks/quests or provided presents.

An example of a time-demanding aspect of online gaming could be the so-called 'raids'. To illustrate, a raid can usually involve more than 40 players and numerous guilds combined. Time consumption and levels of serious gaming commitment can, therefore, be designated by different types of guilds, such as: family guilds and casual guilds, on the one hand, and raiding guilds or über guilds, on the other.

Furthermore, guilds are called 'clans' in 'Counterstrike' and 'Call of Duty', and linguistically or terminologically speaking comparable to jama'at in jihadist contexts. As raids are a popular element within gaming, Linda Schlegel<sup>49</sup> uses an example of IRL jihadist raiding to illustrate the organic, bottom-up gamification of Marc Sageman's thesis of a 'bunch of guys' radicalising together and each other.

In a jihadist WhatsApp group, raids against individuals perceived as 'sorcerers' were shared as a kind of geocaching<sup>50</sup> with jihadist appeal. In a similar vein of gamified harassment of conceived opponents, calls for raiding as online tormenting of minority groups treated as an IRL game are to be found on gaming adjacent apps and services like Discord and Steam etc.<sup>51</sup> This type of raiding often takes place just two minutes after a call or instruction is given, showing the swiftness with which racially motivated harassment can be directed online. A swiftness in reaction time similar to supporters of IS on Facebook. Raids against communities deemed political enemies, shows how, for example, Steam can be a more toxic space for other users and gamers.<sup>52</sup>

IS sympathisers, using a so-called 'swarmcast model', known from communication studies, have disseminator online accounts. It functions as a distributing network of media mujahideen, rather than producing original content, to ensure a continuation of IS content availability. In this fashion, they create topic/brand awareness that is never 'out-of-mind'. As an example, raids on pro-LGBTQ gaming communities is one specific way that this combative activity can provide pathways for younger people to become more engaged with extremist VEOs<sup>53</sup> while gaming. These raids are a form of pestering, with vexatious, provocative spam and hate speech, not unlike the troll, flame and engage techniques, described by Ahmed al-Rawi with regards to IS' E-Jihad and activities in the virtual caliphate.

To gain publicity and attract attention, a VEO attack is in reality an act of communication, according to Schmid and de Graaf (1982).<sup>54</sup> Consequently, communication is the oxygen of VEO acts. And trolling, if nothing else, is definitely one way of communicating. According to al-Rawi, trolling definitions have four main features:

- Aggression
- Deception
- Disruption
- Success

Al-Rawi adds two more categories, which he deems relevant in analysing parts of IS-related online behaviour: thwarted/frustrated and impoliteness. Under 'thwarted' trolling, al-Rawi positions: sarcasm, contempt, amusement or suchlike. And under 'impoliteness': genuine, malicious or strategic. Flame trolling is described as vitriolic, while kudos trolling is humorous. Trolling seeks to create an argument and entice other gamers/users into endless discussion, hijacking an ongoing discussion and creating a distraction. Flaming is similar, but harsher, more personal and far more aggressive; insults, obscenity, swearing and curses are often deployed when Islam is the topic.

**A LETTER TO THE NEXT DISCIPLES**

**SAINT TARRANT'S NEXT DISCIPLES ARE OUT THERE SOMEWHERE, AND I HOPE THEY'RE READING THIS. IF YOU'RE ONE OF THEM AND YOU'RE READING THIS NOW, THIS LETTER IS FOR YOU.**

**YOU HAVEN'T ATTACKED YET, YOU'RE STILL PLANNING, PREPARING AND TRAINING, BUT THANK YOU IN ADVANCE FOR YOUR INCREDIBLE SACRIFICE.**

**BELIEVE IN YOURSELF AND KNOW THAT WE BELIEVE IN YOU. WE'RE ROOTING FOR YOU, WE WANT YOU TO SUCCEED. HAVE FAITH IN GOD, THE BOSS, YOUR PREDECESSORS, YOUR FUTURE DISCIPLES, AND US - YOUR MANY SUPPORTERS ACROSS THE WEST.**

**IF YOU'RE CURRENTLY WORKING ON YOUR MANIFESTO, MAKE IT PERSONAL. EXPLAINING YOUR WORLDVIEW, POLITICAL BELIEFS, MOTIVE, GOALS AND TARGET SELECTION ARE STANDARD PROTOCOL, BUT TAKE IT A STEP FURTHER. SHARE YOUR LIFE, BACKGROUND, HOBBIES AND PASSIONS. SHARE YOUR RADICALIZATION STORY WITH US. LET US GET TO KNOW AND ADMIRE YOU ON A PERSONAL LEVEL. ENABLE US TO CELEBRATE YOUR ATTACK, AS WELL AS THE INCREDIBLE YOUNG MAN WHO CARRIED IT OUT. OH, AND PLEASE INCLUDE LOTS OF ICONIC SELFIES WE CAN USE TO MAKE OC. WE'LL BE MAKING EDITS AND TRIBUTES TO YOU FOR YEARS TO COME, AFTER ALL.**

**IF YOU CHOOSE TO LIVESTREAM YOUR ATTACK, THANK YOU. WE WON'T LET YOUR GLORIOUS DEED BE ERASED. WE WILL ARCHIVE AND IMMORTALIZE IT FOREVER. WE WILL SHARE IT EVERYWHERE, SO THAT IT CONTINUES TO SERVE ITS INTENDED PURPOSE - MOTIVATING AND INSPIRING WHITE MEN TO FOLLOW IN YOUR FOOTSTEPS.**

**DON'T LET THE DERADS, DISAVOWERS OR CONSPIRACY FAGS MAKE YOU SECOND GUESS YOURSELF, INFLUENCE YOUR DECISIONS OR STOP YOU FROM TAKING ACTION. AS YOU'VE SEEN OVER THIS PAST MONTH, THEY'LL FIND AN EXCUSE TO DISAVOW ANYONE. BUT AS YOU'VE ALSO SEEN OVER THIS PAST MONTH, ALL OF US TRUE ACCELERATIONISTS WILL FIGHT FOR YOU, CELEBRATE YOU, DEFEND YOUR HONOR AND MERCILESSLY BTFO YOUR DETRACTORS. AND WE WILL PREVAIL.**

**FOLLOW YOUR HEART. YOUR HIGHER CALLING IS YOURS ALONE. YOU KNOW THE ENEMY YOU'RE DESTINED TO FACE, THE TARGETS YOU'RE DESTINED TO KILL, THE WEAPONS YOU'RE DESTINED TO USE, AND THE BATTLE YOU'RE DESTINED TO WIN. LIKE TARRANT SAID, "VICTORY IS YOURS, IF YOU HAVE THE WILL FOR IT." HAVE NO DOUBT - YOU GOT THIS!**

**AND LIKE SAINT EARNEST SAID, "YOUR SACRIFICE WILL BE REMEMBERED. ALWAYS." THAT'S OUR COMMITMENT TO YOU. WE LOVE YOU, WE THANK YOU, WE SALUTE YOU, WE WILL NEVER FORGET YOU.**

**FUCKING HAIL, BROTHER!!!**

**WITH LOVE, RESPECT AND DOUBLE ROMANS, TERRORORAM**

FRFL.SITEINTELGROU.COM

Encouragement to copy the Christchurch attacks and video game influenced POV. Quote: 'If you choose to livestream your attack, thank you'.

Source: SITE Intelligence Group <https://ent.siteintelgroup.com/Far-Right-/Far-Left-Threat/praise-of-mass-shooters-as-saints-advice-for-writing-manifestos-shared-by-accelerationist-neo-nazis.html>



**GAMING AND RELIGION**

Seeing as no specific jihadist gaming fatwa is available, as far as is known, this begs the question whether or not any use of gaming platforms for operative purposes is doctrinally sanctioned – a question of sharia compliance. Most inquiries into this matter should therefore focus on how media jihadists can operate with video gaming while providing or attempting to justify or legitimise their actions under strict sharia rulings. Are jihadists free to use gaming as yet another media platform, under the already provided legal sharia permissions, or does this type of activity fall outside the overall sharia umbrella and media fatwas? In other words, is gaming a rogue phenomenon officially unsanctioned by jihadist leadership, where jihadist practitioners or supporters work under a temporality of suspending the religious jurisprudence of halal/haram as witnessed elsewhere, in order to reach a greater primary religious tawheed goal?

This idea of sharia suspension – for a type of means justifying the ends – works in tandem with Hegghammer’s observations of the flexibility and pragmatic movement towards more liberalism over time within jihadist culture, as is discussed in more detail in ‘Video gaming: media or culture?’ There are numerous known generic jihadist media fatwas and/or encouragements, which could include, assume or presuppose online gaming communities and adjacent apps and gaming activities to some degree or another. The following is a short selection:

## INTERNET AND ‘DIJIHAD’: JIHADIST LEADERSHIP FATWAS AND STATEMENTS

### JUNAID HUSSAIN

2018 (recruiting to ISIS) call-to-action:<sup>55</sup>

‘you can sit at home and play Call of Duty or you can come and respond to the real call of duty...the choice is yours’.

[Comment: A backhanded criticism of gaming and gamers while simultaneously taking advantage of its popularity and influence to recruit.]

### OSAMA BIN LADEN

In a May 2010 letter to a ‘Shaykh Mahmud’ (found inside bin Laden’s Abbottabad compound:

‘...[T]he wide-scale spread of jihadist ideology, especially on the internet, and the tremendous number of young people who frequent the jihadist websites, [are] a major achievement for jihad...’

### AYMAN AL-ZAWAHIRI

In a June 8th, 2010 interview with AQ media outlet al-Sahab:

‘ [T]o the knights of the jihadi media, I say: May Allah reward you the best reward for your good job in serving Islam. You must know that you are [fighting] on a great front of Islam, and that the tyrants [of our time] are very disturbed by your efforts...’

### INSPIRE EDITOR AND AMERICAN AQAP MEMBER, SAMIR KHAN

In issue VII of Inspire (September, 2011), in an article titled ‘The Media Conflict’:

‘ A powerful [jihadist] media production is as hard hitting as an operation in America... There were namely three things that the brothers focused on in their media efforts: quality and content of productions, internet security and a media dissemination strategy. While America was focused on battling our mujahedeen in the mountains of Afghanistan and the streets of Iraq, the jihadist media and its supporters were in fifth gear. Thousands of productions were produced and dispersed to both the net and real world. Something that was produced thousands of feet above the mountains of Afghanistan was found distributed in the streets of London and California. Ideas that disseminated from the lips of the mujahedeen’s leaders were carried out in Madrid and Times Square’.

Much more research could be done on the internal jihadist debates of the permissibility and/or usefulness of gaming under the umbrella of sharia compliance, if such internal debates even exist.

## JIHADISM: RELIGION AS GAMIFICATION/GAMIFICATION OF ISLAM

Gamification is mentioned several times both in this report and in other VEO gaming studies, without any further discussion or exploration of the theories behind it, notwithstanding that it is a major point and tool in RAN’s six-point typology and EGRN’s five-point streamlining.<sup>56</sup> Perhaps a short presentation of gamification theory, history and definitions is in place to shed some light on this relatively new theoretical concept and how it might relate to jihadism and religion moving forward.

Obliging someone to do something causes the task somehow to cease being ‘fun’ or ‘playful’ and transforms the task into a tedious chore or boring workload. The basic idea<sup>57</sup> is that play can be a powerful, efficient way to motivate people. Games are incredibly engaging and motivating, and gamification draws even more specifically upon video games, rather than just play or any type of game.

Historically, games have probably been around forever. Early evidence of games includes two or more people taking some sticks and stones to do something play-ful, fun and competitive, rather than using them for mere survival and mundane everyday utility. Kalah (aka Kalaha), a Mancala type of game, originated in Africa and the Middle East and has been played for 7000 years, according to several sources. Board games, chess, backgammon and cards have also existed in many forms and variations for a long time across cultural and ethnic divides. Games almost cross over into sports, and it is hard to completely discern whether chess, darts and billiards, for example, are games or sports. With regards to gamification, it is helpful to know what exactly is a video game, even though many would argue that it is not necessary to define it – that the act of definition limits the medium, as Fitz-Walter (2018) points out.

Nevertheless, Jesse Schell<sup>58</sup> provides us with a useful attempt at defining games with the following points:

- An activity that is entered willingly
- Having goals
- Having conflict
- Having rules
- Something that can be won and lost
- An interactive activity
- A challenge
- Something that creates its own internal value
- Engaging
- Closed, formal systems

In other words, according to Schell, ‘a game is a problem-solving activity, approached with a playful attitude’. In accordance, a video game is a game that uses digital technology – digital graphics, video and audio – to create new and immersive worlds to play in. Ernest Adams<sup>59</sup> adds that the computer relieves the players of the burden of personally implementing the rules, as was the case in games previously. Thus, video games free the players from the role of gamemaster or ‘God’.

Could these same points used to define a game be applied to describe why some youths are attracted to VEOs and jihadism? This question is worth a closer investigation since these types of movements (VEOs and jihadism) – much like games – provide conflict, goals, rules, something to win or lose, an interactive engaging challenge, own internal values and above all, a closed, formal system to abide by and be part of.

Returning to the brief history of gamification, Thomas W. Malone,<sup>60</sup> in the early 1980s, researched computer game heuristics in order to design enjoyable user interfaces. This provided a steppingstone for Stephen W. Draper,<sup>61</sup> who in the late 1990s analysed ‘fun’ as a candidate software requirement. Finally, the term ‘gamification’ was coined in 2002/2003 by Nick Pelling, according to Fitz-Walter (2018). From 2010 onwards, the term gamification started to become more popular and in 2011 the first annual gamification summit was held, thus providing the opportunity for advertisement. Game-based marketing was, then, quickly solidified by Gabe Zichermann and Joselin Linder,<sup>62</sup> inspiring organisations that manage innovation processes to ‘gamify’ such processes and their motivational toolbox.

**Today, digital nudging and motivational tools are everywhere, including in our pockets via smartphones, with prompts from our local supermarkets, fitness centre, bank, school or even workplace.**

At the same time, academics also began to discuss ‘gamification’ and warn of or critique its potential with the work of Sebastian Deterding,<sup>63</sup> for instance. Furthermore, the use of game design elements in non-game contexts was more firmly defined in 2011 with studies and research results such as, ‘Gamification: Using Game Design Elements in Non-Gaming Context’<sup>64</sup> and ‘From Game Design Elements to Gamefulness: Defining Gamification’.<sup>65</sup>

All sorts of applications for devices started to use elements taken directly from video games. Most sources point to the apps ‘Chore Wars’ (Kevan Davis, 2007) and ‘Foursquare’ (Foursquare Labs, 2009) as the first movers and main influencers in this gamified trend.

‘Chore Wars’ is a task management app with RPG-inspired interface; where toilet cleaning meets D&D. ‘Foursquare,’ probably the more known app of the two, is a city guide, location finding, check-in, recommend and compete SoMe platform. Today, digital nudging and motivational tools are everywhere, including in our pockets via smartphones, with prompts from our local supermarkets, fitness centre, bank, school or even workplace. In this way, gamification is being used for advertising and marketing, motivating us to buy, study or even work out harder to get that summer body. Essentially, then, the lessons taken from video games – which were initially used to incorporate a reward system based on points, badges and leader boards (PBL) – are now used to motivate in a non-gaming context.

However, that is not the entire story of gamification. As internal criticism appeared, this reductionist reward system seemed to be missing several defining elements of gaming, such as the challenge and mastery aspects. More fittingly, some started to name this simplistic PBL reward system ‘pointsification’, instead of gamification. And that instead of just using PBL to motivate, gamification should also deliver a rich narrative, compelling challenge, item collecting and upgrading or levelling up opportunities, for instance.

Questioning why games are engaging and looking at the many reasons or motivations for gamers to invest so much time in gaming is similar to the discussions in this report regarding the many gamer types.<sup>66</sup> In addition, the most common reason across all types is to pass time and have some fun. And as an attempt to unpack ‘fun’, Raph Koster<sup>67</sup> suggests it arises from mastery, comprehension and solving puzzles or overcoming obstacles and challenges. In short: learning is the addiction – the drug. In addition to the discussion of gamer types and identities (cf. Bartle, Yee and Schlegel) and of motivations to joining VEOs and jihadist organisations (cf. Al-Rawi), it is important to add a discussion of gaming genres,<sup>68</sup> such as puzzles, sports, action, fighting and adventure, and in particular their connection to gamification theory. How do these game genres create a taxonomy of terms, describing ‘fun’ in certain video games, to be used and utilised in non-gaming contexts for attraction and motivation?

As an attempt to describe the aesthetics of a game and to move away from terms such as ‘fun’ and ‘gameplay’ towards a more directed vocabulary, the following is a presented taxonomy that includes but is not limited to:<sup>69</sup>

**Sensation**

- Game as sense-pleasure

**Fantasy**

- Game as make-believe

**Narrative**

- Game as drama

**Challenge**

- Game as obstacle course

**Fellowship**

- Game as social framework

**Discovery**

- Game as uncharted territory

**Expression**

- Game as self-discovery

**Submission**

- Game as pastime

Again, this taxonomy dovetails with the taxonomy of motivations for joining VEOs and could be one approach for focused jihadist data collection. And returning to Koster and his focus on learning, it is clear that not all learning is fun, which is why learning/teaching needs to be designed well.

This is the case with jihadist ideological teaching and indoctrination scenarios, especially visible with the change from the old guard (e.g. AQ, Taliban) to the new guard (e.g. IS, HTS) and their differently ‘modernised’ youth outreach.

In order to design an attractive educational environment and create interesting challenges, Fitz-Walter (2018) argues, there must be a set of goals and rules. If feedback is added along the way, learning, development and mastery can be achieved. As an example, suppose the goal is to put a ball in the hole. Clear feedback can be in the classic PBL format with a scoreboard as immediate and clear feedback on a gamer’s progress. However, a satisfying auditory ‘thwack’ when the ball is properly hit, and similar audio/visual cues can also give players a sense of how they are doing. Such cues provide a sense of how gamers can improve and whether or not they have mastered a given challenge that is tailor-made and uniquely interesting to them (cf. game genres above). Sometimes all of this is presented in a fourth-wall breaking tutorial part of the game or as in-game characters that appear in different parts of a game to teach the player new skills and how to move forward.

Fitz-Walter investigates motivation even further and defines it as: initiation, direction, intensity and persistence of behaviour (especially goal-directed behaviour). In other words, classic ‘carrots and sticks’ methods similar to the gamification blueprint of PBL is insufficient. In religion, reward and punishment is mainly presented as heaven and hell; jannah and jahannam in Islam. Focusing too much on reward systems, however, is an extrinsic motivation that might run into troubles, such as boredom from a lack of interesting challenges, learning curves or any mastery to achieve.

This is reminiscent of the simplistic mentality of wage slavery, where the assumption on improving work performance was to reward good performance and punish poor behaviour. Daniel H. Pink<sup>70</sup> presents the following points of criticism on reward/punishment models that causes the value of rewards to diminish over time:

- Extinguish intrinsic motivation
- Diminish performance
- Crush creativity
- Crowd out good behaviour
- Encourage cheating (shortcuts, unethical behaviour)
- Addictive
- Foster short-term thinking

Criticising extrinsic motivation and highlighting the benefits of intrinsic motivation, according to Pink, leads to an inherent satisfaction of the activity itself, when the drive is internal. This provides a longer lasting, self-sustaining and fulfilling experience in terms of gamified methodologies. Questions asked by Hegghammer, as will be discussed in the next chapter, on what motivates certain jihadists to a long-term or short-term engagement in that particular ideology, movement or group are comparable to questions of whether jihadist fighters or their supporters have intrinsic or extrinsic motivations for joining or participating and how that affects their longevity. 'Conveyor belt' theories on jihadist recruitment have been thoroughly criticised and more or less abandoned within the P/CVE community, and it might be useful to add discussions of gamified motivation to understand where the latest motivational trends and theories are.

Even within religion there is a traditional critique of the classic extrinsic heaven or hell dichotomy, with images of burning down heaven and putting out the fires of hell, in order for the pure intrinsic motivation of worshipping God to manifest. Within gamification theory, focusing on intrinsic motivation rather than solely on extrinsic PBL reward systems has led to further investigating what makes games intrinsically motivating, as Fitz-Walter points out. As one of many theories to explain this, the self-determination theory (SDT) was initially presented by Edward L. Deci and Richard M. Ryan in 1985.<sup>71</sup> And further developed and solidified in 2000.<sup>72</sup>

To summarise, SDT proposes that satisfying innate needs requires three main components: autonomy, competence and relatedness. Autonomy is all about free choice, or the illusion thereof, and the ability to make choices freely without any pressures or extrinsic influences but based on personal interests, not fear of punishment or a desire for rewards. Competence is related to skill level and being presented with fitting challenges that are neither so easy to complete that an activity becomes boring, nor too difficult to complete so as to create anxiety. It is about creating a space for growth and development, a teaching/learning environment with ongoing feedback and incremental new challenges to facilitate increased mastery and new levels of upgrade and advancement. Relatedness is about personal and social connection and network – the maintenance of close relationships, such as friendships and family bonds – all of which can be provided in healthy and positive, constructive contexts or in parasitical, self-destructive VEO or jihadist milieus and environments.

## INTER-RELIGIOUS ENCOUNTERS IN GAMING

To open up the jihadist gaming discussion even further and suggest alternative directions for future research and specialisation, a brief mention of research done on religion and gaming on a macro level is in order. Inhabiting yet another sparsely populated research area, Rachel Wagner and Lars de Wildt have tried to investigate the relationships and comparability between gaming and religion.

In 'First-Person Shooter Religion'<sup>73</sup> Wagner asks whether it is 'possible that video games might be performing some of the same functions as religious activity'? Comparatively, as 'products of human culture', both 'provide us with structures', 'temporary escape', 'interpretive maps for how the world works' and 'order and purpose'. Wagner's arguments and comparisons between gaming and religion are similar to the earlier comparisons<sup>74</sup> on jihad as a gamification of religion – a discussion that focused more on the motivational forces and inspirations than the essence of the two domains.

As for Lars de Wildt, he asks<sup>75</sup> how role-playing religiosity affects a player with a different (or no) religion? And how do video game creators think, use and include religious aspects into their games, compared to how players read and decipher this programmed religiosity? De Wildt's study is 'based on a qualitative analysis of in-depth interviews held with 20 international players from different (non-)religious backgrounds'. Investigations into what the appearance of religion in games actually means to the people making and playing them is further developed by de Wildt, focusing on the 'Assassin's Creed' (Ubisoft, 2007) series, for instance. According to de Wildt, a nostalgic 'marketable religion'<sup>76</sup> is created as a commodified use of religion in game design.

Another category, according to de Wildt, is the 'Eclectic Religion', found in fantasy and post-apocalyptic game genres. Here, games 'historicise and combine religious cultural heritages' or 'even apply it in new ways by using divine metaphors to deify 'Awe-ful Technologies' such as AI and the atom bomb'. In conclusion, de Wildt notes how in gaming, religion is 'no longer a question of belief or disbelief in ultimate truths, but rather something to be tried on, compared and discarded. Thus mediatised, millions of players globally have all the possible beliefs in the world available to them'.

## WHAT ARE JIHADIST GROUPS AWARE OF?

Within the P/CVE community, practitioners have started to look at and include gamification theories into their investigations of VEO online gaming activity. Perhaps gamification theory with a focus on motivational factors and goals can also be used in the broader jihadist P/CVE non-gaming discussions. For instance, what are the proclaimed goals of jihadist movements, if we take them at face value?

One might say jihadist VEOs have both religious and political goals, where each set of goals have their own unique rewards and punishments. However, in an Islamist POV where it becomes harder to demarcate the religious from the political, goals, rewards and punishments might become interchangeable. This is ultimately to jihadist VEOs advantage, i.e. using religion's otherworldliness to obtain political, earthly goals. To further elaborate, religious goals could be boiled down to pleasing, obeying, worshipping and loving Allah, the Creator God, in order to show gratitude for His generous act of creation. The reward for this is jannah and the punishment for not doing so is jahannam. On the other hand, the ideological, political goals could be summarised in the aim to create political egalitarian changes in regimes, improve the lives of the poor and downtrodden, protect the weak, provide more freedom and punish all criminals, tyranny, imperialism and corruption.

The reward for these goals is a just caliphate with a rule of law,<sup>77</sup> accountability, peace and human dignity. A type of jannah on earth. And the punishment is conflict, war and continued disgrace and 'fitnah', i.e. the current status quo, a jahannam on earth, so to speak. In order to create counter-narratives, agreeing on the proclaimed jihadist goals could be a highly productive point of departure. In conversation with at-risk Muslim youth, agreeing on the goals while attempting to convince them of how to reach those admirable goals without killing or dying is the way to go. Without any use of violence. Which there should be plenty of opportunity to do, both in religious and political terms.

Discussing benefits of the game motif for jihadist propagandists, Dauber, Robinson, Baslios and Blair<sup>78</sup> note how other jihadist groups drew their own conclusions, upon seeing better IS propaganda videos than their own. Meaning, other jihadist groups observe their own causality between IS propaganda and how thousands were joining IS. This is not the researchers' conclusion, probably because there might exist many other reasons for joining IS than propaganda alone.

Dauber et al. continue to discuss games as a strategic communication and propaganda platform by examining how video games might work because they engage multiple senses and provide a unique sense of 'transportation' as well as presence (e.g. the use of FPS camera angles) or familiar commonality as part of a pop meme culture. Such findings are based on actual playing of games and video game research. Nevertheless, these researchers doubt that any jihadist groups are aware of such research, which is highly speculative, to say the least, especially with the documented (by Krona and others) circulation and SoMe sharing of media usage, IT skills, alternative computing, marketing, branding and online recruitment DIY content amongst jihadist networks and supporter communities. Why not a jihadist sharing of gamification/gamified theories as well?<sup>79</sup>

**In conversation with at-risk Muslim youth, agreeing on the goals while attempting to convince them of how to reach those admirable goals without killing or dying is the way to go.**

Why doubt the sharing and awareness of similar media research highlighting and pointing to certain learnings and useful traits of video games for communication purposes? For some reason, jihadism researchers are often 'surprised' or 'caught off guard' by the level of tech knowledge and intelligence or trendy know-how apparent in jihadist online communities, which somehow contradicts the concepts of modern 'jihadi cool' they simultaneously seem to ascribe to.

Why not expect jihadist groups and supporters to be as digitally native and tech savvy as research communities are, or even more so in many instances within niche foci? Seeing as jihadists groups have an agenda and particular ideological and operative interests, why not assume that they are part of the same mediated world, consuming mediatization, marketing and branding theories, perhaps even quicker than most?

Jihadist adaptability and evolution in recent years speaks in favour of these assumptions and speculations. And given that VEOs are connecting people from disparate backgrounds<sup>80</sup> and paths, from high-achieving students to drug addicts and from PhD scholars to gangsters, mono-causality and low intellectual expectations is a dead end. Especially when investigating the pantheon and manufacturers amongst ideologues and jihadist leadership or other strategic authority figures, not just the foot soldiers and cynically expendable cannon fodder of jihadist movements.



AY RESOR



**VIDEO GAMING: MEDIA OR CULTURE?**



The popularity and recently diversified widespread global reach of video games is necessary to take into account when considering its relevance and attraction to jihadists and VEOs. No longer a niche strictly male subculture, as it was perhaps in its formative days, gaming has swiftly become a mainstream ubiquitous all-inclusive activity. Globally, gamers of all types now total over 2.81 billion (closing in on becoming one third of the world's population, with a 59% male and 41% female distribution).<sup>81</sup> Industry revenues around almost \$180 billion (USD) in 2020,<sup>82</sup> dwarfing global film and music industries, combined. As such, talking about video games as an insignificant peripheral phenomenon does not make sense anymore, for any reason or purpose, let alone in combination with VEOs.

**Digital games are a post-industrial, post-modern product creating new spaces for 'sociality, virtuality and identity construction'. And since its conception,<sup>85</sup> gaming has been at the forefront of the emergence of computers, the internet and participatory culture.**

According to some reports and estimates, when also considering eSports tournaments and similar live spectator gaming events together with the rest of the gaming industry, the total sales/revenue/audience numbers globally surpass those of the combined film, music and sports industries. Video gaming is an overwhelming sociocultural phenomenon, to say the least. And accordingly, gamer communities are far from homogenous as these once monolithic communities have now evolved and fractured into a myriad of niche and subgamer communities.

When discussing majority/minority communities and subcultures out of sync with mainstream society, the real question is: who is out of sync with whom? If the growth of gaming culture continues, and the 'mainstream' non-gamer becomes an unaware part of the non-gaming subculture, in the near future, frictions and a sense of exclusion are bound to appear. As demonstrated above,<sup>83</sup> video games are increasingly becoming embedded in our everyday lives and impacting other areas of social life. Video game culture is diverse, complex and constantly evolving; and we have since the 1980s witnessed an 'institutionalisation of video game practices, experiences and meaning'<sup>84</sup> in many spheres. Accordingly, we must consider various sociological and cultural professions, such as casual to avid gamer, game designers, journalists, games academics and museum directors et al.

According to Muriel and Crawford (2018), as cultural products of our digital age, video games are perhaps the best entry points to understanding digital culture. Digital games are a post-industrial, post-modern product creating new spaces for 'sociality, virtuality and identity construction'. And since its conception,<sup>85</sup> gaming has been at the forefront of the emergence of computers, the internet and participatory culture. This participatory potential is visible in the continual construction and modification of media content such as: wikis, tutorials, walkthroughs, fan fiction, cosplay and modding – to name a few. Increasing gamer numbers are present everywhere in exhibitions, museums, conferences, festivals and tournaments, regardless of and across demographics, including the creation of a multitude of gaming-related jobs, courses and degrees.

Perhaps fitting to describe this trend as the 'videoludification of society'; a gamified society. Where video game methods and motifs are applied to other fields, such as education, labour, therapy, business, warfare, academia and social relationships, i.e. social reality turned into a video game. And depending on whether we apply an optimistic or pessimistic POV, this development is part of a post-identity scenario and such possibilities. As exemplified in the movement towards fluid, multiple and fragmented identities, and a society 'progressively becoming an assemblage of technologically mediated experiences that connects different realities, situations and cultures', gamer identity, in this context, can be viewed as the epitome of both individualised and communal identity construction. Gamer identity, then, theoretically competes with other global, transnational contemporary identities such as the religious, political or ideological ones, as well as against the more traditional local, regional and national ones.

## ELEMENTS AND ECOSYSTEMS

Consisting of four categories, Jesse Schell (2014) provides a useful way to examine the elements of a game, which should be considered for this current jihadist investigation. He calls it the Elemental Tetrad,<sup>86</sup> where some categories are more or less visible to the gamer, as follows:

**Figure 1. The Elemental Tetrad**



Source: 'An introduction to gamification: what it is and how to effectively use it' (Fitz-Walter, 2018).

**THESE CATEGORIES DESCRIBE**

- Aesthetics:** How the game looks, sounds, smells, tastes and feels
- Mechanics:** Procedures and rules of a game
- Story:** Sequence of events unfolding in a game
- Technology:** Any materials and interactions that make your game possible (e.g. paper, pencil, computers)

**ANOTHER COMPARABLE AND USEFUL TOOL**

- Is the gamer ecosystem, provided by M&C Saatchi,<sup>87</sup> which categorises the following:
- Infrastructure:** Both physical and digital
  - Community:** Actors encountered, including but not limited to those a gamer is playing with or against, watching, reading, admiring or loathing
  - Culture:** How people behave. Gamer codes and cues, jokes and memes, music and fashion, food and drink, habits and rituals etc

Media and culture emerge as two overriding umbrella categories to work under with regards to gaming research. And within jihadist studies, two influential anthologies have taken this approach into account. Namely, 'The Media World of ISIS' (ed. Michael Krona and Rosemary Pennington, 2019) and 'Jihadi Culture: Art and Social Practices of Militant Islamists' (ed. Thomas Hegghammer, 2012). Although gaming is very briefly mentioned in a few of the articles included, neither anthology includes video gaming as an independent focus area or entry. Nevertheless, gaming is indeed both an evolution within media and a cultural phenomenon, and many findings and typologies presented in these two anthologies are useful and applicable to our ongoing discussions in this report.

Seeing as independent studies of jihad and gaming so far are limited, this is a discussion worth having. Are all forms of radicalisation the same? Does it make sense to work on all VEOs at once with regards to gaming, or should we do so separately with subspecialisations and unique VEO group foci? A cost/benefit analysis could answer some of these questions, as data collected to measure the potential and size of gaming threats would decide whether the area demands and justifies collective or individual attention. A credible starting point arguably begins with having a look at Hegghammer's work on jihadist culture as it relates to gaming.

**A CULTURE OF JIHADISM**

Hegghammer, in tackling jihadi identity creation, suggests that a study of jihadist culture, art and social practices is 'what warriors do in their spare time'. Furthermore, he offers how 'militancy is about more than bombs and doctrines.'<sup>88</sup> As an apparently superfluous and slippery subject, not 'easily captured by existing terminology', studying both jihadist culture and gaming can, at this point, only be primarily descriptive and a simplistic cataloguing of observed behaviour. Both areas, jihadist culture and media, suffer from a risk of overselling their significance. Research in this direction should, until direct data and ethnography is obtained, only be taken as important steppingstones for further research. Hegghammer acknowledges how his anthology is a challenge of definition exercise, dealing with a borderline phenomenon: jihadist culture. Jihadism and its interaction with video gaming faces the same definition challenges.

According to Hegghammer, there tends to be an epistemological filter and bias when authors 'ignore what they take for granted' or underreport sinful (haram) activities and overreport virtuous (halal) ones. As a description or definition of non-military practices

in jihadi groups, Hegghammer states that it is what takes place 'between the battles and training sessions'. Hegghammer continues his definition pointing out a focus on: gestures, manners, habits, conventions, rituals, ceremonies and observable activities, excluding beliefs, ideas, training, recruiting and fundraising. But are these distinctions even possible? Can we separate these particulars in any meaningful way?

**Here, user movements and flow from training to recruitment, or to instigation/radicalisation and back to leisure can all take place simultaneously or fluently from one to the other, without any clear distinction.**

Such a distinguishing approach could for instance exclude any operational benefits of VEOs' interaction with video games, focusing on leisure only. But the complete exclusion of training, recruitment and fundraising could be practically impossible, as discussed elsewhere, especially with gaming as a fluid intermediate environment and platform. Here, user movements and flow from training to recruitment, or to instigation/radicalisation and back to leisure can all take place simultaneously or fluently from one to the other, without any clear distinction. As such, gaming could be viewed as an all-inclusive jihadist cultural, artistic and social activity.

Hegghammer invites readers to criticise the anthology's conceptualisation so that it can get sharper. In that spirit, how can an anthology on culture not study online lives, as stated? Admittedly, Hegghammer accepts that the relationship between digital and offline lives requires investigation and that it is a rich and fast-evolving domain. Perhaps this evolution is so fast, that both domains have now completely invaded and overtaken each other. Perhaps this is an anachronistic and counterproductive dichotomy, as outlined in 'Jihadist gaming cases: Digital Hazards'.

According to Hegghammer and his co-authors, the 'most striking overall finding' is that jihadist culture seems to be more 'liberal' over time. Therefore, this could have an effect on gaming within a jihadist context and in relation to halal/haram discussions and sharia compliance in 'Internet and 'dijihad': jihadist leadership fatwas and statements'. Also, this is 'highly policy-relevant', as Hegghammer points out, if we want to learn why people join jihadist movements and why some survive longer than others. Perhaps emotional attraction rivals cognitive persuasion, and if so, governments could utilise messages that target emotions and offer VEO

substitution activities that provide equal emotional rewards. Hegghammer's selection of seven cultural genres does not exhaust the topic and is intended to inspire others to do more research.<sup>89</sup>

## JIHADIST AUDIO/VISUAL CULTURE

As an inspiration for more research and given the freedom that more recent video games provide, it is easy to imagine the ability for jihadist gamers to embed their own social practices, martyrology and dream interpretation into their gaming habits and communities. However, as a digital text and predominantly audio/visual experience, investigating how jihadist gaming ties into the genres of cinematography, iconography, music and poetry would perhaps be more straightforward.

For example, Nelly Lahoud<sup>90</sup> examines jihadist anashid (a cappella songs) and points out how rajaz poetry is used in the midst of battle because it provides sakina (comfort). This is comparable to Homer's Iliad or Icelandic Sagas, al-sayhat al-hamasiyya (screams/shouts of zeal) were used for 'boosting morale of fighters on the battlefield'. In the world of online gaming, which effects could this have? A jihadist gamer or community listening to anashid while playing, or a gamer crew singing anashid together at a tournament or in a café is something to behold. And how about the spillover effects in live chats and how this audible anashid component might affect potential recruits if/when broadcasted directly into the earpiece of a young gamer? Communication has never been easier or more direct than at the moment.

In addition, as seen in the work 'Dawra fi Fann al-Tajnid' by Abu Amru al-Qa'idi (A Course in the Art of Recruiting), along with discovered manuals, such as the one found in Abu Hafsa al-Misri's house in Kandahar, recruitment techniques can be facilitated by current gaming technology. For instance:

- Repetition technique
- Advising and preaching technique
- Supplication technique
- Rhymes and songs technique
- Slogans technique
- Comedy/jokes technique
- Lies technique

The question arises: Are these techniques 'legally' adaptable (sharia-compliant) to a gaming environment without a unique jihadist permission, operational order/decreed or fatwa? And to remain within the audible type of genres, most contemporary studies of hate crimes, jihadists or genocide 'identify emotion as an important catalyst'<sup>91</sup> in encouraging violence or hostility towards a person or group.

According to Pieslak (2012), emotion is significant in cultivating and perpetuating violence, and music is a powerful conduit of emotions and of stamping a message in our minds, playing on emotional reactions that circumvent critical filters. If this is true, how emotionally vulnerable can gaming make someone. With rage-quitting a game as an indicator and the potentiality of anashid and jihadist propaganda nonstop 24/7 directly in the gamer's ears?

Examining jihadist visuals, global marketing and advertising industries have known for years how images grab our attention and are able to communicate ideas in the simplest forms of symbolism. In this same way, the articulation of several aspects of jihadist identity can easily be spotted online such as official insignia for organisational identification or affiliation.<sup>92</sup> Visual motifs of a mujahid, hero, spiritual seeker, martyr and heavenly paradise are abundant. In particular, themes of rifles as iconographic representation of armed resistance as seen in jihadist material as well as war/military video games are common. As a character in any popular FPS video game, the jihadist appears as an idealised, romanticised one-dimensional figure.

Ostovar (2012) highlights how such visuals and iconography are more effective in universally connecting people who don't share the same linguistics or cultural communities than internal complex symbolism can be because basic symbolism can communicate across place and time. Graphic design plays an influential and growing role in our modern societies, and gaming should also be examined as an organic part of that visual graphic evolution.

Audio/visual combinations crystallise in moving pictures, including those in cinema. Anne Stenersen<sup>93</sup> has investigated jihadist cinematography, and as a result, she provides us with the following noteworthy genres:

- Operational videos
- Ideological speeches
- Martyr wills
- Hostage executions
- Feature film

Feature film is a more recent combination of the previous four genres, coalescing into a grand narrative, which is quite comparable to the history of gaming and how, for example, AAA-games of today also contain grand narratives and is formed by a combination of previous smaller genres. According to Stenersen (2012), jihadist media cells have undergone a 20-year evolutionary cycle, from the 1980s to 2000s, including certain historical gaps, jumps and technological and operational milestones.

After that, the 2020s are considered the SoMe jump, according to Stenersen. But perhaps it is more precise to describe the 2010s as the SoMe age of jihadist and VEO outreach, while the 2020s are the age of using gaming, metaverses, AR and VR as the next evolutionary audio/visual-jump, given that computer-generated animation has started appearing in jihadist videos, including infographics and various data visualisations. This indicates how jihadists have the knowhow and are as tech savvy as any other professional graphic designer on the market.

In conclusion, and as a presentational device (not a theoretical claim), three main types of cultural practices are described by Hegghammer (2012), as follows:

DEVOTIONAL
<ul style="list-style-type: none"> <li>■ Prayer</li> <li>■ Invocations (dhikr/du'a)</li> <li>■ Ablution</li> <li>■ Qur'an recitation</li> <li>■ Weeping</li> <li>■ Fasting</li> <li>■ Exorcism</li> </ul>
RECREATIONAL
<ul style="list-style-type: none"> <li>■ Anashid singing</li> <li>■ Poetry reading</li> <li>■ Video watching (at all stages in their jihadist career)</li> <li>■ Storytelling</li> <li>■ Dream interpretation</li> <li>■ Sports (swimming, horseback riding, archery/shooting, martial arts)</li> <li>■ Festivities</li> </ul>

## IDENTITY-MARKING

- Dress and grooming
- Noms de guerre (kunya)
- Slogans
- Manners

Recreational types of jihadist cultural practices might be the most applicable category for where to include video gaming in this description and presentational device. This is logical, specifically, under 'sports', as these types of activities often include playing games with children, for instance, in the playground or limited types of board games such as chess or backgammon – depending on sharia interpretation, of course. On the other hand, devotional practices have their place in gaming as well, given the virtual open space and total freedom provided by video games today. This includes identity markings too, given the prevalence of mods and of completely tailoring one's gaming experience and communities. As an interesting note on P/CVE practitioners trying to decipher VEO identity-marking, it is already known that extremist behaviour is agile and avoids detection by speaking in culturally codified ways.<sup>94</sup>

To further complicate matters, there are at least two layers of codification, if not more. Gamer lingo is the most common, baseline first layer; on top of that is a VEO internal lingo. Making space for differentiation between RWE and jihadist linguistic codification makes a third layer to keep in mind. Not to mention the rabbit hole of subcultures and communities, both within gaming subgenres and globally speaking, adding to those layers of culture-specific codified speech.

## JIHADIST MEDIA WORLDS AND GAMING

Turning now to media jihad and operatives, also referred to by IS as 'media activists', the new media reality should be viewed as a tech altered media pretext to any analysis. Michael Krona describes this transformative media environment/ecology as a 'profound connectivity through which places, events, people, and their actions and inactions, seem increasingly connected'.<sup>95</sup>

## ACCORDING TO KRONA'S MEDIA ANALYSIS OF IS, THEIR GLOBAL MEDIA ENDEAVOURS ARE FORMS OF

- 'Intersectional media strategies combining a decentralised technical infrastructure with a simultaneously highly centralised messaging practice'
- 'Ecological processes in which the relationships between the central organisation and its supporters are manifested through forms of media activism, including tactics for disseminating propaganda attracting and targeting mainly Muslim youth around the world'

There seems to be a misconception that IS only relies on a decentralised structure of communication, despite evidence of a highly centralised chain of communication. In fact, it is neither all one nor all the other: IS combines both. Krona describes IS propaganda narratives as an attempt to convince or show off a peaceful and just caliphate, welfare system, eulogisation of martyrs, religious tenets and political history. Designed to appeal mainly to alienated Muslim youth, IS propaganda is intended to create alternative views of the world, politics and religion. Furthermore, this propaganda provides motivational narratives about brotherhood, belonging, significance and equality, with a heroic portrayal of IS fighters and the cowardice of all their opponents. Creating a sense of pride publicly in being a part of the organisation, there are levels of participation for combatants, media activists and long-distance supporters.

As a predominantly SoMe propaganda dissemination, which could easily be copied to online gaming platforms too, IS provides vehicles for formation of group identities<sup>96</sup> through these scalable levels of participation:

- A 'macro level' for socio-political ideologists
- A 'meso level' for militant groups and jihadist organisations seeking exposure and outreach
- A 'micro level' for connecting with like-minded others, forming identities and showing support

This could partially explain how IS – a regionally situated organisation in 2014 – could swiftly become a transnational movement and threat. Krona<sup>97</sup> also provides an explanatory model for IS media success in three dimensions of integrated intersections, reminiscent of how VEOs exploit gaming apps described in 'Right-wing extremism gaming research' and Appendix C.

- Access
- Information
- Inspiration

The first dimension, access, signifies being as close to everyday SoMe life and online tools as possible. This involves presence and round-the-clock availability on YouTube, Facebook, Twitter, Instagram, Kik, Snapchat, archive.org, justpaste.it and sendspace.com, for example. Points of access vary and invitations are extended to more secure, encrypted services such as: Telegram, Wikr, Threema, Chatsecure, WhatsApp, RocketChat and Signal. These are the spaces of interaction for recruiters as well as supporters, where parts of IS' virtual presence can be described as a 24/7 help desk or service call centre. Gaming adjacent apps and services such as Discord, DLive or Twitch obscure the demarcation lines between SoMe and gaming, due to SoMe users escaping from increased censorship and content moderation on traditional SoMe services. As for the second dimension, information, this includes mainly providing massive volumes of a wide variety of both historical and current, topical content. This content should be easily adopted and interpreted or comprehended, before relentlessly sharing and passing on to other circles of connection and networks. The third and final dimension is inspiration – the pure ideology and IS' organisational structures and militant units, making DIY terrorist attacks more accessible. As a result, to facilitate these multimodal online messaging platforms, the establishment of several media wings more or less tied to IS took place. This begs the question: is there or could there be a specialised IS-gaming wing or unit, as well?

Official IS media outlets include al-I'tisam, al-Hayat Media Centre, al-Furat and al-Ajnad. And unofficial agencies and foundations include Dawa al-Haqq News Agency and al-Battar Media, providing translation services or other additional work. As for the regional setup, the core media organisations, e.g. Amaq News Agency est. in 2014, follow regional and provincial media bureaus. This regional setup peaked in 2015-2016 and was wilayat<sup>98</sup>-based and -named.

A distribution modus, also demonstrated when examining other VEO gaming interaction, is how the core media accounts utilise decentralised communication practices and replicated content via distant supporters. According to Krona, daily harvesters collect, repackage, compile and re-publish, using many platforms such as pastebin websites.<sup>99</sup> Servers and platforms are optimised to provide content posted for download or streaming in different resolutions and qualities so as to accommodate

differentiated data package sizes, internet bandwidth and connectivity speeds. In correspondence, IS media infrastructure promotes and takes advantage of dominant media activism practices and genres, including participatory journalism, alternative computing, mediated mobilisation and culture jamming, exploiting media and sympathisers as symbolic weapons.

'Culture jamming', for instance, includes using recognisable formats and templates from TV, Hollywood or even Bollywood and Asian movies and recontextualising them. For example, visual materials from known news agencies and channels are used to create instantaneous shortcuts into the interpretative processes of targeted audiences. Video games are yet another popular and recognisable text for VEOs to 'jam' over, as studies have shown. Participatory or citizen journalism is a method for the management of visibility and for controlling the spin on claiming potential political or financial benefits of an attack, making it harder for other VEOs to make false claims or damage sturdy reputations. 'Alternative computing' is associated with hacker or 'hacktivist' groups, such as the 'Anonymous' collective or Julian Assange's WikiLeaks, where reconfiguring systems, apps or websites and developing apps and extensions to web browsers is part of the agenda. As mentioned earlier, GTA and COD mods or 'skins' created by jihadist supporters and other VEOs could be seen as alternative computing and a form of hacktivism – or at least a bridge or a gateway in between.

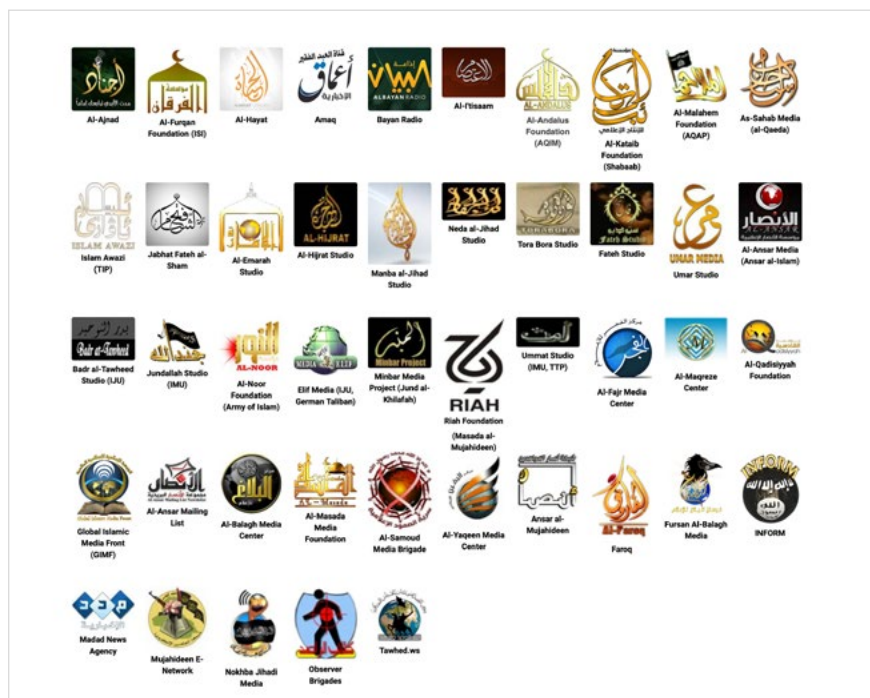
For instance, cyber warfare on its own tends to focus solely on hackers and other IT-savvy programmers and computer/data scientists. However, with the aforementioned enormous number of gamers and the affordable accessibility to these communities and activities, digitally speaking, hackers worldwide are becoming a minority in an ocean of gamers. This development and growth will definitely affect cyber warfare as we know it, moving ahead, if it has not been affected already, both at a conceptual and practical level.

Helpful, service-minded jihadist communities and this instructional, consumer-friendly approach provides the impression or idea of an always open for business 24/7 help desk strategy and care for audience/consumer experiences – an enhanced multiplatform approach supported by providing and sharing alternative computing tutorials and such. In Krona's description, 'clicktivism' is thus created, where political and ideological participation can be reduced to a minimum. Gaming provides a similar participatory ease and 'clicktivist' approach, and perhaps can be included nowadays in the discussion of 'ludic propaganda', gamified ideology or 'gametivism'

as part of this jihadist media approach. Seeing this multiplatform and multinarrative approach, where several layers of messaging separates IS from previous jihadist groups, it makes sense to include gaming as yet another online platform for mediated messaging.

## MEDIA ORGANISATION OF JIHADIST CONTENT

Discussions on gaming and sharia compliance<sup>100</sup> interweaves with Michael Krona's investigations, mentioned above, on IS' decentralised or centralised mediation. In particular, Krona's studies on how IS' fluid media infrastructure prompts certain autonomous media activism practices such as participatory journalism and mediated mobilisation is useful to our investigation. Accordingly, IS supporters have moved from predominantly consuming and relaying official IS propaganda to actively producing their own material.<sup>101</sup>



Logos of jihadi media group-affiliations and units where many of the same media mujahdeen operate. Several of these no longer exist and have merged into one another.

Source: SITE Intelligence Group <https://ent.siteintelgroup.com/mediagroups.html>

This development has resulted in IS supporters forming their own media groups and collectives with unique names, brands and logotypes. Such media collectives are quite hard to define in terms of organisational structures and online network architecture in relation to IS proper, but a few of those found include: Al-Battar, Hadm Al-Aswar, At-Taqwa, Aladeyat, War and Media, Asawirti Media and Virtual Battlefield.<sup>102</sup>

All producers of IS supporter-driven media content on behalf of or aligned with IS create an 'expanded outsourcing of propaganda', according to Krona, who describes it as widening the construction of social/hyper realities with, for example, video productions, visual posters, pamphlets, online commentaries and engagement, supporters are co-creators of jihadist simulacra. Is jihadist gaming part of this expanded sharia agnostic freelance outsourcing or even officially sanctioned by jihadist leadership, organisations or movement? According to Krona and others, mediatisation is the process in which societal institutions increasingly submit and adapt to various forms of media logic and trends. AQ, IS and their supporters are not an exception if we investigate the enhancing mediatisation of global jihad in a media saturated environment with everchanging platforms and media consumption habits.

Current SoMe trends with short, visual, perforated extracts, such as Instagram stories or TikTok videos, exemplify how media content is losing its referentiality. Going viral today basically means it is a near impossible task to pinpoint exact origins, sources or a patient zero. Establishing the current phase of jihadist mediatisation is completely different from the way followers of AQ operated media in the 1980s and 1990s, including the research community. Much academic research and scrutiny is desperately needed, as Krona and others also point out, on the intersections between media content, form, platforms and audiences. Gaming and gamer communities should be an integral and inseparable part of these investigations, the data collection and overall conversation.

## RIGHT-WING EXTREMISM GAMING RESEARCH

Christchurch was a turning point for VEO gaming studies, as discussed earlier. It drew considerable attention to the field; however, this attention was directed first and foremost towards RWE VEOs, not jihadism as much. With this in mind, and with RWE leading the research field, what are the comparisons that can be made and which findings can we draw upon to jihadism and gaming? What are the lessons learned? And is any of it adaptable to jihadist subspecialisations?



As a start, we should modify the term 'leading' RWE VEO field, as it is relative only to the lacking focus on jihadists and gaming. On its own, calls to conduct more research are still common, and according to RAN,<sup>103</sup> we are not facing any research gaps but a large 'research hole'. To further complicate matters, extremist activity on gaming adjacent platforms has 'no clear definition', as of yet. It vaguely describes cross-posting through a broader ecosystem of gaming-related content. As an attempt at a definition of gaming adjacent communication platforms: for all intents and purposes, it is a more recent evolution of SoMe with a foundational unique gaming profile and market, which has since its inception broadened out to include/cover numerous other thematic profiles and subject matters, besides gaming. As these services were initially established to service gaming communities, they have quickly become popular SoMe platforms in their own right. Including a provision of safe havens and exile for those VEOs and supporters who are pushed off, for example, Twitter or Facebook. And a known impact is how gaming adjacent platforms are now mimicking content moderation and algorithm challenges<sup>104</sup> previously posed by prototype VEO SoMe and closed/encrypted online groups.

Services provided by gaming adjacent platforms include: creating individual profiles, groups and communities to not only discuss but also play games together; post, comment, share and like content, as perfected by well-established SoMe services; and live chats via text, VoIP<sup>105</sup> or video. Services also include the ability to record or stream your gaming screen and experience. Unlike similar functionality within any given game, adjacent apps provide all of these features and more across games and platforms (devices). This means groups or entire gaming communities can move around together externally across consoles, PCs or mobile devices to play almost any game imaginable – not only those games that internally provide these SoMe equivalent communication services and features. As a consequence, stronger social bonds and networks might be established, which are not game specific and platform/console independent.

Part of this short history of gaming adjacent apps, and politically similar to the watershed Christchurch attack, is the gamergate campaign in 2014.<sup>106</sup> These events turned the spotlight on how alt-right extremists and other predators were grooming youngsters<sup>107</sup> via online games. Furthermore, gamergate showed how far-right personalities were popular and directly attached to video game communities, focusing on the so-called 'white disenfranchisement', consisting of reactionary cultures in gaming communities obsessed with race, religious conflicts, gender equality, feminism, migration and refugees or LGBTQ and other minorities.

According to RAN, the following is a rundown of traditional gaming adjacent platforms, to provide unfamiliarised readers a more concrete idea about what this current development<sup>108</sup> contains:

#### **Discord**

- 300 million registered accounts/7 million servers
- 140 million monthly active users
- Observed:
  - Neo-nazi ideology, far-right narratives, hateful memes
  - Charlottesville 'Unite the Right'
  - Boogaloo Boys, Qanon, inceldom
  - Limits on who's allowed to join: no minorities, no women, no black people (photos of skin colour must be provided as documentation and proof)

#### **Steam**

- 120 million monthly active users in 2020

#### **Twitch**

- 9.5 million active streamers
- Wide topical range: outdoor activities, (e-)sports, cooking, arts and craft, music, animals, political talk shows, podcasts, just chatting streams

#### **DLive**

- 5 million monthly active users

#### **PlayStation and other gaming consoles**

- PSN: 100 million users
- Xbox Live

#### **Gaming forums**

- E.g. Reddit: 30 million members
- E.g. Minecraft forum: over 5 million members

#### **YouTube**

- 1 billion hours of content watched per day
- 'Let's play' videos freely available on YouTube

#### **Chanboards and image boards**

- 4chan, 8kun (previously 8chan), Endchan

#### **Gaming-related content on non-gaming platform**

- Theoretically, any available platform, blurring all distinctive lines and any ability to clearly define gaming adjacent apps

The Institute for Strategic Dialogue (ISD)<sup>109</sup> determined some key findings, trends and patterns when investigating RWE VEO activity on gaming adjacent apps, to provide the groundwork for future analysis. For instance, on DLive there is a development worth taking note of, which is how newer more financially attractive alternatives are appearing and pulling influencers, such as Trovo<sup>110</sup> and Odysse.<sup>111</sup> Additionally, militant groups, such as Nordic Resistance Movement (NRM), Misanthropic Division (MD), Azov Battalion, Atomwaffen Division, Sonnenkrieg Division and Patriotic Alternative (PA), are sharing graphics either created by proscribed VEOs of their ilk or promoting their activities. ISD points out how certain strategy games on Steam, with a WWII theme or taking place during the Crusades, are particularly popular for these VEOs and their supporters. Perhaps similar trends and unique brand popularity can be investigated and found for jihadist gaming activities. Also, it is entirely possible that more concerted efforts to radicalise are taking place in-game, seeing as this part of the apps' activities was not captured in ISD's analysis.



**CONCLUDING REMARKS – LOOKING AHEAD**

Prior to any type of constructive analysis, discussion, assessment and conclusion on the subject of VEOs (including jihadist movements) and gaming, a long series of first-hand, direct data collection must first take place. An advantageous place to start is EGRN's list of research gaps<sup>112</sup> and the current available narratives and typologies<sup>113</sup> on observed and registered VEO misuse of gaming spaces. That this type of comprehensive data is lacking<sup>114</sup> seems to be agreed upon by all current researchers in this niche field. Additionally, some research<sup>115</sup> even points out the lack of basic gaming knowledge and the lack of time and skills needed to operate and navigate through gaming platforms as main challenges, which practitioners linked to gaming and P/CVE are encountering. As such, at the moment this nascent field is at an introductory, presentational and theoretical application<sup>116</sup> level only and no hard data-based conclusions can be made at this point.

As an example, connecting PS usage to the 2015 Paris attacks, as mentioned in the introduction, is surrounded with uncertainty and controversy. Unconfirmed and conflicting details are reported, and it is quite difficult to correctly assess the scarce information available. Yet, it is a case worth mentioning, as Foreign Policy's cyber defence correspondent Matt McClure<sup>117</sup> and others do.

McClure has warned of such gaming-related security risk scenarios when considering the future of war. Indeed, some intelligence services have been concerned about video games and virtual worlds ever since the 9/11 Commission reported on attackers using flight simulators and games, as also mentioned in the introduction. Gaming provides anonymous virtual environments for both enemy nations and VEOs, McClure points out. This amounts to completely unfettered access to communications, recruiting, financing, planning and operations. To security analysts, the main challenge is to correlate real-world threats or behaviours with in-game behaviour, for starters. It is necessary to look at gaming the very same way jihadists and VEOs do – for mission or operation rehearsal scenarios and for communication and planning purposes, not merely to have fun. Additionally, several security projects have been launched attempting to crack console encryption, according to McClure. Therefore, the Paris attacks' connection to gaming could do with further examination.

Did all Paris attackers have a PS at their locations, or just one? Were they just passing the time and having fun before their attack, or did they use the PSN to communicate with one another about the attack among other mundane gamer/conversational topics? Did they use the PS to plan, train and organise some or all of their attacks, using certain strategic/operative games? If so, which games? Only unconfirmed speculation abounds at this point.

Nonetheless, plenty of other confirmed VEO gaming cases exist to validate concern, interest and overall further investigation into this subject matter. Besides, Jan Jambon's released statements stand unretracted, uncorrected and uncontradicted, as far as is known. Therefore, the questions surrounding the involvement of gaming consoles in the Paris attacks serves more to illustrate the dire need for targeted data than a case to build any solid analytical foundations on.

**It is necessary to look at gaming the very same way jihadists and VEOs do – for mission or operation rehearsal scenarios and for communication and planning purposes, not merely to have fun.**

Generally speaking, ethnographic work on clandestine research areas such as VEOs, their members and their surrounding supporters/sympathisers, is quite challenging for several self-evident, and perhaps a few unnoticeable, reasons. First of all, availability of VEO members is rare. Underground outlawed movements are not known to be the most willing participants in research interviews and focus groups. Security issues will most likely be an imminent concern, both for the interviewer and for the interviewee. Add to that the global, national and regional obstacles to be considered, including basic linguistic and cultural differences as well as variations in digital laws, data regulations and legal privacy policies to abide by and find a methodology to work under. All of these are considerations, and we have not even touched on the enormous technical challenges involved with designing and building an entirely new methodology for collecting verifiable, validated research data on online gaming communities, gamers and the games themselves to combine with available jihadist research data.

With further regard to gamer communities, at this point we only have insufficient indicators to inform us on how vulnerable or resilient the communities already are on their own to VEO approaches, without any external intervention. According to RAN<sup>118</sup> (Radicalisation Awareness Network), gaming communities should be empowered to deal with such challenges, for instance by enabling gamers to report and notify any extremist content pushed at them.

## OBSERVABLE RESILIENCE

Assuming vulnerability might be a premature assessment. We need to take a step back and ask: how does the gaming community deal and interact with VEOs on their own without any P/CVE interference? Does the gaming community even need P/CVE assistance? According to RAN, the research community does not have the answers to these questions right now. Actually, some pushback from the gaming communities against VEO content and activity is reported, which encourages moderation and less alarmist assumptions from a P/CVE POV. Increasing awareness, education, reporting/notification tools, content moderation and promoting inclusion is always a safe bet, as long as investigators and practitioners do not underestimate or undermine the organic resilience and immunity occurring independently within gamer communities.

One example of such gamer community resilience is counterspeech<sup>119</sup> content. This tactic is deployed by individuals or groups online in countering hate speech, extremism or misinformation by presenting critical responses, debates or alternative narratives in reaction to offensive narratives, and indicates an active anti-extremist progressive community. Other similar examples are found in connection to the so-called 'Let's Play'<sup>120</sup> videos. These videos are created by gamers who may or may not be VEO sympathisers. Gamer communities will frequently show instances of their own resistance and counter narratives<sup>121</sup> as comments on such videos or in the chat thread, if it is a live-streaming transmission and topics lean towards VEO support or propaganda.

## GAMING AS EMPOWERMENT

At the same time, researchers should keep in mind and incorporate the positive benefits and effects of gaming itself together with the constructive social aspects found in gamer communities. Some of these proven<sup>122</sup> benefits include the improvement or development of: problem solving skills, teamwork, confidence, positive mental health, appreciation of games as an art form, jobs/entrepreneurship, positive role models/influencers, creative storytelling and building empathy with powerful stories for positive social change. For instance, there is a contemporary genre called 'empathy games'.<sup>123</sup> These games promote positive role-playing, decision-making and exploring consequences without real-life repercussion – comparable to teaching children to socialise with other children in their early years, in contrast to leaving children to their own devices for online play with anonymous

gamers, without any adult supervision. The last thing anyone needs is hurling accusations, stigmatisation and vilifying an already battered gaming community, where violence<sup>124</sup> in video games has been controversially debated for the last 30 years. From Donald Trump<sup>125</sup> to Hillary Clinton, the entire political spectrum in the USA seems to agree on uniquely blaming and pointing out violence in video games and not gun control for creating school shootings—whenever it fits their political agenda.<sup>126</sup> Gus Van Sant's 'Elephant' (2003) is an interesting, quiet meditation on that American theme.

## GAMINT: A NEED FOR GAMING INTELLIGENCE?

Calls to incorporate gaming studies into digital security, radicalisation, VEO and P/CVE studies and research are at least ten<sup>127</sup> years old. In 2013, Edward Snowden<sup>128</sup> leaked information that shows how the NSA and CIA embedded themselves in online gaming worlds (e.g. 'World of Warcraft') to infiltrate VEO meet-ups and modes of communication. In accordance with this unquantifiable video game factor, and several other 'transformational shifts in the extremist threat landscape two decades on from 9/11',<sup>129</sup> new policy strategies and exploratory studies are required to counter the next generation of VEO threats.

Indeed, governments, institutions and P/CVE practitioner spaces have started to recognise this need and are acting<sup>130</sup> on it. But as this report is trying to illustrate, much more needs to be researched and investigated, as researchers are still at the most basic level. First and foremost, to address usage of gaming as a potential security threat, we need to start with a risk assessment, i.e. a measurement of size, efficiency, effect, extent and development.

- How big is this jihadist gaming phenomenon?
- How efficient is gaming as a tool for VEOs?
- What are the effects of these gaming tools on targeted victims of VEOs?
- What is the extent of these tools, and in how many ways can gaming be used by VEOs?
- What are the current developments of this phenomenon? Both in terms of the rapidly evolving technological capabilities and improvements as well as the increase or decrease of VEO usage?
- What are the internal jihadist debates? Both religious sharia legitimacy (halal/haram) and whether gaming has or can have a strategic utility and fit for operative use?

Following this assessment, piggybacking on the already existing and extensive video games studies is a necessity. There is no need to reinvent the wheel completely; rather this is a matter of integrating studies of VEOs and P/CVE efforts into current gaming research.

In a Danish context, as a brief example, Anne Mette Thorhauge<sup>131</sup> has done more than ten years' of research on gaming and dependency, using social psychology and neurophysiology to look into gaming economies, gaming genres, gamer types and gamer communities. This type of research is essential moving forward, in order to create awareness and strategies to contain, counter, fight and shut down this threat, if and when needed. Determining the dimensions of any potential threat is the necessary first building block for any type of work on inoculation, content moderation or education that might happen with, for example, school children, parents, teachers, journalists or academic researchers and the right authorities or organisations in both public and private spaces. Intelligence communities, surveillance services and agencies, law enforcement and certain armed and security forces who deal with and combat VEOs should also be involved in the effort. VEO gaming cases, such as those presented in this report, could be random unconnected acts and lone wolf attacks without any organised 'digital packs' and network to support them. Or, these gaming cases could be a sign of a contemplated, contemporary digital and media VEO tactic – a modern gamified jihadist strategy.

It is, until now, unknown if these are the acts of rogue gaming units of non-affiliated jihadist supporters fluidly and chaotically acting independently on the 'terrorgram' and gaming platforms, or not. Compare this discussion to the brief sharia compliance discussion from earlier and the derived jihadist hierarchy or organigram-related issues connected to their media team structures.

For more than ten years now, the same essential security questions remain unanswered. As another example, an awareness brief<sup>132</sup> from the Federal Bureau of Investigation points out in 2014 the following with regards to VEOs and gaming:

#### OPERATION TRAINING AND PREPARATION

Militant extremists use online gaming to train in weapons and accessories, and to prepare, organise, and practice the launch of ambushes, attacks and commit crimes.

#### MONEY LAUNDERING

Features in many video games can be used to purchase and sell virtual items, including groceries, property and clothing, and it is also possible to trade those sums of virtual currency for real money. VEOs leverage this ability to launder and move funds to those in need of financial assistance to conduct an operation.

#### SCHOOLS AND ACADEMIES

Similar teaching methodology used by American (or other) militaries where gaming can assist in training purposes of soldiers and combat units.

Allocating resources towards potential VEO targets, which in our case are gaming communities, should be done according to three main objectives, according to Sandler and Siqueira:<sup>133</sup>

- for defensive policies and proactive measures, such as protecting potential targets by making attacks costly or reducing their likelihood of success, resulting in a limit on society's losses
- for proactive and offensive actions taken on VEO resources, finances, safe havens or sponsors by capturing or terminating group members; and/or destroying their nonhuman resources such as weapons, ammunitions, training camps and communication assets
- for counter efforts which focus on simply inducing VEOs to shift to alternative targets, from soft to hard targets; i.e. from innocent civilians to military or police personnel

This leads to the main question of this chapter: is there a need for a unique and specialised gaming intelligence discipline? In addition to all previously mentioned research gaps, which could be translated to intelligence gaps, it is important to bear in mind the already existing intelligence disciplines and sources.<sup>134</sup>

## ACCORDING TO TERESA KAY WHITMAN, THESE PRACTICES ARE AS FOLLOWS

### **Human Intelligence (HUMINT)**

HUMINT is the oldest form of collection. For many of us, when we think of HUMINT, we think of spies and espionage, cloaks and daggers. HUMINT has been and remains a very valuable source, providing not only facts but also insight into the intentions and even the personalities of those examined. (...) While it might seem HUMINT is a very reliable source, the information obtained often must be validated or verified. As an example, information that might well appear valid might be incorrect or even intended to mislead. Sources might well be compromised, intentionally or unintentionally.

### **Signals Intelligence (SIGINT)**

SIGINT targets most often include communications between people and electronic emissions. SIGINT involves the collecting of information from electronic sources including: telephones; radars; weapons systems; computer-based sources, such as e-mails; satellites; and various military and non-military platforms, including specially capable ships of the United States Navy and aircraft of the United States Air Force. (...) SIGINT has also been used extensively by the American law enforcement community, especially in its efforts against organised crime and drug traffickers, as seen in the captured conversations introduced in the prosecution of many high-profile offenders, including New York organised crime figure John Gotti.

### **Imagery Intelligence (IMINT)**

The revolution in technology has impacted the access to imagery. Commercial systems allow easy access to high resolution imagery. Imagery can be from such sources as visual photography, lasers, multi-spectral sensors, radar and infrared sensors, and electro-optics. Imagery can be used for a wide range of purposes to include a better understanding of areas such as military/defence, governmental and civilian infrastructures.

### **Open-Source Intelligence (OSINT)**

OSINT is publicly available information appearing in print or electronic form including: radio; television; newspapers; journals; academia; internet search engine; commercial databases; satellite imagery; and videos, graphics and drawings. This is a valuable source and with the rapid advancement of technology, especially linked to the World Wide Web, it seems an unlimited amount of information is available with the click of a button on a computer. OSINT is often intended to be seen.

Computer network exploitation (CNE)<sup>135</sup> could be added to this selection of data and information sources and intelligence disciplines. Likewise, there may be a need for 'GAMINT' (gaming intelligence), as an inherently bordering on all-source discipline, which is fluent in nature between all these intel-sources and the somewhat false offline/online dichotomy, as discussed elsewhere.

The gaming intel gathering approach could also be seen as an interdisciplinary operation, instead of a unique discipline in its own right. Regardless, the main data gathering access and process would take place via gaming platforms through limited OSINT to begin with, and through HUMINT to engage communities and create avatars and online gaming presence to gain insider knowledge and possible infiltration into closed VEO and jihadist groups and their supporters. Data forensics would be needed as well. SIGINT can be used to analyse mobile phone and email gaming data, mainly SMS/mail verifications etc. when creating gaming profiles and joining gaming communities. CNE could then be used to decrypt or analyse device or gaming console content and online networks, digital footprints and behaviour. A necessity of collaborating with video game communities, companies and policy makers (on an international level, as this phenomenon is not geographically limited) is also present. Without a sharing of data with researchers and authorities who are putting in place regulations for content moderation/containment, not much understanding can be achieved.

To reiterate, data collection is step one for any threat, risk and response assessment. Also, a thorough discussion is warranted on ethical, practical and technical dilemmas involved with such an all-hands-on-deck approach moving forward. Not only for the thoughts and ideas presented in this chapter, but including discussions from previous chapters on cases, media, culture, data collection and gaming/gamer ethnography.

# APPENDICES

## APPENDIX A. A QUICK HISTORY OF VIDEO GAMES

### **From Nazi codebreakers to bladerunners**

Any gamer above the age of 40 today would have lived through the entire history and evolution of video gaming. Although the phenomenon is not much older than that, the unbelievable breakneck pace with which gaming is constantly developing would suggest otherwise. Engineers messing around with oscilloscopes gave birth to the first video game in history. A laboratory instrument made to display and analyse the waveform of electronic signals was repurposed as a two-player tennis simulation and 'Tennis for Two' (W. Higinbotham, 1958)<sup>136</sup> was born. These machines created in mighty post-war mainframes, with Alan Turing and others as frontrunners, were initially designed for rapid Nazi codebreaking and calculation of ballistic trajectories. Today we call them computers; or even smart-phones and smart 'devices' (e.g. watches, tablets, TVs, refrigerators).

Most people today are in direct contact with the work of Alan Turing when buying something online or visiting any site that uses the CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart). Humans now must prove to online machines that we are, indeed, humans, by performing the most mechanical and mindless activity. This daily routine of absurdity is reminiscent of how the movie character former police officer Rick Deckard in 'Blade Runner' (Scott, 1982) must have felt, not knowing whether he is a human or a genetically engineered replicant himself.

### **War and game theory**

Chicken or egg questions, like whether video games imitate warfare, or if it is warfare which imitates video games, become pointless once we look at the post-war origins of computers and video games. Calculating possible outcomes and strategies for all kinds of economic and military scenarios is the definition of game theory as a science of strategy. Games made computers become real,<sup>137</sup> according to Hito Steyerl. Games are generative fictions – necessary fictions introduced to calculate behaviour with game theory and rational preferences in order to act independently on the basis of full information.

Games can not only be seen as platonic ideals, but also as practical training grounds and behavioural schools – as 'serious games', in Harun Farocki's formulation. Accordingly, video games are playgrounds for free choice and training grounds for habits and rehearsing certain response patterns. As such, the linkage between REMVE warfare, military/combat training application, video games and the internet itself was already there in the foundational bedrock of these inventions and intersections.

Once computers entered academic institutions, gaming became the way of programming experimentation, by playing, testing and reiteration. Replication is the cornerstone of any science. And as a result, we got 'Spacewar!' (MIT's S. Russel et al., 1962). And in 1967, Ralph Baer and colleagues gave us the prototype for the first multiplayer multiprogram video game system: the 'Brown Box'.<sup>138</sup> Taking video games out of the science lab and into the business market, commercial application of these electronic inventions and devices became mass produced into arcade<sup>139</sup> games in the early 1970s. With 'Pong' (Atari, 1972) as the first commercially successful game.

### **Arcades, home entertainment and a community of sharing**

Atari and arcade gaming were prominent in the 1970s, introducing concepts such as high scores and the competitive determination for gamers to beat that 'hi-score' and mark their own space and initials in the arcade machines list. For all other players to see. A concept that is in today's marketing terms called 'gamification', as it was taken out of its original gaming context and used in other areas. See 'Jihadism: religion as gamification/gamification of Islam' for more on gamification and PBL-motivation (points, badges, leader boards).<sup>140</sup>

A new wave of arcade games followed with 'Space Invaders' (Taito, 1978) and 'Pac-Man' (Namco, 1980). However, this did not halt the so-called arcade crash in the late 1970s. This crash made way for home gaming, once again with Atari spearheading the evolution with the introduction of the video game console Atari VCS (Atari, 2600) in 1977, bringing the same hit games from the arcades to people's homes and televisions. 'Space Invaders' once again led the charge in 1980.

Consoles started receiving bad press after the 1983 North American video game crash, which paved the way for home computers to be used for video gaming as well, witnessed by how Commodore Vic-20, Commodore 64, and Apple II were growing in popularity. Ever since, the video gaming industry has been primarily split between playing on consoles or PCs. Early computer games worth mentioning are



'Maze War' (S. Colley, 1974), which is arguably the earliest first-person shooter (FPS) computer game. Furthermore, taking the initial steps towards the internet and multiplayer online gaming, there were games like 'Empire' (Walter Bright, 1977), a strategic turn-based eight-player war game, similar to the well-known board game 'Risk', and 'Spasim' (Jim Bowery, 1974), a 32-player space flight simulation shooter.

Along with computer games like 'Zork' (Infocom, 1980), which was a 100% text-based adventure without any graphics, gamers began to link together up to 16 computers/consoles using the MIDI-OUT to MIDI-IN ports, in the late 1980s. Nonetheless, because of the low computing power and processors, gamers would experience lagging and everything slowing down, whenever more than four players were playing simultaneously. Text-based games, such as 'Zork', are also prime examples of how the gaming communities develop and interact with one another, as well as how game designers choose to present their gaming experiences to the user, including choosing sometimes to withhold crucial control information, allowing for more freedom and exploration. Seeing as these types of games did not come with user manuals or tutorials, a large part of the experience was figuring out just which text commands the game registers, accepts and interacts with to provide feedback and further progression in the game's story and levels.

Once gamers learned any useful tidbit about a new game, it was and still is very common to rush that information out to fellow gamers – a tradition very comparable to how hackers work and collaborate, as well. With computers as gaming platforms, the technology was made readily available for gamers to create their own games with BASIC<sup>141</sup> code programming. Magazines provided source code for readers/users to type on their own home computers, and the readers' homemade code submissions to those same magazines would in return be accepted and widely shared.

#### **Connection: networking opportunities**

Paving the way for the internet and multiplayer gaming in the early 1990s, a significant revolution happened with LAN<sup>142</sup> networks, Windows 95 and affordable ethernet cards for home computers. The so-called 'LAN parties' were born, where gamers would transport their heavy stationary PCs including those huge monitors – laptop availability a rarity in those days – to one another, in order to link up the PCs with one another and compete/interact in real time via LAN. This private idea was quickly commercialised into network cafés, where you could pay to rent a space to bring your PCs for a LAN party. The network cafés developed the basic idea and started to provide those workstations for the gamers, easing the process by

cancelling the transportation part and backache. Video games like 'Doom' (id, 1993) and 'StarCraft', were very popular at those LAN parties. Later on, with the introduction of the internet, those network cafés simply became internet or net cafés.

On 30 April 1993, the European Council for Nuclear Research (in French Conseil Européen pour la Recherche Nucléaire: CERN) put the World Wide Web software in public domain. The standardised chronicle is that the internet was originally conceived to facilitate the demand for automatic information sharing between scientists in universities and institutes around the world. But as we already established, the military-industrial complex, computer technology and academia are heavily intertwined with the origination and ongoing development of video games. It is, therefore, not too much of a stretch to proclaim that multiplayer gaming was a participating midwife in giving birth to the internet.

#### **Influential video games for the uninitiated**

To the uninitiated non-gaming reader, the following are some influential video games worth mentioning in relation to the VEO/gaming discussions. There is typically much superficial focus on FPS games' influence on violence or crime, which prompts this overview of first-person shooters.

Controversy started with 'Wolfenstein 3D' (id Software, 1992), 'Doom' (id Software, 1993) and continued a couple of years later with 'Quake' (id Software, 1996). High levels of violence, murder and mayhem were and are the main point of this continued quarrel. How can we let our children play and enjoy so much nonstop gore and splattered blood for so many hours? 'Wolfenstein 3D' added contentious Nazi symbolism and facing off Adolf Hitler as the final boss in the discussion. As for 'Doom', its addition to the blood and gore hallmark of FPS games was Satanism; this game was also blamed for the Columbine High School massacre. Seeing as all of these influential games were made by the same company, what could be described as the 1990s rise of an 'id'-archetype was ripe for satire.

Enter 'Duke Nukem 3D' (3D Realms, 1996) with its irreverent tone and take on the FPS genre, making fun of and ridiculing all the well-known tropes, while still providing the same expected bloody spectacle and adding exploitative sexual themes and nudity to the mix. The decade closed with the so-called FPS arena shooters: 'Unreal Tournament' (Epic, 1999) and 'Quake III Arena' (id Software, 1999). Arena shooters are a multiplayer subgenre characterised with an unbelievably faster paced last man (or woman) standing ordeal, no storyline or narrative to follow, enclosed spaces (arena) focusing on endless weapon pickups and upgrades plus map/position control and memorisation.

This further cemented FPS's enduring prevalence and high action gore-filled gunplay appeal, and made way for the current 'Battle Royales' popularity of 'Fortnite' (Epic Games, 2017), 'Apex Legends' (Respawn Entertainment, 2019) and 'PUBG' (PUBG Studios, 2017). Another FPS development is the move away from pure fantasy worlds and into historical militarised spaces and warfare themes. Emerging as a mod for 'Half-Life' (Valve, 1998), we have 'Counter-Strike' (Valve, 1999) which brought combat units fighting jihadist groups to the fore.

This was followed by 'Call of Duty' (Infinity Ward, 2003), which initially was based in WWII and subsequently updated to more recent conflict zones and battles with 'COD 4: Modern Warfare' (Infinity Ward, 2007). Today, whenever someone mentions FPS as a genre, 'Call of Duty' (COD for short) is practically synonymous with that description and mostly what comes to mind in terms of immersive video gaming experience, visuals and user features etc. However, FPS/COD is not the only gaming genre causing heated debates on the effects of violent content on children and young gamers.

Developers Rockstar Games (previously named DMA Design) is part of the discussion with their quintessential controversial action-adventure gaming series that started with 'Grand Theft Auto' (DMA Design, 1997). Later, with 'GTA III' (DMA Design, 2001), 3D open-world sandbox game design as we know it today was solidified, and the term 'GTA-clone' is practically describing most newly released AAA-games. Main issues of discontent and debate with GTA are similar to those surrounding FPS and COD games – too much violence. Furthermore, GTA is always set in the seedy underbellies of certain urban criminal worlds and big cities in the US, where the protagonist is connected to or is a member of gangs, mafia, triads or other similar organised criminal organisations. As such, it is often a toss between GTA and FPS games to decide which gaming genre causes the most controversy and scapegoating for all ills in our societies.

MMORPGs are also connected to this VEO discussions, and these types of games started to gain massive popularity with 'Runescape' (Jagex, 2001). This game's online servers were taken offline in 2018, which is telling for the longevity and replayability of this online game. And of course, 'World of Warcraft' (Blizzard Entertainment, 2004) rewrote the rulebook on MMORPGs and is likely to be known by non-gamers, especially for the term 'rage quitting'.

Finally, user-generated content, shifting platform boundaries and assimilation into 'share and like' meme cultures of SoMe apps are best known from games such as 'Roblox' (Roblox Corporation, 2006), 'LittleBigPlanet' (Media Molecule, 2008), and last but not least, 'Minecraft' (Mojang, 2009). Which probably does not need any introduction, as its familiarity and brand has made it a household name.

### **Smartphones – stupid people?**

Another landmark of particular interest in the evolution of video games is when smartphones hit markets in 2007. Revenues<sup>143</sup> from games sold on smartphone apps skyrocketed in the following decade, finally overtaking revenues from console-based gaming in 2015, with the popularity of platform-specific games such as 'Angry Birds' (Rovio Entertainment, 2009), 'League of Legends' (Riot Games, 2009) and 'Clash of Clans' (Supercell, 2012). Providing yet another platform for gaming and more or less terminating the handheld gaming device or console, smartphones are in many ways a significant game changer. As a shrewd countermove to revitalise handheld devices, the Nintendo Switch was introduced in 2017, enabling gamers to 'switch' from a handheld device to TVs, just like any video game console, and back again without missing a beat. Even simultaneous large/small screen gaming is possible on this dual screen device. Indeed, the introduction of smartphones also launched the continuous nonstop gaming flow from one device or screen to another as a cycle, not just for Nintendo. Jumping from phone to tablet, watch, laptop and back to stationary PCs is seamless today thanks to 24/7 cloud<sup>144</sup> services – enabling gamers (or any other type of data user) to continue from exactly where they left off, without any hassle or delay from syncing and up- or downloading data.

If we add the COVID-19 lockdowns to this development, where millions of people worldwide sought refuge from isolation into online gaming communities for entertainment, daily social contact and basic human interaction, we have ourselves a 'perfect storm', widening gamer demographics and propelling gaming into pop culture in a way never seen before. To put it simply, with all of this in mind, today almost everybody and their grandmothers have heard about 'Super Mario', 'Sonic the Hedgehog', 'Angry Birds', 'CandyCrush' (King, 2012) or 'Wordfeud' (Bertheussen IT, 2011).

### **The future is bright?**

Oculus, a virtual reality (VR) company, was acquired by Facebook in 2014. Many similar acquisitions and corporate takeovers are happening these days. What the future of gaming, and the internet in general, holds for us will certainly include such business reallocations along with VR, artificial intelligence (AI), augmented reality

(AR), machine learning, the metaverse, cryptocurrency and non-fungible tokens (NFTs) and blockchain technology. In summation: Web 3.0. And all of this, although quite a mouthful to fully swallow, will probably only be the beginning. With the current and previous speed of technological development, it is most likely unrecognisable to us what gaming might look like in 2032, from a 2022 POV. The immersive nature of the metaverse is on the horizon, and gaming is most certainly a forerunner and testing grounds, including a test case for 'how we tackle extremism in complex spaces with blurred on- and offline borders'.<sup>145</sup>

## APPENDIX B. EGRN'S RESEARCH GAPS

The following are research gaps presented by the Extremism and Gaming Research Network (EGRN),<sup>146</sup> based on the review of 76 articles, discussing how VEOs can and are currently exploiting online gaming, globally:

### **Understanding multiplayer games/platforms as communication channels**

- Especially in non-English/German speaking contexts<sup>147</sup>

### **Use of specific linguistic forms of hate speech**

(how narratives work in this new understudied gaming context)

- May or may not translate into radicalisation/recruitment or serve as an indicator of VEO allegiance

### **VEO financing through gaming platforms**

### **Behaviour of younger gamers**

- Not just to answer why this shift from mainstream to more niche gaming-related apps and media platforms - but online gamers behaviour as such with younger than millennials generations born with this current gaming tech

### **Analysis of gaming narratives in FPS: how 'villains are integrated'**

### **Develop new research methodologies**

- Including new tech for comprehensive analysis of live streaming's unknown potential

### **Correlation between online gaming platforms and offline behaviour<sup>148</sup>**

### **Developing pragmatic intervention on the ground**

### **Positive sides: gamer and community resilience**

- Building constructive communities, not just destructive ones
- Under COVID lockdown/post-corona research (coinciding with the timing of the current TikTok algorithm boom)

Important add-ons and expanding subcategories of research gap number three on 'VEO financing through gaming platforms', mentioned under main findings in EGRN's 'State of Play':

How revenue streams are directed towards VEOs (money laundering). Financial incentivisation, live streaming funding and the ability to do business and make money, co-opted by VEO actors and promoters.

- Meta realm for income generation and new media tools, such as blockchain technology, cryptocurrency and NFTs
- Options to donate or sponsor a gamer of choice also by 'gifting' them in-game virtual items, which can be exchanged to fiat money or cryptocurrency, not only in gaming but newer SoMe also, e.g. TikTok/Instagram live split-screen competitions for popularity/gifts as translated into influencer marketing and SEO<sup>149</sup> -friendly micro bloggers etc
- Video games used to purchase/sell virtual objects: groceries, property or clothing. Then reused by VEOs to launder and move funds to those in need of financial assistance to conduct an operation or attack
- Streaming viewership and in-game/in-video sales figure heavily into business models (for newer streaming/gaming platforms). This is a regulation and policy challenge, struggling against the incentives and business models attractive at new streaming/gaming platforms and companies, for users who can easily become a 'platform/company' themselves<sup>150</sup> via these services
- DLive/Trovo/Odysee<sup>151</sup> (free speech brands)
  - Sites running on alternative currencies are more attractive/lucrative
  - Mottos used such as: world's primary and largest blockchain streaming channel
  - Platform does not take a cut from the user's revenue

## APPENDIX C. VEO MISUSE OF GAMING SPACES – TYPOLOGIES<sup>152</sup>

### RAN'S TYPOLOGY

Six common aspects or narratives in the gaming space currently misused by jihadists and RWE VEOs for their own needs are:

- Production of bespoke games or the production of organisation-made video games catered towards the gaming market
- Modding mainstream games allowing users to apply their own creative licences and modify a game to their liking
- In-game chat grooming serves as a radicalisation tool as extremist organisations are able to exploit text and chat features to 'groom' vulnerable gamers. This then serves as an outreach or recruitment platform
- The migration of users from mainstream offerings such as YouTube and Facebook is common, in apparent favour of more fringe platforms such as DLive, Discord, and Steam
- Use of pop culture assets to modify a video game combined with cultural assets to attract users and draw their interest
- Gamification as a radicalisation tool to motivate users through game design elements

### EGRN'S STREAMLINING OF RAN'S TYPOLOGY

- Gamification concept as a tool
- Development and modification of new games
- Existing online games as communication channels
- Adaptation to gaming adjacent platform (online forums and live streaming co-opting by VEOs)
- Use of cultural assets as an influence

### LATEST EGRN TYPOLOGY

Further developments in VEO misuse of gaming space typology and clarifications are ongoing by EGRN members, as seen in recent articles and essays since 'State of Play' (2021). In accordance, this presents suggestions and delineations as follows:

- Gamification concept as a tool
- Development and modification of new games
- Existing online games as communication channels
- Adaptation to gaming adjacent platform (online forums and live streaming co-opting by VEOs)
- Financing and money laundering possibilities

Basically, the two lists are the same with one exception. The last entry in each, 'use of cultural assets as an influence' and 'financing and money laundering possibilities, respectively. Bullet five in the first list does not really fit with the rest, taxonomically speaking. Seeing as 'use of cultural assets' can easily be included in and be part of bullet points one through four, and even examined in non-gaming contexts. Additionally, this new focus on financial aspects of VEO misuse of gaming spaces is necessary to consider both with regards to gaming as such and on its own, as mentioned in 'GAMINT: A need for gaming intelligence?' with regards to the FBI awareness brief and GAMINT discussion. Also, 'serious games' or 'edutainment' could be considered separately as an additional bullet point or be a major part of or subcategory of bullet point two (development and modification of new games). This would include such games as flight/truck simulators for adults and the like.<sup>153</sup>

## APPENDIX D. GAMER TYPES AND VEO RECRUITMENT

When considering problematic gamer activity, the simplest gamer-type dichotomy is between a casual gamer and a power gamer. Nonetheless, there are several more complex and more (or less) fluid typologies to consider, as they are not mutually exclusive. First off, Richard Bartle's typology of gamer types (or motivations) from 1996:<sup>154</sup>

### ACHIEVERS

- Points and status. Show-off progress to their friends. Collect badges and put them on display

### EXPLORERS

- See new things and discover new secrets. Do not care about prizes and points. Discovery is the prize. Fine with repetitive tasks in order to unlock new areas or deliver some 'easter eggs'.<sup>155</sup> Enjoy the possibility of being surprised. Ten per cent of all players

### SOCIALISERS

- Vast majority of gamers: 80%. Experience fun through interaction with other gamers. Happy to collaborate to achieve bigger/better things than they ever could on their own. Games such as 'Farmville' (Facebook's largest game), appeal to socialisers

### KILLERS

- Ominous sounding type, nonetheless valid. Similar to achievers, in that they get thrills from points and winning status. Difference is killers want to see other gamers lose. Highly competitive and want to be the best at a game by beating everyone else. Not as common as one might suspect or fear: less than 1%

Building on top of that, in 2006 Nick Yee<sup>156</sup> proposed 10 main categories of gamer motivations to play MMORPGs, which he grouped in three dimensions:

**Achievement**

- Advancement, mechanics, competition

**Social**

- Socialising, relationship, teamwork

**Immersion**

- Discovery, role-playing, customisation, escapism

Building on the same typologies, Linda Schlegel<sup>157</sup> proposes similar gamer types and identities when working with VEOs and radicalisation processes, and presents five core users:

- Socialisers
- Competitors
- Achievers
- Meaning seekers
- Disruptors

**Figure 2. Gamer motivation map - the three clusters**

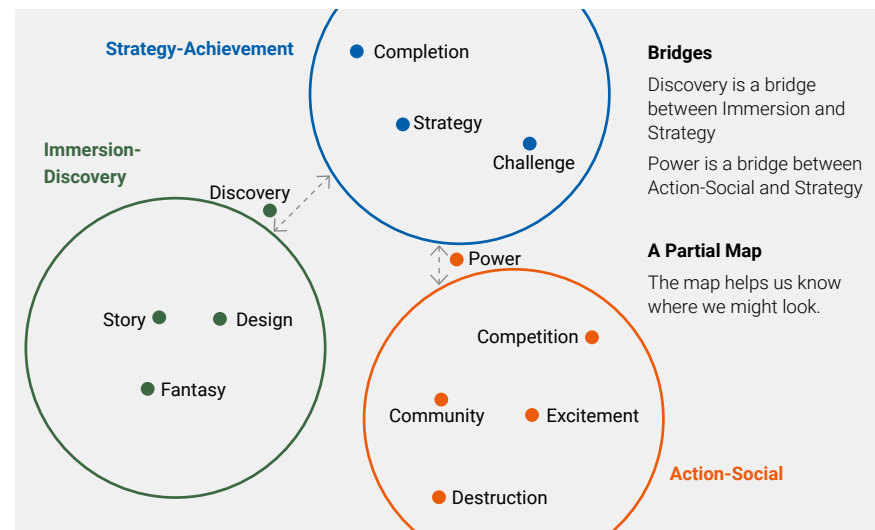


Illustration: Lone Ravnkilde, based on the below source.

Source: 'The Gamer Motivation Profile: Model & Findings' GDC 2016 (Quantic Foundry).

Returning to al-Rawi,<sup>158</sup> in his jihadist gaming work, he presents the somewhat equivalent available psychological motivations to join VEOs, which in return also function as recruitment approaches:

**Revenge seekers**

- An outlet for frustration and perceived grievances

**Status seekers**

- In need of recognition, power and prestige

**Identity seekers**

- A group to join and a cause to live, fight, kill and die for

**Thrill seekers**

- In need of adventure and excitement

Superficial overlaps between the motivations and gamer type typologies mentioned above are apparent. But besides intuitive speculation, that these typologies are or could overlap and be connected somehow, we actually do not know for certain. We simply lack the direct data and research to further investigate and prove whether this is the case or not.

**Figure 3. Typology of gamer types**

<b>Action</b> 'Boom!'	<b>Social</b> 'Let's Play Together'	<b>Mastery</b> 'Let Me Think'	<b>Achievement</b> 'I Want More'	<b>Immersion</b> 'Once Upon a Time'	<b>Creativity</b> 'What if?'
<b>Destruction</b> Guns. Explosives. Chaos. Mayhem.	<b>Competition</b> Duels. Matches. High on Ranking.	<b>Challenge</b> Practice. High Difficulty. Challenges.	<b>Completion</b> Get All. Collectibles. Complete All Missions.	<b>Fantasy</b> Being someone else, somewhere else.	<b>Design</b> Expression. Customization.
<b>Excitement</b> Fast-Paced. Action. Surprises. Thrills.	<b>Community</b> Being on Team. Chatting. Interacting.	<b>Strategy</b> Thinking Ahead. Making Decisions.	<b>Power</b> Powerful. Character. Powerful. Equipment.	<b>Story</b> Elaborate plots. Interesting characters.	<b>Discovery</b> Explore. Tinker. Experiment.

Illustration: Lone Ravnkilde, based on the below source.

Source: 'The Gamer Motivation Profile: Model & Findings' GDC 2016 (Quantic Foundry).

## NOTES

- 1 'Terrorists, video games and us' (Ricks, 2015).
- 2 'RAN - Extremists' use of gaming (adjacent) platforms: Insights regarding primary and secondary prevention measures' (Schlegel, 2021).
- 3 'How ISIS terrorists may have used PlayStation 4 to discuss and plan attacks' (Tassi, 2015).
- 4 'RAN - Extremists' use of gaming (adjacent) platforms: Insights regarding primary and secondary prevention measures' (Schlegel, 2021).
- 5 'ICSR's One Struggle: Examining narrative syncretism between accelerationists and Salafi-jihadists' (Argentino, Amarasingam and Conley, 2022).
- 6 Terrorgram: A prime example of the multifaceted POVET ecosystem. POVET: Post-organisational violent extremism and terror. A way to describe decentralised movement into more fluid, ambiguously defined entities dictated by the groups or ideologies followers engage with, in the digital online ecosystems they all inhabit together. The direction of activity by any one particular group or organisation is ambiguous and loose at best. (ICSR's 'One Struggle': Argentino, Amarasingam and Conley, 2022).
- 7 'E-recruits: how gaming is helping terrorist groups radicalise and recruit a generation of online gamers' (Dino, 2019).
- 8 'Online radicalisation: myth or reality?' (Schlegel, 2018).
- 9 www.kaspersky.com: 'A 'bot' – short for robot – is a software program that performs automated, repetitive, pre-defined tasks. Bots typically imitate or replace human user behaviour. Because they are automated, they operate much faster than human users. They carry out useful functions, such as customer service or indexing search engines, but they can also come in the form of malware – used to gain total control over a computer.'
- 10 'Anders Behring Breivik's use of the internet and social media' (Ravndal, 2013).
- 11 [https://imperialwarfare.fandom.com/wiki/Imperial\\_Warfare\\_Wiki](https://imperialwarfare.fandom.com/wiki/Imperial_Warfare_Wiki)
- 12 'Netcafe-ejer: Derfor anholdt politiet fire mand' (Nielsen, M., Svendsgaard, K., Jørgensen, U. & Kronberg, K. Berlingske. February 16, 2015).
- 13 Hegghammer, T. 2017. 'Introduction: what is Jihadi culture and why should we study it?' In Jihadi Culture: The Art and Social Practices of Militant Islamists. Hegghammer, T. (ed.). Cambridge University Press.
- 14 'Transnational Jihadi Movements' (Sheikh & El-Jaichi, 2022).
- 15 'Simulating terrorism and insurgency: video games in the war of ideas' (Schulzke, 2014).
- 16 'Video games, terrorism, and ISIS's Jihad 3.0' (Al-Rawi, 2018).
- 17 'Holy defence: Hezbollah issues call of duty to video gamers' (Rose, 2018).
- 18 'RAN - Extremists' use of gaming (adjacent) platforms: insights regarding primary and secondary prevention measures' (Schlegel, 2021).
- 19 'Making extremism fun? The potential role of gamification in radicalisation processes' (Schlegel, 2020).
- 20 'Jumanji extremism? How games and gamification could facilitate radicalisation processes' (Schlegel, 2020).
- 21 'Online video games based on Christchurch terrorist attack' (Stevens, 2019).
- 22 www.techopedia.com: 'In gaming, modification (mod) refers to the process of editing or changing the structure, syntax or code of a game. Modification is performed to change the operations of a game in par with the requirements, environment, or end result or experience. Modification is performed to allow a gamer to play a game different from its original released version. It is generally performed by end users or developers, and the modified version is considered as an unofficial version of the game. Typically, when a modification is applied to a game, the user or gamer can have better weapons, more game money, different background textures, stronger character health and any other characteristics specific to a game. Modification can be partial or total, or it may be used only to fix some bugs'.
- 23 'Livestreaming the 'wretched of the Earth': the Christchurch massacre and the 'death-bound subject' (Ibrahim, 2020).
- 24 'ICSR's One Struggle: examining narrative syncretism between accelerationists and Salafi-jihadists' (Argentino, Amarasingam and Conley, 2022).
- 25 Stenersen, A. 2017. 'A history of jihadi cinematography.' In Jihadi Culture: The Art and Social Practices of Militant Islamists. Hegghammer, T. (ed.). Cambridge University Press.
- 26 'Call of duty: jihad - how the video game motif has migrated downstream from Islamic state propaganda videos' (Dauber, Robinson, Baslios and Blair 2019).
- 27 www.mominoun.com: For reference purposes, gaming cases provided by Mominoun Without Borders via email correspondence, from their jihadist archives (Kenza Oulahboub, December 2021). All of the reviewed studies/research on VEO and gaming also mention the same gaming cases in bits and pieces.
- 28 'Video games, terrorism, and ISIS's jihad 3.0' (Al-Rawi, 2018).
- 29 'Playing for hate? Extremism, terrorism, and video games' (Robinson and Whittaker, 2021).
- 30 'Pro-DAESH jihadist propaganda: a study of social media and video games' (El Ghamari, 2017).
- 31 'Understanding the game: bridging research gaps at the nexus of gaming and extremism' (Englund and Bunmathong, 2022).
- 32 'ICSR's One Struggle: examining narrative syncretism between accelerationists and Salafi-jihadists' (Argentino, Amarasingam and Conley, 2022).
- 33 Kraidy, M. and Vilanova, J. 2019. 'Time, space and communication: a preliminary comparison of Islamic State to the Mongol Hordes and the Khmer Rouge.' In The Media World of ISIS. Pennington, R. and Krona, M. (ed.). Indiana University Press.
- 34 'AAA: Triple-A video games are developed and published by mid or large-sized publishers, generally with more significant production and marketing budgets' (such as Sony, Tencent, EA, Ubisoft, Activision Blizzard, Epic Games, Bandai Namco, etc.). Source: EGRN.
- 35 'Playing for hate? Extremism, terrorism and video games' (Robinson and Whittaker, 2021).
- 36 'The 'moral disengagement in violent video games' model' (Hartmann, 2017).
- 37 'Moral disengagement: how people do harm and live with themselves' (Bandura, 2015).
- 38 Cf. Chapter 'GAMINT: a need for gaming intelligence?'
- 39 'Jumanji extremism? How games and gamification could facilitate radicalisation processes' (Schlegel, 2020).

- 40 'Jihadist and far-right extremism: subjectivity, embodiment and imaginaries of violence' (McDonald, 2020).
- 41 'Call of duty: jihad – how the video game motif has migrated downstream from Islamic state propaganda videos' (Dauber, Robinson, Baslios and Blair 2019).
- 42 'Computerspil og afhængighed' (Thorhaug and Brus, 2010).
- 43 'Online radicalisation: moving beyond a simple dichotomy' (Herath and Whittaker, 2021).
- 44 www.techopedia.com: 'In real life (IRL) is a tech slang term used to talk about the real world, in contrast to the world of the internet, or some other virtual or cyber world. In real life (IRL) is also known as the meatspace'.
- 45 'Online radicalisation: myth or reality?' (Schlegel, 2018).
- 46 www.techopedia.com: 'Exchange to exchange (E2E), in the context of IT, is the interaction between websites and the businesses that operate them. Certain kinds of transactions called "exchanges" between websites constitute what IT professionals could call an "exchange-to-exchange" operation...Although E2E can mean "exchange to exchange", it has also been used to represent the term "end-to-end". The end-to-end principle in IT involves the placement of certain software functions in a network's end hosts, rather than in other network segments'.
- 47 Linda Schlegel mentions Weimann as the researcher who coined the term 'virtual packs' in 'Online radicalisation: myth or reality?' (Schlegel, 2018).
- 48 www.techopedia.com: 'RPG video games (role-playing game) originate from tabletop or pen-and-paper RPGs, such as Rolemaster or Dungeons & Dragons (D&D) – a type of game in which the players impersonate their characters by actively describing their actions and thoughts. In video game RPGs, the part of the "game master" (who acts as both the narrator and the referee) is automated, and the computer's artificial intelligence (AI) decides the actions of the various non-player characters (NPCs) and enemies. The development of a central storyline used to be a fundamental part of old-school RPGs, but is not a requirement anymore in more modern games such as massively multiplayer online RPGs (MMORPGs). Most RPGs are set in a fictional world with traditional fantasy or sci-fi elements that are incorporated into the game mechanics. For example, choosing a race such as dwarf or elf can affect the character's in-game choices or modify his characteristics or spell-casting abilities. In classic tabletop RPGs, a set of clear rules defined how characters could interact with the environment. Usually characters had to roll a die to determine whether their attempt at a certain action (such as striking an enemy or scaling a wall) was successful'.
- 49 'Jumanji extremism? How games and gamification could facilitate radicalisation processes' (Schlegel, 2020).
- 50 www.techopedia.com: 'Geocaching is a real world outdoor game that uses Global Positioning System (GPS) technology and mixes elements, including letterboxing, benchmarking and treasure hunting. Players, known as geocachers, search for hidden containers known as geocaches, or caches, which are placed in various locations by organisers or other players'.
- 51 'Gamers who hate: an introduction to ISD's gaming and extremism series' (Davey, 2021).
- 52 'Gaming and extremism: the extreme right on steam' (Vaux, Gallagher and Davey, 2021).
- 53 'Gaming and extremism: the extreme right on discord' (Gallagher, O'Connor, Vaux, Thomas and Davey, 2021).
- 54 'Video games, terrorism, and ISIS's jihad 3.0' (Al-Rawi, 2018).

- 55 'Jumanji extremism? How games and gamification could facilitate radicalisation processes' (Schlegel, 2020).
- 56 Cf. Appendix C.
- 57 'An introduction to gamification: what it is and how to effectively use it' (Fitz-Walter, 2018).
- 58 'The art of game design: a book of lenses' (Schell, 2008).
- 59 'Fundamentals of game design' (Adams, 2013).
- 60 'Heuristics for designing enjoyable user interfaces: lessons from computer games' (Malone, 1982).
- 61 'Analysing fun as a candidate software requirement' (Draper, 1999).
- 62 'Game-based marketing: Inspire customer loyalty through rewards, challenges, and contests' (Zichermann and Linder, 2010).
- 63 'Pawned. Gamification and its discontents' (Deterding, 2010).
- 64 'Gamification: using game design elements in non-gaming context' (Deterding, Sicart, Nacke, O'Hara and Dixon, 2011).
- 65 'From game design elements to gamefulness: defining gamification' (Deterding, Dixon, Khaled and Nacke, 2011).
- 66 Cf. Appendix D.
- 67 'A theory of fun for game design' (Koster, 2004).
- 68 Cf. Chapter 'Genre contingency'.
- 69 In gamification geek 65 proceedings of the AAAI workshop on challenges in game AI (Vol. 4, p. 1). 'MDA: a formal approach to game design and game research' (Hunicke, LeBlanc and Zubek, 2004).
- 70 'Drive: the surprising truth about what motivates us' (Pink, 2009).
- 71 'The general causality orientations scale: self-determination in personality' (Deci and Ryan, 1985).
- 72 'Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being' (Ryan and Deci, 2000).
- 73 'First-person shooter religion: Algorithmic culture and inter-religious encounter' (Wagner, 2012).
- 74 Cf. Chapter 'A culture of Jihadism'.
- 75 'Playing the other: role-playing religion in video games' (de Wildt, 2019).
- 76 'Playing at religion: encoding/decoding religion in video games' (de Wildt, 2020).
- 77 Caliphates are often described as both goals and rewards by Islamists and jihadist ideologues.
- 78 'Call of duty: jihad - how the video game motif has migrated downstream from Islamic state propaganda videos' (Dauber, Robinson, Baslios and Blair, 2019).
- 79 Cf. Introduction.
- 80 'Jihadist and far-right extremism: subjectivity, embodiment and imaginaries of violence' (McDonald, 2020).
- 81 'Understanding the game: bridging research gaps at the nexus of gaming and extremism' (Englund and Bunmathong, 2022).
- 82 'The latest frontier in radicalisation: gaming' (Shurin, 2022).
- 83 Cf. Appendix A.



- 84 'Video games as culture: considering the role and importance of video games in contemporary society' (Muriel and Crawford, 2018).
- 85 Cf. Appendix A.
- 86 'An introduction to gamification: what it is and how to effectively use it' (Fitz-Walter, 2018).
- 87 'The latest frontier in radicalisation: gaming' (Shurin, 2022).
- 88 'Jihadi culture: art and social practices of militant Islamists' (Hegghammer, 2012).
- 89 Hegghammer's anthology investigates: 1. Poetry / 2. Music / 3. Iconography / 4. Cinematography / 5. Dream Interpretation / 6. Martyrology / 7. Social Practices.
- 90 Lahoud, N. 2017. 'A cappella songs (anashid) in jihadi culture.' In *Jihadi Culture: The Art and Social Practices of Militant Islamists*. Hegghammer, T. (ed.). Cambridge University Press.
- 91 Pieslak, J. 2017. 'A musicological perspective on jihadi anashid.' In *Jihadi Culture: The Art and Social Practices of Militant Islamists*. Hegghammer, T. (ed.). Cambridge University Press.
- 92 Ostovar, A. 2017. 'The visual culture of jihad.' In *Jihadi Culture: The Art and Social Practices of Militant Islamists*. Hegghammer, T. (ed.). Cambridge University Press.
- 93 Stenersen, A. 2017. 'A history of jihadi cinematography.' In *Jihadi Culture: The Art and Social Practices of Militant Islamists*. Hegghammer, T. (ed.). Cambridge University Press.
- 94 'RAN - Extremists' use of video gaming – strategies and narratives' (Verdegaal and Wouterse 2020).
- 95 'The media world of ISIS' (Krona and Pennington, 2019).
- 96 'Watching DAESH – rethinking 'online radicalisation'' (Krona, 2021).
- 97 'The media world of ISIS' (Krona and Pennington, 2019).
- 98 IS' and other jihadists' area/regional cartography and mapping system based on historical naming of lands and against current nation-state definitions of the world and its countries.
- 99 Wiki: 'A text storage site or a type of online content-hosting service where users can store plain text'.
- 100 Cf. Chapter 'Gaming and religion'.
- 101 'Watching DAESH – rethinking 'online radicalisation'' (Krona, 2021).
- 102 'Hyper-reality, identity and Mediatization – a sociological reflection on the pro-Islamic state online community' (Krona, 2021).
- 103 'RAN - Extremists' use of gaming (adjacent) platforms: insights regarding primary and secondary prevention measures' (Schlegel, 2021).
- 104 'RAN - Extremists' use of video gaming – strategies and narratives' (Verdegaal and Wouterse, 2020).
- 105 www.techopedia.com: 'Voice over Internet Protocol (VoIP) is a technology used for delivering different kinds of data from a source to a destination using IP (Internet Protocol). The data may be in many forms, including files, voice communication, pictures, fax or multimedia messages. VoIP is most often used for telephone calls, which are almost free of charge'.
- 106 'Video games, extremism and terrorism: a literature survey' (Andrews and Skoczylis, 2021).
- 107 'Gamers who hate: an introduction to ISD's gaming and extremism series' (Davey, 2021).
- 108 'RAN - Extremists' use of gaming (adjacent) platforms: insights regarding primary and secondary prevention measures' (Schlegel, 2021).
- 109 'Gamers who hate: an introduction to ISD's gaming and extremism series' (Davey, 2021).
- 110 <https://trovo.live/>
- 111 <https://odysee.com/>
- 112 Cf. Appendix B.
- 113 Cf. Appendix C.
- 114 'Understanding the game: bridging research gaps at the nexus of gaming and extremism' (Englund and Bunmathong, 2022).
- 115 'RAN - Extremists' use of video gaming – strategies and narratives' (Verdegaal and Wouterse, 2020).
- 116 'Jumanji extremism? How games and gamification could facilitate radicalisation processes' (Schlegel, 2020).
- 117 'Terrorists, video games and us' (Ricks, 2015).
- 118 'RAN - Extremists' use of video gaming – strategies and narratives' (Verdegaal and Wouterse 2020).
- 119 'Gaming and extremism: the extreme right on twitch' (O'Connor, 2021).
- 120 www.videostudiopro.com: Let's Play videos are a type of playthrough video that features a person providing commentary as they play a particular video game. The commentary is often humorous and entertaining, but Let's Play videos can also be critical in nature as pseudo-reviews of games.
- 121 'Playing for hate? Extremism, terrorism, and video games' (Robinson and Whittaker, 2021).
- 122 'The latest frontier in radicalisation: gaming' (Shurin, 2022).
- 123 'Gaming for peace: online gaming to promote peace and sustainable development' (Mochizuki and Khanduja, n.d).
- 124 'Jumanji extremism? How games and gamification could facilitate radicalisation processes' (Schlegel, 2020).
- 125 'Playing for hate? Extremism, terrorism and video games' (Robinson and Whittaker, 2021).
- 126 'Hillary Clinton's history with video games and the rise of political geek cred' (Andrea Peterson, *The Washington Post*, 21 April 2015).
- 127 'The virtual war on terror: counterterrorism narratives in video games' (Schulzke, 2013).
- 128 'How ISIS terrorists may have used PlayStation 4 to discuss and plan attacks' (Tassi, 2015).
- 129 'Gamers who hate: an introduction to ISD's gaming and extremism series' (Davey, 2021).
- 130 'The latest frontier in radicalisation: gaming' (Shurin, 2022).
- 131 'Computerspil og afhængighed' (Thorhauge and Brus, 2010).
- 132 'Awareness brief on online services and violent extremism' (FBI, 2014).
- 133 'Games and terrorism: recent developments' (Sandler and Siqueira, 2009).
- 134 'Overview of the intelligence disciplines' (Whitman and McElreath, 2020).

- 135 www.techopedia.com: 'Computer network exploitation (CNE) is a technique through which computer networks are used to infiltrate target computers' networks to extract and gather intelligence data. It enables the exploitation of the individual computers and computer networks of an external organisation or country in order to collect any sensitive or confidential data, which is typically kept hidden and protected from the general public. CNE is primarily used within military institutes and organisations. It is a type of cybersecurity operation and can be considered equivalent to the jobs/ processes of real-world spies or agents. It consists of techniques and processes that use computers or computer networks to penetrate targeted systems and networks. CNE is part of the computer network operations (CNO) series of techniques for exploiting, attacking and defending against adversarial entities or malicious users'.
- 136 'A brief history of video games' (Ahoy, 2013).
- 137 'On games: or, can art workers think' (Steyerl, 2017).
- 138 'The history of gaming: an evolving community' (Chikhani, 2015).
- 139 www.techopedia.com: 'An arcade game is a game machine typically found in public places like malls, restaurants and amusement arcades, and is usually coin operated. Arcade games are usually video games, pinball machines or electromechanical games. The late 1970s through the 1980s was the golden age of the arcade games. They enjoyed some relative popularity even during the early 1990s. The popularity of this platform slowly declined, however, as console and PC games came into prominence'.
- 140 'An introduction to gamification: what it is and how to effectively use it' (Fitz-Walter, 2018).
- 141 www.techopedia.com: 'Beginner's All-Purpose Symbolic Instruction Code (BASIC) is a high-level and simple programming language that was introduced May 1, 1964. Although it is no longer a major programming language, BASIC is primarily used as a doohtool for teaching fundamental programming principles'.
- 142 www.techopedia.com: 'A Local Area Network (LAN) is composed of interconnected workstations and personal computers which are each capable of accessing and sharing data and devices, such as printers, scanners and data storage devices, anywhere on the LAN. LANs are characterised by higher communication and data transfer rates and the lack of any need for leased telecommunication lines'.
- 143 'The history of gaming: an evolving community' (Chikhani, 2015).
- 144 www.techopedia.com: 'The cloud is a general metaphor that is used to refer to the internet. Initially, the internet was seen as a distributed network and then, with the invention of the World Wide Web, as a tangle of interlinked media. As the internet continued to grow in both size and the range of activities it encompassed, it came to be known as "the cloud".'.
- 145 'The latest frontier in radicalisation: gaming' (Shurin, 2022).
- 146 EGRN's 'State of Play: reviewing the literature on gaming and extremism – an annotated bibliography' (Galen Lamphere-Englund, Sunsanee McDonnell and Luxinaree Bunmathong, October 2021).
- 147 Main language source of the 76 reviewed articles. Linguistic/cultural gaps and challenges: MENAPT and Asia (e.g. Arabic, Turkish, Urdu, Dari, Russian and Chinese).
- 148 Perhaps an outdated dichotomy and way of thinking, as discussed in Chapter 'Digital hazards'.
- 149 www.techopedia.com: 'Search engine optimisation (SEO) refers to methods used to increase traffic to a website by increasing its search engine page rank'.
- 150 Cf. the Michael Krona discussion in Chapter 'Video gaming - Media or culture?', on content/user shifting positions and relationships – when users become or reshuffle content.
- 151 Gaming adjacent platforms to be explored and explained in Chapter 'Right-wing extremism gaming research'.
- 152 EGRN's 'State of Play: reviewing the literature on gaming and extremism – an annotated bibliography' (Galen Lamphere-Englund, Sunsanee McDonnell and Luxinaree Bunmathong, 2021).
- 153 As mentioned/discussed in the Introduction and Chapter 'Jihadist gaming cases'.
- 154 'Bartle's player types for gamification' (Mythily, Herger and Dam, 2021).
- 155 www.techopedia.com: 'An easter egg is a small secret surprise bonus within a game – sometimes it's as simple as a little joke, whereas in other cases it might be a full extra video sequence regarding what has been accomplished. Easter eggs are usually unlocked by using certain techniques to complete in-game tasks, entering specific button combinations or acquiring access to secret game or game file areas'.
- 156 'Motivations of play in MMORPGs: results from a factor analytic approach' (Yee, 2006).
- 157 'Connecting, competing and trolling: 'user types' in digital gamified radicalisation processes' (Schlegel, 2021).
- 158 'Video games, terrorism, and ISIS's jihad 3.0' (Al-Rawi, 2018).

# REFERENCES

Adams, E. (2013). **Fundamentals of Game Design**. New Riders.

Ahoy. (2013). A Brief History of Video Games. Uploaded September 16, 2013. [Retrieved 15/08/2022 from <https://www.youtube.com/watch?v=GoyGlyrYb9c>].

Al-Rawi, A. (2018). Video games, terrorism, and ISIS's Jihad 3.0. **Terrorism and Political Violence**, 30(4), 740-760.

Andrews, S. and Skoczylis, J. (2021). Video games, extremism and terrorism: a literature survey. **GNET Insights**, November 16, 2021. [Retrieved 15/08/2022 from <https://gnet-research.org/2021/11/16/video-games-extremism-and-terrorism-a-literature-survey/>].

Argentino, M., Amarasingam, A. and Conley, E. (2022). **'One Struggle': Examining Narrative Syncretism between Accelerationists and Salafi-Jihadists**. ICSR King's College London.

Atwan, A. (2015). **Islamic State: The Digital Caliphate**. Saqi.

Awan, I. (2010). Cyber-extremism: ISIS and the power of social media. **Society**, 54, 138-149.

Bandura, A. (2015). Moral Disengagement: **How People Do Harm and Live with Themselves**. Worth Publishers.

Barrie, A. (2015). Science fiction writers help government prepare for attacks of the future. **Fox News**, May 18, 2015. [Retrieved 15/08/2022 from <https://www.foxnews.com/story/science-fiction-writers-help-government-prepare-for-attacks-of-the-future>].

Behr, I., Reding, A., Edward, C. and Gribbon, L. (2013). **Radicalisation in the Digital Era: The Use of the Internet in 15 Cases of Terrorism and Extremism**. RAND Corporation.

Besley, T. and Peters, M. (2020). Terrorism, trauma, tolerance: bearing witness to white supremacist attack on Muslims in Christchurch, New Zealand. **Educational Philosophy and Theory**, 52(2), 109-119.

Caniglia, M., Winkler, L. and Métais, S. (2020). The Rise of The Right-Wing Violent Extremism Threat in Germany and its Transnational Character. ESISC.

Chikhani, R. (2015). The history of gaming: an evolving community. **TechCrunch**, October 31, 2015. [Retrieved 15/08/2022 from <https://techcrunch.com/2015/10/31/the-history-of-gaming-an-evolving-community/>].

Dauber, C., Robinson, M., Baslious, J. and Blair, A. (2019). Call of duty: Jihad – how the video game motif has migrated downstream from Islamic state propaganda videos' terrorism research initiative. **Perspectives on Terrorism**, 13(3), 17-31.

Davey, J. ISD's **Gaming and Extremism Series**, August 12, 2021. Gamers who hate: an introduction to ISD's gaming and extremism series.

De Wildt, L. and Aupers, S. (2019). Playing the other: role playing religion in video games. **European Journal of Cultural Studies**, 22(5-6), 867-884.

De Wildt, L. and Aupers, S. (2020). Playing at religion: encoding/decoding religion in video games. Thesis for Ph.D. KU Leuven.

Deterding, S. (2010). **Pawned. Gamification and its discontents** [Powerpoint]. Presented at Playful, London. [Retrieved 15/08/2022 from <https://www.slideshare.net/dings/pawned-gamification-and-its-discontents>].

Deterding, S., Dixon, D., Khaled, R. and Nacke, L. (2011). From game design elements to gamefulness: defining gamification, MindTrek '11: Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments: 9–15. (Tampere, Finland, September 28 - 30, 2011)

Deterding, S., Sicart, M., Nacke, L., O'Hara, K. and Dixon, D. (2011). Gamification: using game design elements in non-gaming context, Conference: Proceedings of the International Conference on Human Factors in Computing Systems, CHI 2011, Extended Abstracts Volume, Vancouver, BC, Canada, May 7-12, 2011.

Dino, D. (2019). E-recruits: how gaming is helping terrorist groups radicalise and recruit a generation of online gamers. **Concentric**, March 17, 2019. [Retrieved 15/08/2022 from <https://www.concentric.io/blog/e-recruits-how-gaming-is-helping-terrorist-groups-radicalize-and-recruit-a-generation-of-online-gamers>].

Draper, S. (1999). Analysing fun as a candidate software requirement. **Personal Technologies**, 3(3), 117-122.

El-Ghamari, M. (2017). Pro-DAESH Jihadist propaganda. A study of social media and video games. **Security and Defence Quarterly**, 14(1), 69-90.

Englund, J. and Bunmathong, L. (2022). Understanding the game: bridging research gaps at the nexus of gaming and extremism. **GNET Insights Gaming**, March 9, 2022. [Retrieved 15/08/2022 from <https://gnet-research.org/2022/03/09/understanding-the-game-bridging-research-gaps-at-the-nexus-of-gaming-and-extremism/>].

Erez, E., Weimann, G. and Weisburd, A. (2013). **Jihad, Crime and the Internet: Content Analysis of Jihadist Forum Discussions**. DIANE Publishing Company.

Fitz-Walter, Z. (2018). **An Introduction to Gamification: What it is and how to effectively use it**. [www.gamificationgeek.com](http://www.gamificationgeek.com)

Frenett, R. and Joost, S. (2021). Online gaming platforms. **VOX-Pol**, September 8, 2021. [Retrieved 15/08/2022 from <https://www.voxpol.eu/online-gaming-platforms/>].

Fuchs, M., Fizek, S. and Ruffino, P. (Eds.). (2014). **Rethinking Gamification**. Meson Press.

Gallagher, A., O'Connor, C., Vaux, P., Thomas, E. and Davey, J. ISD's **Gaming and Extremism Series**, August 19, 2021. The extreme right on Discord.

Gürlesin, Ö., Akdag, M., Alasag, A. and Avast, I. (2020). Playful religion: an innovative approach to prevent radicalisation of Muslim youth in Europe. **Religions**, 67.

Hartmann, T. (2017). The 'moral disengagement in violent video games' model. **Game Studies: The International Journal of Computer Game Research**, 17(2).

Hartmann, T. and Vorderer, P. (2010). It's okay to shoot a character: moral disengagement in violent video games. **Journal of Communication**, 60(1), 94-119.

Hegghammer, T. (2010/2011). The rise of Muslim foreign fighters: Islam and the globalisation of Jihad. **International Security**, 35(3), 53-94.

Hegghammer, T. (Ed.). (2017). **Jihadi Culture: The Art and Social Practices of Militant Islamists**. Cambridge University Press.

Herath, C. and Whittaker, J. (2021). Online radicalisation: moving beyond a simple dichotomy. **GNET Insights**, December 20, 2021. [Retrieved 15/08/2022 from <https://gnet-research.org/2021/12/20/online-radicalisation-moving-beyond-a-simple-dichotomy/>].

Ibrahim, Y. (2020). Livestreaming the 'wretched of the earth': the Christchurch massacre and the 'death-bound subject'. **Ethnicities**, 20(5), 803-822.

International Association of Chiefs of Police. (2014). **Online Services and Violent Extremism**. Awareness Brief. Washington, DC: Office of Community Oriented Policing Services.

Katz, R. (2019). A growing frontier for terrorist groups: unsuspecting chat apps. **WIRED Opinion**, Security, January 9, 2019. [Retrieved 15/08/2022 from <https://www.wired.com/story/terrorist-groups-prey-on-unsuspecting-chat-apps/>].

Kierkegaard, L., Pommerencke, L., Flensburg, S., Bonnesen, C., Madsen, K., Pant, S. and Thorhauge, A. (2020). Digital mediebrugs betydning for sociale relationer, fællesskaber og stress blandt børn og unge: En litteraturgenngang, Statens Institut for Folkesundhed, SDU.

Kingdon, A. (2019). Framing Far Cry 5: the gamification of white separatist propaganda. **CARR Insights**, December 16, 2019. [Retrieved 15/08/2022 from <https://www.radicalrightanalysis.com/2019/12/16/framing-far-cry-5-the-gamification-of-white-separatist-propaganda/>].

Koster, R. (2004). **A Theory of Fun for Game Design**. O'Reilly Media.

Krona, M (2020). Vicarious trauma from online extremism research. **GNET Insights**, March 27, 2020. [Retrieved 15/08/2022 from <https://gnet-research.org/2020/03/27/vicarious-trauma-from-online-extremism-research-a-call-to-action/>].

Krona, M. (2021). Hyper-reality, identity and mediatisation - a sociological reflection on the pro-Islamic state online community. **GNET Insights**, March 25, 2021. [Retrieved 15/08/2022 from <https://gnet-research.org/2021/03/25/hyper-reality-identity-and-mediatisation-a-sociological-reflection-on-the-pro-islamic-state-online-community/>].

Krona, M. (2021). Watching DAESH - rethinking 'online' radicalisation. SCENOR, January 31, 2021. [Retrieved 15/08/2022 from <https://www.scenor.at/post/watching-daesh>].

Kumar, J., Herger, M. and Dam, R. (2021). Bartle's Player Types for Gamification, Interaction Design Foundation.

Lakhani, S. (2021). Is it just a game? Exploring the intersection between (violent) extremism and online video gaming. **VOX-Pol**, September 29, 2021. [Retrieved 15/08/2022 from <https://www.voxpol.eu/is-it-just-a-game/>].

Lamphere-Englund, G., McDonnell, S. and Bunmathong, L. (2021). **State of Play: Reviewing the Literature on Gaming and Extremism. An Annotated Bibliography. A Product of the Extremism and Gaming Research Network**. Love Frankie.

Lengkeek, Y. (2021). Why the radical right exploits games as tools for radicalisation. **CARR Insights**, August 13, 2021. [Retrieved 15/08/2022 from <https://www.radicalrightanalysis.com/2021/08/13/why-the-radical-right-exploits-games-as-tools-for-radicalization/>].

Malone, T. (1982). Heuristics for designing enjoyable user interfaces: lessons from computer games, Proceedings of the 1982 Conference on Human Factors in Computing Systems: pp. 63-68. (Gaithersburg, Maryland, United States, March 15 - 17, 1982)

Matusitz, J. (2020). **Communication in Global Jihad**. Routledge.

McDonald, K. (2020). **Jihadist and Far-Right Extremism: Subjectivity, Embodiment and Imaginaries of Violence**. Nomos.

Mirrlees, T. and Ibaid, T. (2021). The virtual killing of Muslims: digital war games, Islamophobia, and the global war on terror. **Islamophobia Studies Journal**, 6(1), 33-51.

Mochizuki, Y. and Khanduja, G. (n.d). Gaming for Peace: Online Gaming to Promote Peace and Sustainable Development. United Nations Educational, Scientific and Cultural Organization and Mahatma Gandhi Institute of Education for Peace and Sustainable Development, New Delhi.

Muriel, D. and Crawford, G. (2018). **Video Games as Culture: Considering the Role and Importance of Video Games in Contemporary Society**. Routledge.

Nielsen, M., Svendsgaard, K., Jørgensen, U. and Kronberg, K. (2015). Netcafe-ejer: Derfor anholdt politiet fire mand. **Berlingske**, February 16, 2015. [Retrieved 15/08/2022 from <https://www.berlingske.dk/samfund/netcafe-ejer-derfor-anholdt-politiet-fire-mand>].

O'Connor, C. ISD's **Gaming and Extremism Series**, September 2, 2021. The extremer right on Twitch.

Pennington, R. and Krona, M. (Eds.). (2019). **The Media World of ISIS**. Indiana University Press.

Peterson, A. (2015). Hillary Clinton's history with video games and the rise of political geek cred. **The Washington Post**. April 21, 2015. [Retrieved 15/08/2022 from <https://www.washingtonpost.com/news/the-switch/wp/2015/04/21/hillary-clintons-history-with-video-games-and-the-rise-of-political-geek-cred/>].

Pink, D. (2009). **Drive: The Surprising Truth About What Motivates Us**. Riverhead Books.

Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T. and Tacchi, J. (2015). **Digital Ethnography: Principles and Practice**. SAGE Publications.

Prucha, N. (2010). Online Jihad versus gaming industry. A comparative look at two cultural sub-groups online ventures. **SIAK-Journal - Zeitschrift für Polizeiwissenschaft und polizeiliche Praxis** (1), 70-80.

Ramsay, G. (2013). **Jihadi Culture on the World Wide Web**. Bloomsbury Publishing USA.

Ravndal, J. (2013). Anders Behring Breivik's use of the internet and social media. **Journal Exit-Deutschland. Zeitschrift für Deradikalisierung und demokratische Kultur**, 2, 172-185.

Ricks, T. (2015). Terrorists, video games and us. **Foreign Policy**, November 16, 2015. [Retrieved 15/08/2022 from <https://foreignpolicy.com/2015/11/16/terrorists-video-games-and-us/>].

Robinson, N. and Whittaker, J. (2020). Playing for hate? Extremism, terrorism and videogames. **Studies in Conflict and Terrorism**, 1-36.

Rose, S. (2018). Holy defence: Hezbollah issues call of duty to video gamers. **Middle East Eye**, March 1, 2018. [Retrieved 15/08/2022 from <https://www.middleeasteye.net/news/holy-defence-hezbollah-issues-call-duty-video-gamers>].

Ryan, R. and Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. **American Psychologist**, 55(1), 68–78.

Ryan, R. and Deci, E. (2004). The general causality orientations scale: self-determination in personality. **Journal of Research in Personality**, 19(2), 109-134.

Sandler, T. and Siqueira, K. (2008). Games and terrorism: recent developments, **Simulation and Gaming 40th Anniversary Symposium invited article**. May 7, 2008.

Schell, J. (2008). **The Art of Game Design: A Book of Lenses**. CRC Press.

Schlegel, L. (2018). **Online-radicalisation: Myth or reality?** Konrad-Adenauer-Stiftung.

Schlegel, L. (2020). Jumanji extremism? How games and gamification could facilitate radicalisation processes. **Journal for Deradicalization**, 23.

Schlegel, L. (2020). Making extremism fun? The potential role of gamification in radicalisation processes. **Modus-zad blog**, March 19, 2020. [Retrieved 15/08/2022 from <https://modus-zad.de/en/blog-en/making-extremism-fun-the-potential-role-of-gamification-in-radicalization-processes/>].

Schlegel, L. (2021). 'Connecting, competing and trolling: 'user types' in digital gamified radicalisation processes. **Perspectives on Terrorism**, 15(4), 54-64.

Schlegel, L. (2021). Extremists' use of gaming (adjacent) platforms: insights regarding primary and secondary prevention measures, Publications Office of the European Union.

Schlegel, L. (2021). Let's play prevention: can P/CVE turn the tables on extremists' use of gamification? **PRIF Blog**, March 29, 2021. [Retrieved 15/08/2022 from <https://blog.prif.org/2021/03/29/lets-play-prevention-can-p-cve-turn-the-tables-on-extremists-use-of-gamification/>].

Schreier, J. (2015). Reporting error leads to speculation that terrorists used PS4s to plan Paris attacks. **Kotaku**, November 16, 2015. [Retrieved 15/08/2022 from <https://kotaku.com/reporting-error-leads-to-speculation-that-terrorists-us-1742791584>].

Schulzke, M. (2013). The virtual war on terror: counterterrorism narratives in video games. **Cambridge Review of International Affairs**, 27(4), 627-643.

Schulzke, M. (2014). Simulating terrorism and insurgency: video games in the war of ideas. **Cambridge Review of International Affairs**, 27(4), 627-643.

Sheikh, M. and El-Jaichi, S. (2022). **Transnational Jihadi Movements**. Oxford University Press.

Shurin, J. (2022). The latest frontier in radicalisation: gaming. **CARR Insights**, January 26, 2022. [Retrieved 15/08/2022 from <https://www.radicalrightanalysis.com/2022/01/26/the-latest-frontier-in-radicalization-gaming/>].

Stalinsky, S. and Sosnow, R. (2019). **From Al-Qaeda to the Islamic State (ISIS), Jihadi Groups Engage in Cyber Jihad: From 1980s Promotion of Use of 'Electronic Technologies' to Today's Embrace of Social Media to Attract a New Jihadi Generation**. MEMRI Books.

Stevens, K. (2019). Online video games based on Christchurch terrorist attack. **Daily Mail Australia**, March 22, 2019. [Retrieved 15/08/2022 from <https://www.dailymail.co.uk/news/article-6837475/Online-gamers-create-person-shooter-video-games-based-Christchurch-terrorist-attack.html>].

Steyerl, H. (2017). On games: or, can art workers think? **New Left Review**, 103.

Tassi, P. (2015). How ISIS terrorists may have used PlayStation 4 to discuss and plan attacks. **Forbes**, November 14, 2015. [Retrieved 15/08/2022 from <https://www.forbes.com/sites/insertcoin/2015/11/14/why-the-paris-isis-terrorists-used-ps4-to-plan-attacks/?sh=69fd392c7055>].

Thomas, E. ISD's **Gaming and Extremism Series**, August 26, 2021. The extreme right on Dlive.

Thorhauge, A. and Brus, A. (2011). Computerspil og afhængighed. **Pædagogisk Psykologisk Tidsskrift**, 47(1), 3-25.

UNODC. (2012). **The Use of the Internet for Terrorist Purposes**. United Nations Office on Drugs and Crimes.

Vaux, P., Gallagher, A. and Davey, J. ISD's **Gaming and Extremism Series**, August 12, 2021. The extreme right on Steam.

Verdegaal, M. and Wouterse, L. (2020). Extremists' use of video gaming – strategies and narratives. RAN C&N meeting conclusions paper. Radicalisation Awareness Network (RAN).

Wagner, R. (2012). First-person shooter religion: algorithmic culture and inter-religious encounter. **CrossCurrents**, 62(2), 181-203.

Whitman, T. and McElreath, D. (2020). **Overview of the Intelligence Disciplines**. University of Mississippi USA.

Yee, N. (2006). Motivations of play in MMORPGs: results from a factor analytic approach, [www.nickyee.com](http://www.nickyee.com).

Zichermann, G. and Linder, J. (2010). **Game-based Marketing: Inspire Customer Loyalty Through Rewards, Challenges, and Contests**. John Wiley and Sons.

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