

FAKE-VERTISING AND MOBILE GAMES: CASE STUDY OF 'PULL THE PIN' ADS

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ABSTRACT:

The mobile games segment currently represents the biggest share of the global game market with the highest year-on-year growth rate. Logically, the importance of mobile game marketing is increasing as well. However, some practices operate 'on the edge'. Utilising ads presenting fake gameplay footage, which can mislead potential new gamers and lure them to install such games, has become quite common and tolerated advertising practice (so far). This study examines the design and forms of already implemented fake ads on mobile games, concentrating particularly on the case study of originally fictional 'pull the pin' mechanics devised for this purpose and utilised by several games' promotions. The study aims to investigate how misrepresentations concerning 'pull the pin' fake ads on mobile games influence their overall rating expressed through the gamers' reviews of selected games on *Google Play*, as well as the impact of fake ads on other aspects of the mobile gaming sector by applying a discursive analysis.

KEY WORDS:

advertising, design, digital games, fake ads, gameplay, marketing, mobile games, 'pull the pin', rating, review

Introduction

"Mobile marketing" (defined as the utilisation of mobile technologies to reach stated marketing goals) and its opportunities have essentially changed since mobile phones – originally designed almost exclusively for telephoning – were transformed into smart devices and became central to the lives of most consumers within a relatively short period.¹ Unlike sending SMS and MMS, proximity marketing or 'traditional' advertising formats within the mobile Internet environment (banners, video commercials, etc.), the current mobile marketing is generally associated with mobile apps and their versatile, automatic and mostly necessary online synchronisation. We could say that the environment of those modern smart devices is a part of the globally interconnected cyberspace² that, among other things, became more than suitable for digital games integration and development, including the marketing communication related to it.

¹ See: MIKULÁŠ, P.: *Formy digitálneho a mobilného marketingu*. Nitra : Constantine the Philosopher University, 2017, p. 63-70.; PERSAUD, A., AZHAR, I.: Innovative Mobile Marketing via Smartphones: Are Consumers Ready?. In *Marketing Intelligence & Planning*, 2012, Vol. 30, No. 4, p. 418-420.

² For more information, see: GÁLIK, S., GÁLIKOVÁ TOLNAIOVÁ, S.: Cyberspace as a New Existential Dimension of Man. In ABU-TAIEH, E., EL MOUATASIM, A., AL HADID, I. H. (eds.): *Cyberspace*. London : InTech Open, 2020, p. 13-25.



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The digital gaming sector is one of the most important parts of the entertainment sphere. According to *Newzoo* insights,³ this sector has more than 2.5 billion gamers globally that generated revenue of 152.1 billion USD in 2019, with a 9.6% year-on-year increase. The interactive and rapidly evolving character of digital games and their platforms is strongly reflected in the development of this sector as well; therefore, several notable changes have occurred in recent years, particularly concerning mobile games. In 2019, mobile gaming was the largest segment with 45% of the global games market share and a value of 68.5 billion USD. Its current 10.2% year-on-year increase is actually equal to the average year-on-year increase in the overall global game market revenue over the last three years, but the average mobile games' year-on-year increase during the same interval exceeded 18.3% (even 25.5% in 2018). Mobile platforms quickly reached fourth place in the list including the most important gaming platforms, based on the game developers' interest and the number of digital games currently being developed for specific platforms.⁴ The numbers have even more increased concerning the COVID-19 pandemic situation. In 2020, statistics show a 25% increase in global weekly hours spent on mobile, monthly downloads of mobile apps and games, as well as monthly consumer spending than the monthly average of the second half of 2019.⁵

To achieve success in a market over-saturated by the enormous and still increasing number of mobile games, it is necessary to support the acquisition of new gamers by performing advertising activities. According to D. B. Nieborg, "effective app advertising has become a key competitive advantage for game developers and publishers".⁶ Marketing communication of mobile games largely depends on business models they are based on – premium, pay-to-play, 'paymium', 'freemium', and free-to-play. However, the free-to-play model currently dominates the mobile gaming market. According to the ARM (Acquisition, Retention, Monetisation) funnel that is commonly applied within the free-to-play model, the cost of acquiring a new gamer (including advertising) should be lower than the estimated average revenue from the gamer during their entire playing.⁷ The basic types of ad formats used include:

- banner (a mostly rectangular, image-based, animated ad);
- interstitial (an image-based, animated, video-based full-screen ad);
- native (an ad highly adapted to platform, corresponding with its form and function);
- video (video-based ads, commercials);
- rewarded video (video-based ads providing in-app/in-game rewards for displaying or interacting with them),
- playable (image-based, animated, video-based ads augmented by an interactive part);
- offerwall (a list of multiple offers and available ads, displaying or interacting with which provides in-app/in-game rewards).⁸

Individual types can be combined to make effective use of their advantages. In the digital gaming environment, many of those types are often integrated directly into the game. The higher the integration of an ad with gameplay, the more similar the ad is with in-game advertising characteristics. For example, native ads in mobile games represent a fundamental form of in-game advertising.⁹

3 Compare to: WIJMAN, T.: *The Global Games Market Will Generate \$152.1 Billion in 2019 as the U.S. Overtakes China as the Biggest Market*. [online]. [2020-04-29]. Available at: <<https://newzoo.com/insights/articles/the-global-games-market-will-generate-152-1-billion-in-2019-as-the-u-s-overtakes-china-as-the-biggest-market/>>; WIJMAN, T.: *Mobile Revenues Account for More Than 50% of the Global Games Market as It Reaches \$137.9 Billion in 2018*. [online]. [2020-04-29]. Available at: <<https://newzoo.com/insights/articles/global-games-market-reaches-137-9-billion-in-2018-mobile-games-take-half/>>; MCDONALD, E.: *The Global Games Market Will Reach \$108.9 Billion in 2017 With Mobile Taking 42%*. [online]. [2020-04-29]. Available at: <<https://newzoo.com/insights/articles/the-global-games-market-will-reach-108-9-billion-in-2017-with-mobile-taking-42/>>.

4 RICHTER, F.: *The Most Important Gaming Platforms in 2019*. [online]. [2020-04-29]. Available at: <<https://www.statista.com/chart/4527/game-developers-platform-preferences/>>.

5 SYDOW, L.: *How COVID-19 Has Changed Consumer Behavior on Mobile Forever*. [online]. [2020-10-17]. Available at: <<https://www.appannie.com/en/insights/market-data/covid19-consumer-behavior-mobile/>>.

6 NIEBORG, D. B.: Free-To-Play Games and App Advertising: The Rise of the Player Commodity. In HAMILTON, J. F., BODLE, R., KORIN, E. (eds.): *Explorations in Critical Studies of Advertising*. New York: Routledge, 2017, p. 28.

7 ALOMARI, K. M., SOOMRO, T. R., SHAALAN, K.: Mobile Gaming Trends and Revenue Models. In FUJITA, H. et al. (eds.): *IEA/AIE 2016: Trends in Applied Knowledge-Based Systems and Data Science*. Cham: Springer, 2016, p. 673-674.

8 See: DELTADNA: *Ad Survey Results: An In-Depth Study of In-Game Advertising*. [online]. [2020-10-17]. Available at: <<http://go.deltadna.com/rs/554-FYX-755/images/ad-survey-results-2016.pdf>>; AHASANUZZAMAN, M. et al.: A Longitudinal Study of Popular Ad Libraries in the Google Play Store. In *Empirical Software Engineering*, 2020, Vol. 25, No. 1, p. 833; MAGO, Z.: New Trends of Marketing Communication Based on Digital Games. In *European Journal of Science and Theology*, 2017, Vol. 13, No. 6, p. 173-174.

9 MAGO, Z.: *World of Advergaming: Digitálne hry ako nástroje reklamy*. Trnava: FMK UCM, 2016, p. 57-58.

Effective advertising sometimes also means daring to act creatively, or even with an element of risk. The study focuses on the recent trend within mobile game advertising, fake gameplay ads, which are based on misleading and misrepresenting the gameplay of games they promote. Besides examining the current extent of these questionable promotional methods, the study aims to investigate the impact of 'fake gameplay ads' implementation on mobile games' ratings as well as their overall impact on other aspects of the mobile gaming sector by a case study of the 'pull the pin' ads.

Fake Ads in Mobile Games

Mobile games statistics for 2020 show that paid advertising increases mobile game downloads by 15%, while players of casual games (the leading genre with 58.86%, followed by puzzles with 56.5% and arcade games with 55.08%) are used to watch twice as many ads as do gamers of other mobile game genres.¹⁰ The marketing consulting agency *Udonis* used the ad in the game *Homescapes*¹¹ as one of three representative examples of effective performing ads on casual mobile games, because it does not portray the main aspects of the gameplay, but separate puzzles, creating a challenge for potential new gamers.¹² Although this model evidently works, the analysis no longer mentioned that at the time of the promotion, displayed puzzles in ads were based on game mechanics, which were not part of *Homescapes*' gameplay or the entire game. This promotional concept, "fake game ads" (or "fake gameplay ads", to be more precise), appeared for the first time around mid-2019, and has been implemented, for example, by the mobile games *My Home – Design Dreams*,¹³ *Home Design Makeover*,¹⁴ *Hero Wars*,¹⁵ *Mafia City*,¹⁶ and others.¹⁷

E. B. Seufert defines "fake game ads" as "ads that promote gameplay footage totally unrelated to the games they are meant to depict".¹⁸ His definition clearly reflects the dissonance between actual and promoted games, but it is not completely accurate. Depicted gameplay footage in ads does not have to be necessarily 'totally unrelated' to the games they promote. Fake gameplay from ads may be designed consistently with the visual style of the actual game or contain its distinctive elements (e.g. main character). Depicted game mechanics also belongs to misleading components, giving false promises about the possibilities of actual gameplay. These can completely change the perceived genre of the promoted game. Currently popular game mechanics or mechanics from popular games in particular are often used, including completely fictional mechanics. A comprehensive definition could be, therefore, formulated as follows: Fake gameplay ads are ads, which promote the game by depicting gameplay footage that does not, however, reflect actual essential gameplay of the promoted game in some way. Within a theoretical framework, the explanation of the "fake gameplay ads" phenomenon establishment has to take into account several fundamental points of view.

The characteristic feature of postmodernism is a tendency to utilise techniques of transtextuality, seriality and remakes in creating cultural artefacts to effectively meet the target audience's expectations, and this includes both advertising and digital games as well.¹⁹ New cultural and media products are becoming inspired by or refer (by the whole concept or transtextual elements like 'Easter Eggs'²⁰) to other already existing products because of

10 KNEZOVIĆ, A.: *85+ Mobile Gaming Statistics for 2020 That Will Blow Your Mind*. [online]. [2020-08-12]. Available at: <<https://www.blog.udonis.co/mobile-marketing/mobile-games/mobile-gaming-statistics>>.

11 PLAYRIX: *Homescapes*. [Digital Game]. Dublin: Playrix, 2017.

12 KNEZOVIĆ, A.: *How to Advertise a Casual Mobile Game in 2020 [Infographic]*. [online]. [2020-08-12]. Available at: <<https://www.blog.udonis.co/mobile-marketing/mobile-games/casual-mobile-game-advertising>>.

13 ZENLIFE GAMES: *My Home – Design Dreams*. [Digital Game]. Singapore: ZenLife Games, 2018.

14 STORM8: *Home Design Makeover*. [Digital Game]. San Mateo: Storm8 Studios, 2018.

15 NEXTERS: *Hero Wars*. [Digital Game]. Larnaca: Nexters Global, 2016.

16 YOTTAGAMES: *Mafia City*. [Digital Game]. Hong Kong: YottaGames, 2017.

17 STEPANOVA, N.: *Misleading Ad in Mobile Games: Playrix, Matchington Mansion, Mafia City*. [online]. [2020-08-13]. Available at: <<https://apptica.com/blog/misleading-ad-in-mobile-games-playrix-matchington-mansion-mafia-city/>>.

18 SEUFERT, E. B.: *Why Do Mobile Gaming Companies Use Fake Ads?*. [online]. [2020-04-27]. Available at: <<https://mobiledevmemo.com/why-do-mobile-gaming-companies-use-fake-ads/>>.

19 KVETANOVÁ, Z., RADOŠINSKÁ, J.: Expressions of Postmodernism within the Dimension of Digital Games. In *European Journal of Media, Art & Photography*, 2020, Vol. 8, No. 1, p. 88.

20 MAGO, Z.: Easter Eggs in Digital Games as a Form of Textual Transcendence (Case Study). In *Acta Ludologica*, 2019, Vol. 2, No. 2, p. 50-54.

their popularity, commercial success or efficiency in reaching specific goals. The extent of external inspiration can sometimes even cross the border into plagiarism.²¹ Advertising establishes relationships with art (the affirmative, controversial, obvious or hidden ways in the process of semiosis),²² parodies and remakes of past and current advertisements,²³ and can parasite itself onto someone else's marketing activities (e.g. 'ambush' marketing).²⁴ Even the 'fake' concept itself is not anything new within communication practices. The current examples are fake and deepfake news – untrue, fictitious or distorted information, which can provoke a specific response or reaction,²⁵ which, according to A. Kazakov, belong to negative effects of a post-truth media environment.²⁶

Fake gameplay ads are probably the most closely related to comparative, or even more to misleading advertising. Regarding the legal terms, misleading advertising is regulated by laws (e.g. § 54, Sec. 14 of US Federal Trade Commission Act,²⁷ § 45 of the Slovak Commercial Code),²⁸ and therefore often illegal in many countries. The most common business model of games promoted by fake gameplay ads complicates or makes unclear the applicability of these laws. Free-to-play games are free to download and may contain advertisements and optional microtransactions,²⁹ so since the actual "gameplay becomes apparent before purchases are made available, it might be difficult to claim that any payments were directly the result of seeing an ad".³⁰ The advertising platforms (Google, Facebook, etc.) have not dealt with the issue of the misleading nature of these ads so far because they work, are effective, and therefore also profitable. However, it does not mean that using fake gameplay ads cannot carry any risk in the near or distant future.³¹

In general, J. Fishman identified three effects resulting from the implementation of a fake ad strategy:

- driving users that convert to gamers and paying users by attracting fans of other game genres, thus generating direct value through high LTV users;
- increasing reach into new audiences to increase the number of new installs, rankings and organic visibility that results in more installs also outside the viewing of fake ads;
- creating a dissonance between game ratings and reviews that leads to damage to conversion rates, and results in stagnation or decrease of game rankings in the long run.³²

21 FICHNOVÁ, K., WOJCIECHOWSKI, L., SZABO, P.: Originalita plagiátu – plagiátorstvo originality. In *Annales Universitatis Paedagogicae Cracoviensis: Studia Linguistica VII. Dialog z tradycją*, 2012, Vol. 115, No. 7, p. 106-107.

22 GERO, Š.: *Komunikácia – umenie – marketing*. Nitra: Constantine the Philosopher University, 2012, p. 222-230.

23 STURKEN, M., CARTWRIGHT, L.: *Studia vizuální kultury*. Prague: Portál, 2009, p. 271-308.

24 WOJCIECHOWSKI, L. P.: *Ambient Marketing + Case Studies in V4 Countries*. Krakow: Towarzystwo Słowaków w Polsce, 2016, p. 29.

25 See: HOSSOVÁ, M.: Fake News and Disinformation: Phenomenons of Post-Factual Society. In *Media Literacy and Academic Research*, 2018, Vol. 1, No. 2, p. 28; EGER, L. et al.: Trust Building and Fake News on Social Media from the Perspective of University Students from Four Visegrad Countries. In *Communication Today*, 2020, Vol. 11, No. 1, p. 74-76; LEVITSKAYA, A., FEDOROV, A.: Analysis of Manipulative Media Texts: World Media Literacy Education Experience. In *Media Education (Mediaobrazovanie)*, 2020, Vol. 60, No. 3, p. 431-437; WHYTE, C.: Deepfake News: AI-enabled Disinformation as a Multi-level Public Policy Challenge. In *Journal of Cyber Policy*, 2020, Vol. 5, No. 2, p. 2-5.

26 KAZAKOV, A.: Post-Truth as a Main Feature of Modern Media Landscape and Primary Concern of Media Education. In *Media Education (Mediaobrazovanie)*, 2019, Vol. 59, No. 4, p. 503.

27 *Federal Trade Commission Act*. [online]. [2020-08-12]. Available at: <https://www.ftc.gov/sites/default/files/documents/statutes/federal-trade-commission-act/ftc_act_incorporatingus_safe_web_act.pdf>.

28 *Legal Act No. 513/1991, Coll. From 5th November 1991*. [online]. [2020-08-12]. Available at: <<https://www.slov-lex.sk/pravne-predpisy/SK/ZL/1991/513/>>.

29 ALOMARI, K. M., SOOMRO, T. R., SHAALAN, K.: Mobile Gaming Trends and Revenue Models. In FUJITA, H. et al. (eds): *IEA/AIE 2016: Trends in Applied Knowledge-Based Systems and Data Science*. Cham: Springer, 2016, p. 673.

30 SEUFERT, E. B.: *Why Do Mobile Gaming Companies Use Fake Ads?*. [online]. [2020-04-27]. Available at: <<https://mobiledevmemo.com/why-do-mobile-gaming-companies-use-fake-ads/>>.

31 SEUFERT, E. B.: *Why Do Mobile Gaming Companies Use Fake Ads?*. [online]. [2020-04-27]. Available at: <<https://mobiledevmemo.com/why-do-mobile-gaming-companies-use-fake-ads/>>.

32 FISHMAN, J.: *Why Do Mobile Gaming Companies Use Fake Ads? One More Point*. [online]. [2020-08-11]. Available at: <<https://www.storemaven.com/mobile-gaming-companies-fake-ads/>>.

Methodology – Case Study of the 'Pull the Pin' Ads

The study aims to investigate what the purpose is of the current trend of misrepresentations concerning fake ads on mobile games and how they influence the mobile gaming sector by demonstrating these impacts in the case study on 'pull the pin' fake gameplay ads.

'Pull the pin' is originally fictional game mechanics based on a puzzle principle of pulling out pins in the right order to reach a goal (loot the gold, save the princess, defeat the enemy, etc.). It was created by the developers of the fantasy multiplayer adventure game *Hero Wars* (released by *Nexters Global* in 2016 on *App Store*, later in 2017 on *Google Play*, and playable also through *Facebook* and its own website) for promotional purposes; however, its gameplay was different in genre. It included features of the RPG genre within PVE campaigns, and individual and guild PVP battles, while gamers should be collecting, controlling and levelling up mighty heroes.³³ Based on the backtracking of the *Hero Wars Facebook* page, the mechanics first appeared around May 2019 in a posted video titled 'How to loot?' (Figure 1), and subsequently, it has become the common visual design of the game's advertising, thus fake gameplay ads.

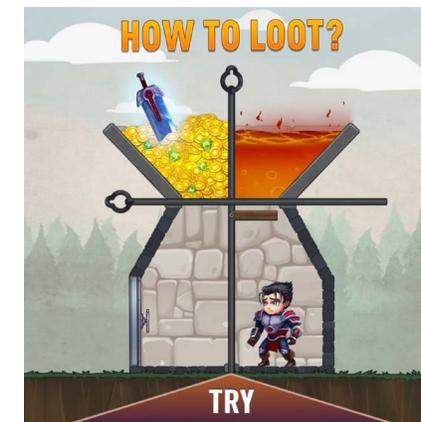


Figure 1: Most likely the first 'pull the pin' fake ad

Source: *How to Loot?* [online]. [2020-08-11]. Available at: <<https://www.facebook.com/watch/?v=2666233773602987>>.

At the end of September 2019, the YouTuber SuperTeeds published the video 'HERO WARS: Ad VS Gameplay', in which she compared *Hero Wars* ads and its actual gameplay, and at the same time, revealed that 'pull the pin' mechanics have already been part of the gameplay in the form of bonus levels.³⁴ According to video commentaries, this revelation was surprising news for many gamers (a game update with this change was probably relevant especially for new gamers and gamers at lower levels), particularly because a number of them started to play *Hero Wars* simply because of these fake ads.

The increasing popularity of 'pull the pin' mechanics among gamers, as well as their marketing potential, did not remain unnoticed. In accordance with the theory of the ARM funnel,³⁵ these ads represent a convenient way to acquire new gamers in the phase of acquisition (as both viral and non-viral sources). Following the example of *Hero Wars*, many other free-to-play mobile games started to utilise this fake design in their advertisements, partially adapted to their own gameplays' visuals. Based on that, we formulated the research question:

33 *Hero Wars – Men's Choice Epic Fantasy RPG*. [online]. [2020-08-11]. Available at: <<https://nexters.com/hero-wars/>>.

34 SUPERTEEDS: *HERO WARS: Ad VS Gameplay*. [online]. [2020-08-11]. Available at: <<https://www.youtube.com/watch?v=4TBneAXwuW4>>.

35 ALOMARI, K. M., SOOMRO, T. R., SHAALAN, K.: Mobile Gaming Trends and Revenue Models. In FUJITA, H. et al. (eds): *IEA/AIE 2016: Trends in Applied Knowledge-Based Systems and Data Science*. Cham: Springer, 2016, p. 673-674.

RQ1: What is the extent of using 'pull the pin' mechanics within mobile games ads?

Another issue is a consequence resulting from misleading gamers. In general, gamers are remarkably sensitive to the qualitative discrepancy between the promoted and final versions of games, especially when advertising fulfills their expectations more than the final product. Critical reactions of gamers in the form of negative reviews and ratings, followed by decreasing downloads or sales, are inevitable results of such situations. In the case of the AAA digital game *Alien: Colonial Marines*,³⁶ gamers described the difference between the in-game and playthrough footage used in advertising at game events like E3 as absurd, and themselves subsequently filed a lawsuit against the companies *Sega* and *Gearbox*.³⁷ In order to reflect this gamers' tendency, we formulated two research questions:

RQ2: What impact do 'pull the pin' fake gameplay ads have on mobile games' ratings?

RQ3: How do 'pull the pin' fake gameplay ads in mobile games influence other aspects of the mobile gaming sector?

Achieving the stated goal required a qualitative-quantitative approach and a combination of several research methods utilising both primary and secondary data. The quantitative content analysis was applied to the research material which consisted of interstitial and rewarded video ads appearing in the mobile games *Diggy's Adventure*³⁸ and *Johnny Trigger*³⁹ during ordinary playing – on average, around 7 ads of length 5 – 30 seconds⁴⁰ daily in H1 2020. Ads, which included 'pull the pin' mechanics in any visual design, represented the monitored elements. The analysis was limited to the occurrence of these mechanics with various games' ads, not the overall frequency of their occurrence, to be able to determine different mobile games using the same gameplay feature as promotion. Subsequently, the qualitative analysis examined the relation of identified games' gameplays and 'pull the pin' mechanics, specifically the integration of this feature in the original core gameplay of the investigated games, to determine the extent of the presented ads' deceptiveness.

The impact of 'pull the pin' fake gameplay ads on mobile games' ratings was examined by a comparative analysis of selected games' average ratings and reviews within *Google Play*, which reflected overall ratings and ratings based on a custom range of users' reviews according to specific key words. Although a scale from 5 stars (best) to 1 star (worst) represents the ratings on *Google Play*, the ratings 4 to 2 were so few that we decided to simplify it to a bipolar form – *positive* (5 to 2) and *negative* (1). As stated by M. R. Islam, users are familiar with going for a summary rather than an elaborative statement.⁴¹ Input data was obtained from the analytics tool *App Annie*. The research material consisted of mobile games identified by qualitative-quantitative content analysis corresponding only to the period Q1 2020, due to the limitation of the non-premium license of the analytics tool. In general, for the purpose of comparative analysis, three types of ratings were acquired:

1. average overall ratings of games;
2. average ratings of games after filtering users' reviews by the key word 'advertisement';
3. average ratings of games after filtering users' reviews by the key words 'fake', 'deceptive', 'false', 'illegal', and 'misleading' (based on the most frequently occurring adjectives related to negative reviews filtered by the word 'advertisement').

36 CEARBOX SOFTWARE: *Aliens: Colonial Marines*. [Digital Game]. Tokyo : Sega, 2013.

37 See: YIN-POOLE, W.: *Sega Adds Disclaimer to Aliens: Colonial Marines Trailers after Admitting They Didn't Accurately Reflect Final Game*. [online]. [2020-08-09]. Available at: <https://www.eurogamer.net/articles/2013-04-03-sega-adds-disclaimer-to-aliens-colonial-marines-trailers-after-admitting-they-didnt-accurately-reflect-final-game>; CRECENTE, B.: *Sega to Tentatively Pay Out \$1.25M in Aliens Suit while Gearbox Fights on*. [online]. [2020-08-10]. Available at: <https://www.polygon.com/2014/8/11/5993509/aliens-colonial-marines-class-action-settlement>.

38 PIXEL FEDERATION: *Diggy's Adventure*. [Digital Game]. Bratislava : Pixel Federation, 2016.

39 SAYGAMES, ESTOTY: *Johnny Trigger*. [Digital Game]. Minsk : SayGames, 2019.

40 Remark by author: Interstitial ads could be skipped after 5 seconds of displaying; rewarded video ads had to be viewed in full length or possibly skipped after a minimum of 30 seconds of displaying to be able to confirm the in-game reward.

41 ISLAM, M. R.: Numeric Rating of Apps on Google Play Store by Sentiment Analysis on User Reviews. In *1st International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT 2014)*. Piscataway : IEEE, 2014, p. 1. [online]. [2020-08-12]. Available at: <https://ieeexplore.ieee.org/document/6919058>.

To be able to relevantly filter reviews, the basic set of ratings was limited to the English language. The inclusion of all review languages (and thus ratings) would at least require an appropriate translation of the key words, but this would not necessarily cover all the terms used in specific languages, or the determination of key words based on the content analysis of reviews in each supported language.

Finally, we used discourse analysis to find out how 'pull the pin' fake gameplay ads in mobile games have influenced the development of the mobile gaming sector, particularly focusing on the analysis of the current *Google Play* games' assortment, and comprehensive trends related to the 'pull the pin' concept.

Results

RQ1: What is the extent of using 'pull the pin' mechanics within mobile games ads?

During H1 2020, within the quantitative content analysis, we identified 10 different mobile games from all observed games, which have been promoted by ads presenting 'pull the pin' mechanics as the gameplay of those games. Only two out of 10 were actually based on these mechanics. In the other 8 cases, it was a misleading promotion, because their gameplays actually corresponded to game genres like RPG, building simulators, 'Match 3' or shelter managing, etc. Five of these games later integrated 'pull the pin' mechanics in the form of bonus levels or minigames. A summary of findings together with additional information about the identified games is presented in Table 2, and Table 3 subsequently demonstrates visual differences between actual gameplays and fake 'pull the pin' gameplays of five selected mobile games.

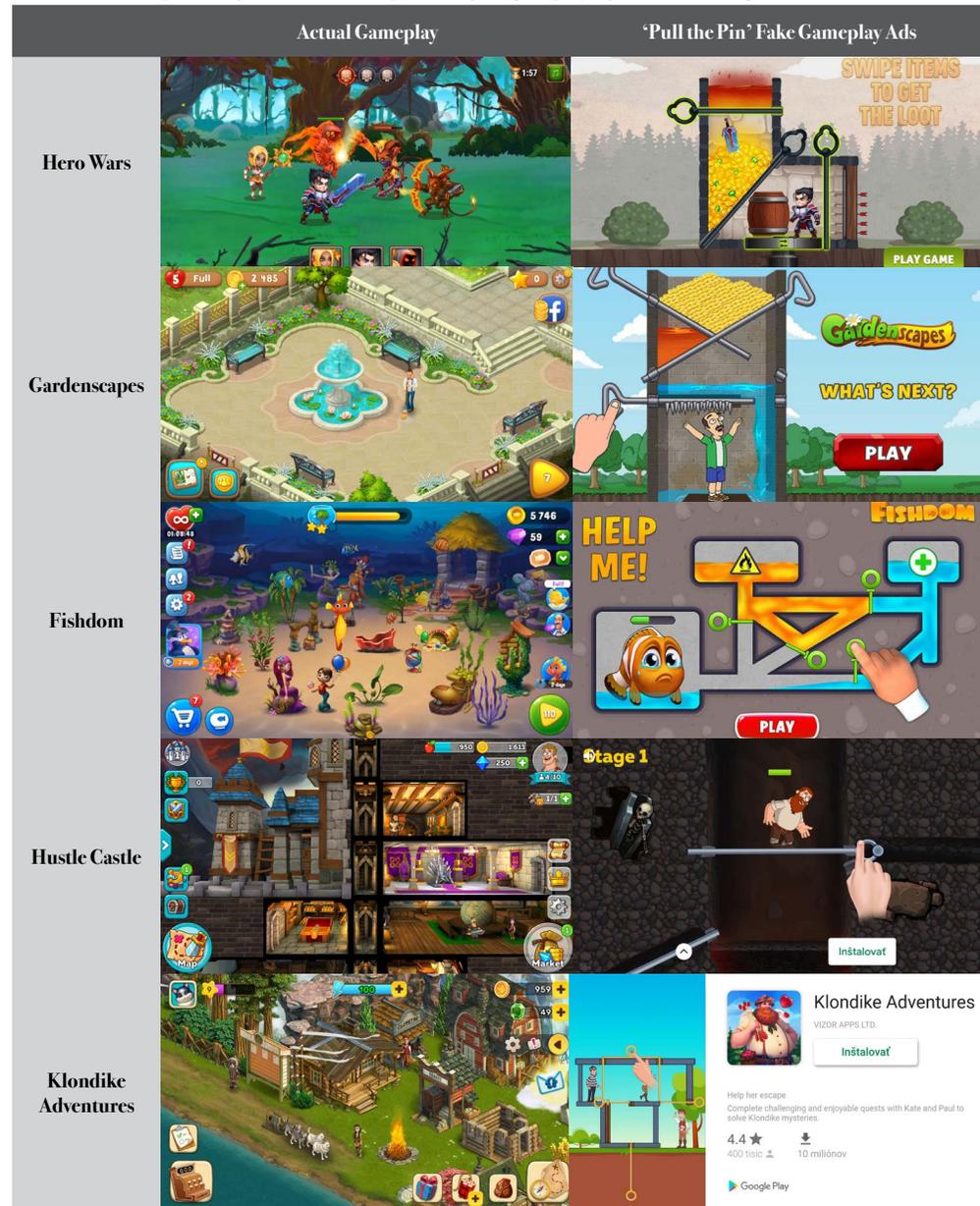
Table 1: Mobile games promoted by the 'pull the pin' fake gameplay ads during H1 2020

Game Title	Google Play Release Date	vDeveloper	Google Play Ratings		Original Core Gameplay 'Pull-the-Pin' Integration
			Score	Total (mil.)	
Fishdom	2016-02-03	Playrix	4.2	4.2	N*
Gardenscapes	2016-07-05	Playrix	4.3	9.5	N*
Hero Wars	2017-02-16	Nexters	4.47	0.94	N*
Hustle Castle	2017-03-31	Nord Studio	4.22	1.4	N*
Klondike Adventures	2017-07-27	Vizor Apps	4.34	0.66	N*
Idle Evil Clicker	2018-03-30	AppQuantum	3.84	0.14	N
Zero City	2019-03-21	BeINGAME LIMITED	4.35	0.23	N
Art of War: Legions	2019-09-29	Fastone Games	4.51	0.51	N
Pull Him Out	2020-05-01	Lion Studios	3.31	0.065	Y
Love Pins	2020-06-05	Supersonic Studios	3.49	0.017	Y

* Ex post integration in the form of bonus levels or mini-games via app updates according to users' game reviews, videos, and discussion forums.

Source: Own processing; Rating details are based on the data retrieved from *App Annie* on 7th August 2020

Table 2: Visual comparison of actual and in-ads presented fake gameplays of selected mobile games



Source: Own processing⁴²

42 Author's screenshots of mobile games' actual gameplays (left column): NEXTERS: *Hero Wars (Android Version)*. [Digital Game]. Larnaca : Nexters Global, 2017; PLAYRIX: *Gardenscapes (Mobile Version)*. [Digital Game]. Dublin : Playrix, 2016; PLAYRIX: *Fishdom (Mobile Version)*. [Digital Game]. Dublin : Playrix, 2016; NORD STUDIO: *Hustle Castle*. [Digital Game]. Amsterdam : My.com, 2017; VIZOR APPS: *Klondike Adventures*. [Digital Game]. Paphos : Vizor Apps, 2017; Author's screenshots of 'pull the pin' fake gameplay ads were taken while playing the game *Diggy's Adventure* during Q1 2020, specifically (top down) on 3rd March, 15th February, 24th February, and 11th February.

Besides 'pull the pin' fake ads, we also observed many other designs of fake gameplays implemented in ads, several of them used by the same games. For example, the 'choose the way' concept (the gamer chooses one of the offered ways of how to solve the situation) was quite common, promoting *Township*,⁴³ *Fishdom*,⁴⁴ *Homescapes*, etc. One ad on the mobile RPG fantasy game *Guild of Heroes*⁴⁵ even started with a parachute jump from a reef such as in MOBA games like *PlayerUnknown's Battlegrounds*⁴⁶ that also has a mobile version.

RQ2: What impact do 'pull the pin' fake gameplay ads have on mobile games' ratings?

Research material for analysing ratings consists of five mobile games, which used 'pull the pin' fake gameplays for promotion during Q1 2020, specifically *Hero Wars*, *Gardenscapes*, *Fishdom*, *Hustle Castle* and *Klondike Adventures*. Via the analytics tool *App Annie*, we monitored the number of users' reviews on the researched games and compared their amount for all time and the period Q1 2020. Ratings from Q1 2020 were then divided into two groups by filtering their content using the key word "advertisement" and the key words "fake", "deceptive", "false", "illegal" and "misleading" (hereinafter shortly referred to as "fake"). Table 3 summarises the totals of positively and negatively rated reviews, as well as the average ratings for all researched games.

Table 3: Google Play reviews and ratings of selected games during Q1 2020 filtered by key words

	Reviews	All Time		Q1 2020		Total		Q1 2020	
		positive (5-2)	negative (1)	total	positive (5-2)	negative (1)	total	Advertisement	Fake*
Hero Wars	positive (5-2)	51,763	82.66%	30,395	92.76%	114	19.29%	60	11.88%
	negative (1)	10,860	17.34%	2,373	7.24%	477	80.71%	445	88.12%
	total	62,623	100.00%	32,768	100.00%	591	100.00%	505	100.00%
	ratings		4.20		4.60		1.50		1.30
Gardenscapes	positive (5-2)	237,309	77.36%	52,535	74.75%	635	11.72%	365	8.06%
	negative (1)	69,438	22.64%	17,747	25.25%	4,782	88.28%	4,162	91.94%
	total	306,747	100.00%	70,282	100.00%	5,417	100.00%	4,527	100.00%
	ratings		3.80		3.70		1.20		1.10
Fishdom	positive (5-2)	79,400	66.31%	21,900	64.43%	587	11.13%	268	8.07%
	negative (1)	40,341	33.69%	12,090	35.57%	4,689	88.87%	3,052	91.93%
	total	119,741	100.00%	33,990	100.00%	5,276	100.00%	3,320	100.00%
	ratings		3.40		3.30		1.20		1.10
Hustle Castle	positive (5-2)	13,818	75.92%	2,309	73.96%	28	15.82%	16	12.50%
	negative (1)	4,382	24.08%	813	26.04%	149	84.18%	112	87.50%
	total	18,200	100.00%	3,122	100.00%	177	100.00%	128	100.00%
	ratings		3.70		3.60		1.30		1.20
Klondike Adventures	positive (5-2)	37,714	82.72%	10,112	81.06%	85	12.01%	44	10.09%
	negative (1)	7,878	17.28%	2,362	18.94%	623	87.99%	392	89.91%
	total	45,592	100.00%	12,474	100.00%	708	100.00%	436	100.00%
	ratings		3.90		3.80		1.20		1.20

* Represents five applied key words: "fake", "deceptive", "false", "illegal", "misleading".

Source: Own processing: Based on the data retrieved from *App Annie* on 31st March 2020

Figure 2 presents the overall percentage shares of positive and negative ratings of the selected games by the stated categories. On average, 7.28% of all reviews and 26.11% of all negative ratings from Q1 2020 on *Google Play* contained the key word "advertisement". 5.07% of all reviews and 19.56% of all negative

43 PLAYRIX: *Township*. [Digital Game]. Dublin : Playrix, 2012.

44 PLAYRIX: *Fishdom (Mobile Version)*. [Digital Game]. Dublin : Playrix, 2016.

45 BIT.GAMES: *Guild of Heroes*. [Digital Game]. Penza : BIT.GAMES, 2015.

46 PUBG CORPORATION: *PlayerUnknown's Battlegrounds (Mobile Version)*. [Digital Game]. Shenzhen : Tencent Games, 2018.

ratings from the same period contained the key word(s) “fake”. The highest share of negative ratings related to “advertisement” (38.78%) as well as “fake” (25.24%) showed up for the game *Fishdom*, the smallest share (18.33% related to “advertisement”; 13.78% related to “fake”) for the game *Hustle Castle*.

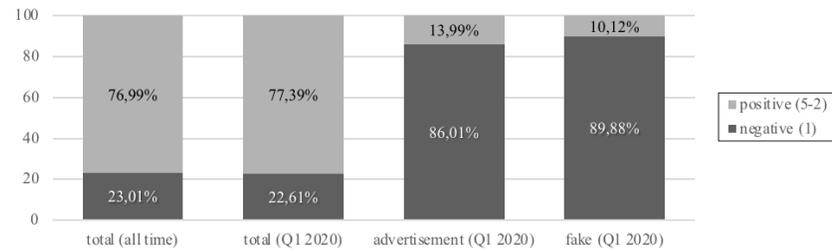


Figure 2: Comparing the share of positive and negative ratings of selected games during Q1 2020 filtered by key words
Source: Own processing

RQ3: How do ‘pull the pin’ fake gameplay ads on mobile games influence other aspects of the mobile gaming sector?

According to *Google Trends*, searching for the term “pull the pin” rapidly increased at the beginning of 2020 with a culmination in March, corresponding to the period with the most intense implementation of fake ads utilising these game mechanics. The highest share (100) among related topics belonged to “game”, and among related queries, it was “pull the pin game”. Additionally, trending searches by categories showed a significant correlation ($r(50)=.8746$, $p<.00001$) between searching for the term “pull the pin” within all categories and the category of games (Figure 3), indicating a notable relation of this term directly with the games sector. This fact manifested itself by the increasing development of new mobile games based on these originally fictional mechanics as a core feature of gameplay.

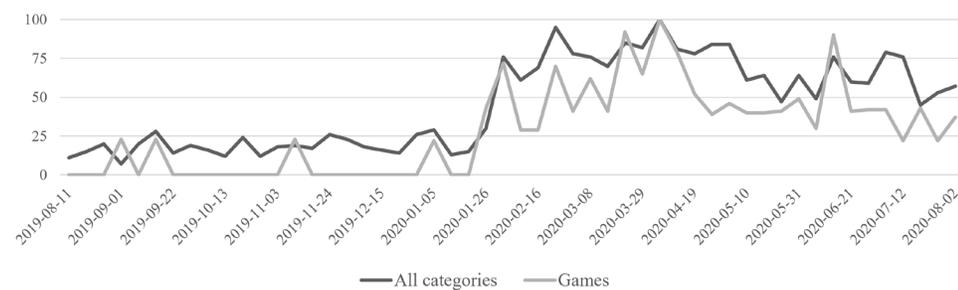


Figure 3: Trending searches of the “pull the pin” term for the period of last 12 months
Source: Own processing; Based on data retrieved from *Google Trends* on 7th August 2020

On 16th January 2020, the German developer *Popcore Games* published *Pull the Pin*,⁴⁷ the first game essentially based on ‘pull the pin’ mechanics, and named after it. The game represents a purely logical approach typical for the mobile puzzle genre, without any contextual bonds with *Hero Wars*. A month later, the Russian studio *Kometa.Games* published the puzzle game *Rescue Knight*⁴⁸ that utilises ‘pull the pin’ and several other popular puzzle mechanics like ‘cut the rope’ all within the considerably similar visual style of *Hero Wars* ads. The game’s goal is just to make the knight safely loot the gold. It also integrates the simulation of the player’s IQ calculation based on the ability to solve the puzzle, similarly presented in fake ‘pull the pin’ ads. Less than three weeks later, the Vietnamese developer *Super Games Studios* came out with the game *Hero*

Rescue,⁴⁹ copying *Rescue Knight*’s gameplay in both visual (e.g. the Knight has the same scar through the eye) and playing style (mechanics ‘pull the pin’, ‘cut the rope’, looting, IQ calculation, etc.) this time with a heroic leitmotif to save the princess, the so called ‘damsel-in-distress’ setting. At the end of March 2020, studio *Mini-Dev* published two similar games, *Hero Rescue* and *Save the Girl*, the visuals of which differed from the *Hero Wars* style, but the game’s icon associated the main character from *Gardenscapes*, more precisely a simplified version of this character presented in its fake ads. These two games were removed from *Google Play* shortly after their release.

Searching for the term “pull the pin” in the category of games at *Google Play* showed that by 9th August 2020, the store offered 250 games – 106 games with a visual representation of ‘pull the pin’ mechanics within the application icon (including *Township*, *Fishdom* and *Homescapes*, all from *Playrix* like *Gardenscapes*, the basic gameplays of which are not matching ‘pull the pin’); another 12 games with gameplay based on these mechanics in whole or in part, but without corresponding icons; and 132 other games without any relation to mechanics ‘pull the pin’ mechanics (thus synonymic or partial word matching).

Discussion

“There’s no better way to learn how to create top-notch ads than by analysing competitor’s ads”.⁵⁰ 10 games utilising ‘pull the pin’ fake ads were identified in the observed games over the monitored period; many others were revealed by closer examination, and up to 106 games on *Google Play*, which implement ‘pull the pin’ mechanics in gameplay or promotional elements (ads, icons, screenshots, etc.) up to 9th August 2020, so that we consider this as clear evidence of the wide spread of this fake concept within mobile games advertising. Criticism from gamers subsequently forced the creators of the ‘fake-vertised’ games to at least partially integrate ‘pull the pin’ mechanics into their gameplay (e.g. bonus levels, mini-games), most commonly in the context of ‘how to loot’.

The overall impact of ‘pull the pin’ fake ads on game ratings was mostly negative; however, there is definitely a group of gamers who started to like those ‘fake-vertised’ games after a couple of hours of playing, even though after their installations they discovered that the promoted gameplays were misleading. A very similar ratio of negative ratings filtered by the key words “advertisement” and “fake” points to their close relationship that game developers should take into account while analysing the effectiveness of the promotion. The average ratings of the investigated games were 3.80 for both all-time and Q1 2020, 1.28 for the key word “advertisement”, 1.18 for the key words of the “fake” group in Q1 2020, and the number of positive and negative ratings for all-time and Q1 2020 were correlated (positive ratings: $r(3)=0.9144$, $p<.05$; negative ratings: $r(3)=0.9936$, $p<.001$). It indicates that if the games have been promoted by ‘fake gameplay ads’ for all-time of their existence, more than a quarter of negative reviews would be caused by their advertising and almost one-fifth by misleading in general. Additionally, “negative reviews have potential to hurt overall conversion rates over time, especially as they accumulate”,⁵¹ thus applying this strategy in the long term to artificially increase the number of new players, respectively new installations might be considerably risky. For further research, we would recommend using the method of a sentiment analysis of users’ reviews.⁵²

The ‘pull the pin’ mechanics has gained notable popularity with the audience. Many gamers have installed ‘fake-vertised’ games just to play the interesting-looking puzzle mechanics. The created demand led to the most significant impact of the overall implementation of ‘pull the pin’ fake ads on the mobile gaming sector,

47 POPCORE GAMES: *Pull the Pin*. [Digital Game]. Berlin : Popcore Games, 2020.
48 KOMETA.GAMES: *Rescue Knight*. [Digital Game]. Moscow : Kometa.Games, 2020.

49 SUPER GAME STUDIOS: *Hero Rescue*. [Digital Game]. Hanoi : Super Game Studios, 2020.

50 KNEZOVIC, A.: *How to Advertise a Casual Mobile Game in 2020* [Infographic]. [online]. [2020-08-12]. Available at: <<https://www.blog.udonis.co/mobile-marketing/mobile-games/casual-mobile-game-advertising/>>.

51 FISHMAN, J.: *Why Do Mobile Gaming Companies Use Fake Ads? One More Point*. [online]. [2020-08-11]. Available at: <<https://www.storemaven.com/mobile-gaming-companies-fake-ads/>>.

52 For more information, see: ISLAM, M. R.: Numeric Rating of Apps on Google Play Store by Sentiment Analysis on User Reviews. In *1st International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT 2014)*. Piscataway : IEEE, 2014, p. 1-4. [online]. [2020-08-12]. Available at: <<https://ieeexplore.ieee.org/document/6919058>>.

namely the establishment of the new independent puzzle games subgenre. Concerning digital games, such an effect is quite common or even to be expected, since it has already led to the creation of many game genres, subgenres or micro-genres in the past and present.⁵³

As digital games with their core gameplay based on 'pull the pin' mechanics came to the market, it became less obvious whether ads are fake or not, so the rate of clicking on ads by gamers had to logically increase to gain additional information about the promoted games. On the other hand, the nature of the ads themselves has gradually changed in the context of competition. While *Hero Wars* fake ads already included the verbal addition that 'Not all images represent actual gameplay', the game *Pull Him Out*⁵⁴ implemented the opposite claim 'Wow the actual game from all those ads' that emphasised the fake nature of such ads in games like *Hero Wars* or *Gardenscapes*. This strategy is similar to *culture jamming*⁵⁵ and *adbusters*.⁵⁶

Later, *Hero Wars* also started to use the design of 'pull the pin' gameplay to support engagement on the game's *Facebook* page in the form of visual quizzes. Numbers or letters marked interactive parts of the puzzle depicted by a static image, and the gamers needed to post commentaries with the order of interacting with the marked elements to achieve the stated goal. Currently, this game often utilises another originally fictional mechanics ('connect the pipeline') as 'fake gameplay ads', so we can just assume how long it will take until this concept will become widespread across the market, and subsequently lead to the establishment of a new independent game subgenre.

Conclusion

The mobile gaming sector has grown rapidly in recent years, and currently, it has the largest share of the global games market. To be able to achieve success in this over-saturated market, many mobile games' creators implement creative, but even risky, advertising strategies. One of the recent trends in mobile games promotion is fake game/gameplay ads, namely ads, which promote the game by depicting gameplay footage that is, however, not reflecting the actual essential gameplay of the promoted game in some way. The phenomenon appeared for the first time around mid-2019 and has spread notably since then. This study aimed to investigate this trend, focusing on the original fictional game 'pull the pin' mechanics utilised in fake gameplay ads (a puzzle principle of 'pulling the pins' in the right order to reach the goal that firstly appeared in the game *Hero Wars*), examine its extent and impact on game ratings and other aspects of the mobile gaming sector.

The case study showed that 10 different mobile games have used this fake gameplay for their promotion during H1 2020 in observed games, and dozens of others were found by deeper examinations (overall 106 games on *Google Play* implementing 'pull the pin' mechanics in their gameplay or promotional elements up to 9th August 2020). The impact of 'pull the pin' fake ads on 'fake-vertised' games' ratings was mostly negative, indicating that over one-fifth of all-time negative ratings could possibly have been caused directly by using 'fake gameplay ads', and negatively affect conversion rates in the long term. Criticism from the players followed by the effort of some games to integrate 'pull the pin' mechanics into their gameplay at least partially and later also the development of games primarily based on these mechanics led to the establishment of the new independent puzzle games subgenre.

In conclusion, fake gameplay ads represent a creative, but quite risky advertising strategy that currently builds on the fact that free-to-play game promotion is unclearly regulated by laws about misleading advertising, as well as having so far no restrictions on advertising platforms like *Google* and *Facebook*. Taking into account other designs of fake ads which are gradually appearing, we can assume that the trend of fake gameplay ads will continue in the near future resulting in two key effects: negative impact on games' ratings from the long-term implementation of 'fake-vertising', and the establishment of new game genres and subgenres.

53 BUČEK, S., KOBETIČOVÁ, M.: Establishing New Genres in Digital Games: The Auto Battler Case Study. In *Acta Ludologica*, 2020, Vol. 3, No. 1, p. 49-52.

54 LION STUDIOS: *Pull Him Out*. [Digital Game]. San Francisco : Lion Studios, 2020.

55 STURKEN, M., CARTWRIGHT, L.: *Studia vizuální kultury*. Prague : Portál, 2009, p. 304-308.

56 ZDANOWICZ-CYGANIAK, K.: Strategia komunikacji cyfrowej ruchu społecznego sprzeciwu – Adbusters Media Foundation. In FILIPCZYK, B., GOŁUCHOWSKI, J. (eds.): *Cyfrowa komunikacja organizacji*. Katowice : Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, 2020, p. 228-231.

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