Connecting, Competing, and Trolling: "User Types" in Digital Gamified Radicalization Processes

by Linda Schlegel

Abstract

The concept of gamification is increasingly applied as a framework to understand extremist online subcultures and communications. Although a number of studies have been conducted, the theoretical and empirical basis to understand the role of gamification in extremist contexts remains weak. This article seeks to contribute to the development of a gamification of radicalization theory by exploring how Marczewski's HEXAD, a user typology for gamified applications, may facilitate our understanding of individual variations in engagement with gamified extremist content. Five user types, named after their core motivational drivers for engagement, are discussed: Socializers, Competitors, Achievers, Meaning Seekers, and Disruptors. This typology may support future studies by providing a preliminary understanding of how different game elements may appeal to different users and increase their engagement with and susceptibility to extremist content in cyberspace.

Keywords: Radicalization, gamification, user types, extremism

Introduction

The 'gamification of terror' made headlines for the first time shortly after the livestreamed right-wing extremist attack in Christchurch, New Zealand (15 March 2019) and has influenced the framing of subsequent attacks, including in El Paso and Halle.[1] While video games have been part of the extremists' 'toolbox' for decades [2], the concept of gamification—understood as the application of game elements outside of (video) games—has only been added to the research discourse on extremism very recently but has gained some degree of acceptance for the analysis of digital extremist communities.[3] Gamification, it is argued, may facilitate digital radicalization processes as it can make extremist content more appealing, 'cool', or 'fun' for users since it utilizes psychological mechanisms such as rewarding desired behavior through positive reinforcement. This may motivate users to continue their engagement with gamified extremist propaganda.

However, both the theoretical and empirical basis for a theory of the gamification of radicalization is meager and largely anecdotal. While initial efforts have been made to understand how the psychological appeal of gamification may influence digitally mediated radicalization processes [4], much is still unexplored and therefore unknown. This article seeks to make a theoretical contribution to the academic discourse by exploring the concept of user types in the context of digital radicalization. If people have different motivational drives to engage in gamified applications generally, an exploration of user types may contribute to a deeper understanding of what draws individuals to gamified extremist content in the online sphere, motivates them to stay engaged, and thereby potentially increases the risk of becoming radicalized. This article explores whether Marczewski's HEXAD could facilitate our understanding of how extremists' gamified applications appeal to various types of users and how digital trajectories toward radicalization may be influenced by particular game elements. Although radicalization research has already come forward with different radicalization typologies, a framework specifically designed for gamified contexts could complement accounts of a variety of pathways to radicalization in the digital world while also recognizing the unique characteristics of gamified environments. Due to the extremely limited empirical evidence pertaining to the gamification of radicalization currently available, this article ought to be understood as an exploratory, theoretical, and deductively derived contribution to the discourse. The framework presented will have to be tested and possibly refined by future empirical research.

Gamification of Extremism: What We Know So Far

The gamification of extremism is part of a larger discussion on digitally mediated radicalization processes or online radicalization.[5] A kaleidoscope of factors [6] has been suggested as potentially facilitating both online and offline radicalization processes, including, most prominently, loss of significance and identity-based factors leading individuals to seek groups high in entitativity and with clear values and norms.[7] It is widely acknowledged that extremists of various *couleurs* are often early adopters of new technological tools and are increasingly communicating and disseminating propaganda material via the Internet.[8] Although the establishment of a clear and direct link between extremist attitudes and extremist behavior remains elusive [9], research findings so far suggest that both cognitively and behaviorally radicalized individuals consume extremist content distributed online and that exposure to such material may potentially increase susceptibility to radicalization processes.[10] In order to draw individuals toward propagandistic online content, it is often sophisticatedly produced and features appealing themes and visual aesthetics from pop culture, including from movies and video games.[11] Gamification is one of the tools used in recent years to make digital, extremist content more attractive to potential audiences.

A variety of topics pertaining to extremism and gaming-related phenomena have been discussed, including the use of gaming language and memes [12], use of video-game aesthetics in propaganda [13], the presence of extremist actors on gaming platforms such as Discord and Steam [14], the use of original video games [15], the modification of existing games [16], livestreaming attacks akin to 'let's play' videos of first-person shooter games [17], and gamification, that is, the use of game elements such as points, leaderboards, or quests.[18] The focus here is placed on the latter. Gamification can be defined as "the use of game design elements in non-game contexts" [19]; specifically, the transfer of rewards such as points or badges, leaderboards and rankings, quests, and missions embedded in a storyline giving 'epic meaning' [20] to non-game contexts. Non-game contexts are all contexts that are not normally associated with play, i.e., everything that is not specifically denoted as a game. Gamification as understood here does therefore not refer directly to video games or gaming platforms.

Gamification has received some attention in the study of digital radicalization processes. In a previous study, the present author distinguished between top-down gamification—"the strategic use of gamification by extremist organizations" [21]—and bottom-up gamification, which emerges organically in digital communities or among groups of online friends. Both processes have been observed on social media platforms, on gaming (-adjacent) platforms, but also in private chats. There are also initial theoretical accounts of the potential mechanisms by which gamification may influence radicalization processes online.[22] For instance, game elements make engaging with digital content more 'fun', provide positive reinforcement, opportunities for collaboration or competition with others, as well as other enjoyable elements. An enjoyable user experience may lead to a higher likelihood of prolonged engagement, which, in turn, may lead to a normalization of the extremist content, and could, ultimately, increase susceptibility to radicalization.

However, while many people may enjoy elements of play, not everyone will enjoy the same game features to the same extent. Engagement with and effects of gamified content may partially depend on individual preferences. What is missing from the theoretical underpinnings of the gamification of radicalization so far is a framework that accounts for individual differences and acknowledges that different user types enjoy and are motivated by different game components.

User Types

Player types are a well-known concept in the study of video gaming.[23] Similarly, research on gamification uncovered that different user types[1] are motivated by, and react differently, to distinct gamified features.[24] Because typologies devised for video games are not applicable to non-game contexts, Marczewski developed the HEXAD [25], a framework explicitly created and widely used for the analysis of user types in gamification settings.[26] He distinguishes six user types: *Socializers*, motivated by relatedness; *Free Spirits*, motivated by self-

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[1] In gamification research, the term 'player' is replaced by 'user', because one does not actually 'play' in a gamified application.

expression and creativity; *Achievers*, motivated by a chance to gain new skills and knowledge; *Philanthropists*, motivated by a feeling of purpose and meaning derived from helping others in the gamified application; *Disruptors,* motivated by upsetting others; and *Players*, motivated by extrinsic rewards such as points. These are ideal types which are not necessarily mutually exclusive. Each user will be motivated by more than one driver; types merely indicate the primary motivation and are not necessarily indicative of every single behavior exhibited by users.

For instance, a Socializer can collect points and feel good about leading the scoreboard while his/her primary motivation for engagement is being connected with others online. User types may also evolve over time, e.g., an individual could join a gamified application to collect points and 'win' (Player) but then be motivated to log on regularly as he/she comes to enjoy communicating with other users (Socializer), as has been observed in other gaming contexts too.[27] In other words, game elements that drive initial engagement are not necessarily the game elements that make users stay. It is, however, the main motivational driver at a certain point in time that characterizes the user as belonging to one or the other type. With this framework, one may analyze which game elements are appealing to which users and which users are most likely to engage in the gamified application in a certain way. This helps designers to develop gamified applications that a variety of users will perceive as appealing. Good gamified applications will engage multiple user types, whereas applications missing some elements will be unable to draw the attention of certain users.

Building on the rudimentary distinction between socially driven users and users motivated by competition, which this author made in a previous article [28], use of the HEXAD framework is made to discuss a user typology that could support future empirical research on the gamification of radicalization. Not discussed here is Marczewski's Free Spirit user type, who is mainly driven by the wish to be creative as, to the author's knowledge, creativity has not been discussed in the literature on radicalization as a driving factor, whereas the other user types relate to known drivers of radicalization. Should future studies find a connection between the wish to be creative and radicalization processes, the Free Spirit type could be added again to the proposed framework. The present author has also re-labeled Marczewski's Player type as a Competitor and his Philanthropist as a Meaning Seeker, as will be explained below.

Figure 1 provides an overview of the user types, their motivations, and the game elements they are likely to find most appealing. In the following, each user type is discussed.

Figure 1: User Type Driver of Radicalization

User Type	Driver of Radicalization	Motivational Driver	Game Elements
Socializer	Identity seeker, belonging	relatedness, connection	guilds/teams, networks/forums, collaboration
Competitor	Status seeker, significance relative to in-group	extrinsic rewards, in-group comparison	competition, points, leaderboards, achievements/badges
Achiever	Need for certainty about the world	exploration, mastery, new skills, new knowledge, personal progress	quests, certificates, knowledge sharing, progress bars
Meaning Seeker	Need for meaning/purpose	purpose, meaning	epic story, sharing items/knowledge
Disruptor	Thrill seeker, adventure, confrontation	challenging others/the system, making themselves heard	rewards for disruption, tools to make themselves heard

Socializer

Socializers ask, "How can I connect to others?" and "How can I collaborate?" and enjoy cooperative tasks as well as a group to belong to and communicate with.[29] They are driven by the wish for social connection and the feeling of being part of a community. Social relatedness, the promise of belonging, and a search for identity are prominent factors discussed in relation to radicalization processes, especially in the 'homegrown' context. [30] In his seminal study on foreign fighters joining Al-Qaeda (2010), Venhaus found in his data set that identity seeking is the most common driver for young people to join the group.[31] A number of subsequent studies have shown that (lack of) identity and the need to belong are often key factors in radicalization.[32] Additionally, it has been shown that the higher a group's perceived entitativity, the more appealing it is for those seeking a highly secure and homogenous social identity.[33]

Gamified elements that facilitate sharing of experiences and building a community with others, e.g., by receiving points for commenting on other group members' posts, chat functions, collaborative 'quests', or mechanisms of social approval such as 'like' or 'thank you' buttons can increase the appeal of the gamified application for socially driven users seeking belonging. Rankings may also include special acknowledgment of those willing to help others or those with the most comments, e.g., "community hero". If those rankings are publicly visible, Socializers may perceive them as acknowledgment of their contribution to the collective and be motivated to keep engagement high. High engagement may then transfer into a normalization of the extremist content they are engaging with and a potential susceptibility to radicalization. Socializers may also enjoy the social cues gamification provides. By knowing who collected which amount of points, who fulfilled which quests, etc., Socializers may be able to deduce current group norms of engagement and adjust their behavior accordingly. If social norms move toward more extreme attitudes and behaviors, Socializers may be swayed to follow the norm, increasing their potential to become radicalized.[34]

In large groups, Socializers may enjoy becoming part of guilds or other forms of smaller teams they can connect to more easily than a collective of thousands of users. Socializers may also enjoy the possibility of connecting physically to members of their virtual in-group. The app Patriot Peer, for instance, was supposed to include a 'Patriot Radar', which would have enabled Socializers to directly connect to like-minded individuals near them.[35] This may also occur in a bottom-up manner. Kevin McDonald, for instance, reports that a group of friends from Rochdale (UK) radicalized together in part due to their continuous gamified communication on WhatsApp. They constructed an alternate reality game by imagining themselves as a guild raiding a sorcerer's dungeon to steal black magic objects, while in reality breaking into the house of a Shia Muslim to steal a book. [36] Socializers may be prone to such small-group influence as they seek belonging and identification with a collective and may be swayed by their guild/team/peer-group toward more radical thinking and action.

Competitor

Marczewski's Player type is motivated by extrinsic rewards and asks, "What's in it for me?" and "How do I win?"[37] Building on previous work, this author replaced Marczewski's Player, who is driven by collecting extrinsic rewards with a Competitor type, for whom extrinsic rewards signify 'winning' against others, i.e., gaining social status and a position of significance relative to the in-group that leading a competition can entail. As argued previously [38], it is the social challenge that drives status seekers to engage with gamified propaganda and motivates the desire to lead the scoreboard. Competitors enjoy points, scoreboards, and visible achievements such as badges. Gamified elements provide Competitors with visible measures of how well they are doing compared to others and how many points they need in order to reach the next level or a higher place on the scoreboard—i.e., gamification provides clear indicators of success.

Kruglanski and colleagues [39] traced radicalization in its various forms to a single factor: lack of significance. Those on a Quest for Significance (QfS) want to 'be someone', to matter, and to feel that they can achieve something in their lives. Both social exclusion and loss or lack of social status may facilitate a QfS and the corresponding longing to find a way to enhance one's status [40], which can sometimes lead to a higher susceptibility to radicalization into groups promising such a status elevation. Competitive game elements

that signify social status elevation may therefore be appealing to those on a QfS. Gamification may help Competitors feel significant by providing them with the opportunity to establish themselves visibly at the higher end of the in-group social ladder, i.e., achieve the social status they seek.[41] Points, badges, and one's place on the leaderboard carry prestige and are visible and quantifiable indicators of status within the group. They can be influenced directly by the users' actions, i.e., an individual can directly influence their social status by putting in greater effort to collect points or badges, fulfill quests or other tasks, and move up in the social hierarchy. This increases perceived agency and the feeling that they can (re-)gain significance by adjusting their behavior accordingly. Competitors may therefore be motivated to engage more often and more intensely than other users with the extremist community and its content in order to gain points and reap the visible virtual rewards of their effort when placing high on the scoreboard. This may facilitate radicalization processes and the willingness to take more far-reaching actions in order to collect more points.

When acting outside of an organized group, Competitors may develop their own measures for success that can signify higher social status. The Halle attacker [42], for instance, detailed various "achievements" in his manifesto that he wanted to carry out to feel that his attack was a success, gain recognition within the online community he felt part of, and be placed on the virtual scoreboards on *4Chan* or other discussion boards. The achievements included various forms of killing one or multiple Jews, people of color, communists, or a "ZOG-bot"[2], i.e., a police officer [43], as well as burning down a mosque—an achievement he named "crusty kebab". [44] All achievements were named in accordance with the memefication, dark irony, and 'lulz' found in Alt-Right *chan* culture [45], indicating that this was the in-group he sought to impress with his achievements and elevate his social status relative to others who would understand such codes.

Achiever

Achievers ask, "How can I learn new skills?"[46] They are interested in their own personal progress, gaining new knowledge or skills, and feeling a sense of mastery. Whereas Competitors seek to progress within the gamified application and lead the scoreboard, Achievers want to develop mastery outside of the immediate digital environment: they want to feel they understand how the world works. In both right-wing and jihadist radicalization processes, but also in the context of adherence to conspiracy theories, the prospect of belonging to a select elite, the chosen people, or the only ones who know the 'truth' is an important pull factor toward such groups.[47] Finally overcoming the uncertainty of existence, the perception that one is one of the chosen few who knows who is pulling the strings and what is happening behind the scenes can be a motivational driver for engagement with nonmainstream content.[48]

Achievers may be especially motivated by the prospect of 'solving the puzzle' and tracking their personal progress toward reaching the 'true' understanding of events unfolding in society. Gamification can support such motivational drivers. In the context of QAnon, for instance, supporters were presented with hints and bread crumbs, but also encouraged to 'do their own research' and put the puzzle pieces together as they saw fit.[49] This empowered users of the Achiever type to construct their own reality by "connecting the dots" and gain a sense of mastery after putting the pieces together and finally understanding what is going on in the world. They are on a 'quest' for "the truth". In addition, QAnon encouraged supporters to add onto each other's theories, discuss them, and thereby broaden their understanding of the connections between various aspects. [50] This too is appealing to Achievers because they can share their own knowledge, collaborate with others on their quest for the truth, and learn from others to make progress. Individuals motivated by truth seeking, uncertainty reduction, and knowledge expansion may therefore be drawn to gamified extremist content as this provides them with the opportunity to satisfy their 'quest for truth' and personal agency.

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[2] ZOG (Zionist Occupation Government), referring to a conspiracy theory popular in right-wing extremist subcultures postulating that a global Jewish elite runs the world.

Meaning Seeker

Philanthropists ask, "How can I improve the experience of others?" and "How can I help?"[51] In the framework of this article, Marczewski's Philanthropist was substituted by Meaning Seeker. This is not to suggest that radicalization is never motivated by a desire to help others. However, in Markewski's framework, the Philanthropist is motivated to help other users within the gamified application, e.g., by sharing knowledge or items he/she collected.[52] In extremist communities, however, seeking purpose and meaning is likely to extend far beyond the context of the gamified application. The Meaning Seeker, like the Philanthropist, wants to feel part of something big and important, but rather than deriving meaning from the immediate context of the 'game', the Meaning Seeker derives it from the larger narrative that gives meaning to the gamified context online. Seeking meaning and purpose has been suggested as potentially driving radicalization processes.[53] For instance, Dawson and Amarasingam [54] found lack of purpose and meaning to be one of the major motivational drivers for certain foreign fighters. Humanitarian concerns were reported as motivational drivers by foreign fighters joining ISIS, suggesting the wish to help and experience a sense of purpose.[55] Extremist propaganda seeks to appeal to those seeking meaning, i.e., it has been found to be perceived as providing a 'competitive system of meaning',[56] and using eudaimonic entertainment content to convey feelings associated with the meaning of life.[57]

The Meaning Seeker type can, for instance, be motivated by the appeal of an epic narrative often underlying ideological content produced by extremist groups and the wish to feel one's own actions have a special purpose. Providing an epic narrative, an overarching story to guide the user through and help the user make sense of the gamified system and its tasks is an important aspect of gamification.[58] Simply collecting points or badges might be meaningless and bore some users rather fast. If, however, collecting points helps to defeat a dragon, build a castle, or save a princess, users are motivated by the overarching narrative to fulfill even the most mundane tasks. Similarly, points alone would quickly lose their appeal in extremist communities without a narrative providing a framework. Embedding posting troll comments and other small actions within an epic "Good vs. Evil" narrative—for example, trolls versus 'snowflakes'—may be appealing to Meaning Seekers. If motivated by jihadist ideology, Meaning Seekers may thrive on the recognition of online mujahideen playing an important part in the battle to save the world and derive meaning from the belief in gaining heavenly rewards for their actions.[59] For instance, in a famous tweet, lead ISIS propagandist Junaid Hussain alluded to taking the epic battle from the realm of games to reality: "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."[60] Gamification that includes an epic narrative can embed small actions such as commenting on or sharing propaganda into a meaning-providing overarching story, which may provide Meaning Seekers with additional motivation for engagement, i.e., they feel their actions have purpose.

Disruptor

According to Marczewski, users of the Disruptor type ask, "What can I break?", "Who can I upset?", and "How can I be heard?"[61] They thrive on challenging and upsetting other users and/or the system and want to be noticed for their destructive behavior. In the context of radicalization, Disruptors may seek thrill and adventure [62], and may ask "Whom can I upset?", for instance, with troll comments, doxing, dark-humored memes, and affronts against political correctness.[63] This may go hand in hand with satisfying the wish to be heard, as disruptive actions may spark positive in-group and negative out-group reactions. For instance, trolling under a Facebook post may provoke backlash and heated discussions with upset users, satisfying the Disruptor's need to challenge others. Simultaneously, Disruptors' upsetting actions may be validated and celebrated by the in-group, increasing chances to feel noticed and heard.

Game elements may provide additional rewards for Disruptors. Disruption itself could be gamified, e.g., with a 'quest' to troll certain accounts in a coordinated effort. This has been observed, for instance, on the far-right Discord server Reconquista Germanica, whose members coordinated troll attacks or comment shitstorms. [64] In addition, Disruptors could be rewarded through a gamified system—e.g., collect points or 'level up'

for a certain number of troll comments. On the Reconquista Germanica server, members could apply for promotions and rise up in the ranks after actively contributing to the trolling 'raids' and writing many negative comments.[65] Through such measures, Disruptors can visibly rise in social status and receive recognition for the disruptive actions they are intrinsically drawn to. Gamification can therefore encourage prolonged and active engagement in the online community for Disruptors, who not only satisfy their need for thrill and challenge but also feel socially validated for their disruptive actions.

Limitations of Framework

As discussed, current empirical evidence for the role of gamification in digitally mediated radicalization processes must still be regarded as extremely limited and largely anecdotal. We simply do not yet have sufficient empirical findings or a strong theoretical basis to understand the proliferation of gamification and its implications in digital extremist subcultures. Research claims on the gamification of radicalization processes should therefore be treated with some caution. The framework suggested in this article and its conclusions should be considered an exploratory, theoretical contribution to an emerging discourse. The user typology presented here is a work in progress and the first step toward an analysis of how individual differences shape engagement with gamified extremist content. It will need to be tested in and recalibrated by empirical research, e.g., by determining whether indeed all five user types are present in extremist online communities, whether additional (sub-) types are needed, how prevalent each type is, and whether one may be able to relate user types to other roles. It may be fruitful to ask if a certain user type is more likely than other types to bring destructive behavior into the real world. In addition, one of the issues empirical research will have to address is that the main motivational driver for any given user to engage in a gamified application may not be immediately evident from overtly observable behavior. How can researchers assess, for example, the prevalence of Competitors versus Socializers in any given extremist community utilizing gamified propaganda if they can only judge individual users based on their overt online posting behavior? Future research will need to find ways to operationalize the user type framework in situations where only limited information is available about what may drive an individual user. On a broader level, the importance of gamification as a potential facilitating factor of digital radicalization processes relative to other factors needs to be examined as well as how 'effectively' it is used within extremist online communities—i.e., how many radicalization processes are actually influenced by gamified content.

Conclusion

It is likely that gamification will become more prominent in the coming years. Some even argue we are entering a 'ludic century', characterized by the proliferation of play in all areas of life.[66] Gamification, therefore, is here to stay and is likely to continue to influence extremist communities and digitally mediated radicalization processes for years to come. This necessitates a serious engagement with gamification, its appeals, psychological underpinnings, and individual effects by the research community focused on (digital) extremism.

While the concept of gamification is increasingly included in research efforts, there are currently more questions than answers pertaining to its potential role in radicalization processes. Building upon the preliminary research available, this article has tried to make a theoretical contribution to the discourse. It highlights individual differences and preferences in the engagement with gamified extremist content and communities by applying Marczewski's HEXAD user typology to the context of extremism and potential drivers of radicalization. While HEXAD is an established framework, its application to the extremist context is preliminary and will need to be refined by empirical research. Deductively, the framework suggests five user types, including Socializers motivated by connection to others, Competitors seeking to compare themselves to their peers, Achievers driven by the desire to understand the world, Meaning Seekers wishing to engage in meaningful action that can provide them with a sense of purpose, and Disruptors who enjoy upsetting others. Understanding which game elements may be appealing to which users, and which users may not be drawn to the gamified application when certain elements are missing, can facilitate our understanding of individual variations in engagement with gamified extremist content and, therefore, support a more holistic analysis of contemporary digital communities.

More research is needed to expand the theoretical and empirical basis for understanding the potential role of gamification in radicalization processes and its function in extremist community interactions. This may include:

a) discussions on a better differentiation between the various game-related 'tools' used by extremists such as actual video games, gaming-adjacent platforms such as Discord, the use of gaming aesthetics in propaganda, and gamification,

b) empirical work analyzing the use of gaming elements in extremist settings and validating the theoretical basis developed so far, and

c) a discussion of the potential application of gamification in P/CVE.

Recent years have already seen an encouraging growth in research efforts utilizing the gamification concept. If the trend continues, the research community may have the rare chance to not just play catch-up with new features of extremist communication and community organization but to explore and analyze extremists' use of gamification while it is still unfolding.

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