

# “That’s PEGI, the American system!”: Perceptions of video game age ratings among families in Norway

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## Abstract

The Pan-European Game Information (PEGI) age rating system was established as a self-regulatory system in 2003 and has been touted as a success story of modern European media regulation. Today PEGI provides video game age ratings for nearly 40 European countries on a vast array of digital platforms. Now, almost two decades after the introduction of PEGI, little is known about how the self-regulation of video games has been received by the end-user, and how the evolving landscape of digital media platforms has affected this reception. The current study draws on qualitative interview data from families in Norway to investigate perceptions and applications of video game age ratings, emphasizing regulatory challenges. The study finds that while families use video game age ratings actively as a part of their investigative practices, there is a severe lack of knowledge about media regulation and a strong sense of Americanization. The study also indicates that families view media age ratings homogeneously without much attention paid to variations in-between different rating systems. I conclude that research on media regulation needs to move beyond a theoretical and legislative vacuum devoid of the end-user’s reality to better enable public knowledge and scrutiny of media regulation.

## Keywords

co-regulation, media regulation, parental mediation, platformization, self-regulation, video games

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## Introduction

The Pan-European Game Information (PEGI) age rating system has generally been celebrated as a success story of industry self-regulation (De Haan et al., 2013: 114; Staksrud, 2013: 101–103), and it is frequently cited as a prime example of modern European media policy in practice (Marsden et al., 2020; Thorhauge, 2018). PEGI was established in 2003 to generate a harmonization of age recommendations for video games across Europe and build a trustworthy system by incorporating national stakeholders while still taking into consideration cultural differences (Council of the European Union, 2002; ISFE, 2022). Today, PEGI both supports and has in some cases replaced national systems (European Commission, 2008; Latzer et al., 2013: 379).

In research, the privatization and globalization of media regulation has been addressed for some time (Lunt and Livingstone, 2011; Marsden, 2011), evoking questions concerning the legitimacy and trustworthiness of self-regulatory agencies managed by the industry (De Haan et al., 2013; Latzer et al., 2013: 382–384). Furthermore, it has been argued that the supranational nature of the PEGI system, and other video game age rating agencies, requires a homogenization of cultural values that may clash with national sensibilities (Staksrud, 2013; Thorhauge, 2018), thereby hindering its adoption in families' day-to-day media use.

Today, the emerging influence and power of global digital media platforms and their vast digital ecosystems have become the subject of great scholarly attention (e.g. Gorwa, 2019; van Dijck et al., 2018). This development further complicates the regulatory picture by introducing new self-governed “powerhouses,” such as Apple, Facebook and Google, that introduce parallel age ratings and further challenge democratic legitimacy through a lack of regulatory transparency (Gillespie, 2018).

The regulation of video games in Europe has, however, not received much academic scrutiny. Empirical studies on the application of age ratings in Europe are equally far and few between, primarily quantitative in method and close in time to the establishment of PEGI (see Bijvank et al., 2009; Gosselt et al., 2012a; Nikken and Jansz, 2007; Nikken et al., 2007). Consequently, almost two decades after the introduction of PEGI, little research has critically investigated perceptions and applications of video game age ratings among its users. Due to the increasing influence of digital platforms, it is important to understand how the changing landscape of digital media distribution and governance influences and interacts with well-established media regulation.

Against this background, the current study aims to investigate how families with children who have grown up in a media environment where PEGI has always been present perceive and apply video game ratings, as well as identify which challenges, if any, are involved in doing so. This is done by drawing on qualitative interviews conducted with families of 9–17-year-olds in Norway.

## The establishment of the PEGI system

PEGI is currently in use in 38 European countries, as well as some countries outside Europe, and is designed to inform consumers and protect children from content that is defined as “inappropriate” (PEGI, 2017a, 2017b). PEGI age ratings appear on all three

major gaming consoles (PlayStation, Xbox and Nintendo), multiple PC storefronts, as well as Google and android-based devices such as mobile phones, tablets and Chromebooks. The exceptions are mainly games on Apple devices that are rated using an in-house rating system. As of 2022, PEGI operates with eight main content categories (violence, sex, bad language, discrimination, drugs, gambling, fear, and in-game purchases), resulting in one of five possible age ratings (3, 7, 12, 16, and 18) for video games.

In media research the push toward self-regulatory rating agencies, such as ESRB (Entertainment Software Rating Board) and PEGI, have been viewed as symptomatic of de-regulation tendencies and the globalization of media regulation driven by neo-liberal policies that emphasize efficiency and governmental cost-cutting (Latzer et al., 2013; Lunt and Livingstone, 2011). Hence, the democratic considerations that guide national media regulation, such as the rights of the child, are replaced by a customer orientated logic (Kerr, 2017: 25; Lunt and Livingstone, 2011; Thorhauge, 2018: 137). In the case of video game age ratings, parents are the main customer (Felini, 2015: 115).

PEGI was established as a collaboration between the Interactive Software Federation of Europe (ISFE), representing the European video game industry; the European Commission; and national regulatory bodies such as the Norwegian Media Authority (European Commission, 2008; Staksrud, 2013: 101–102). While media regulation in the US has typically moved toward pure industry-self regulation, as in the case of the North-American ESRB, European policies have a stronger emphasis on public interests (Enli et al., 2019: 396; Marsden, 2011: 67–70), involving more stakeholders that increase the legitimacy of regulation (Latzer et al., 2013: 383).

Today, PEGI is organized as a not-for-profit company (PEGI, 2017a). Major stakeholders in the video game industry, such as console manufacturers and publishers, support the system both by partaking in its managing board and by following the PEGI codes of conduct. Representatives from national regulatory bodies participate in the PEGI Council, which functions as a communicative forum, where national representatives can exchange experiences and suggest changes to the system. The system also incorporates external experts and national representatives in an experts group and complaints board (PEGI, 2022). This, in effect, makes PEGI a hybrid form of self-regulation or a self-regulatory body with some co-regulatory characteristics (De Haan et al., 2013; Marsden et al., 2020). The system is in various ways integrated into national legislation in some countries, such as the UK, the Netherlands and Finland (De Haan et al., 2013: 114); nevertheless, it remains as voluntary industry recommendation in many others, including Norway.

## **Increasing complexity in the platform society**

Since its inception in 2003 the PEGI system has expanded beyond dedicated video game platforms, also providing age ratings for apps on digital storefronts, most notably Google Play. This expansion has been made possible through IARC (International App Rating Coalition) and a collaborative effort between multiple international age rating systems that provides developers of games and apps a free-of-cost self-rating system (IARC, 2022).

One obvious challenge within the area of video game regulation is that not all actors are gathered under one umbrella. Steam, the largest digital platform for PC video games, remains outside the PEGI collaboration, maintaining a laissez-faire attitude toward mandatory age ratings. Despite this, the top grossing games on the Steam-platform typically have a PEGI rating in Europe (Zendle et al., 2020). Additionally, the tech-giant Apple and its App Store self-regulate using an in-house system. While the App Store is not a dedicated gaming platform, mobile games on the platform were reported to make up 70% of the platform's total revenue in 2021 (The Verge, 2021). Accordingly, while PEGI still holds its position as the state endorsed system in many European countries, it is no longer the only show in town.

The increasing power of digital platforms in content production, distribution and content moderation is a topic of major concern in contemporary media research (Gorwa, 2019; van Dijck et al., 2018). Critics have especially pointed to the lack of transparency surrounding regulatory practices, such as manual and algorithmic content moderation (Gillespie, 2018; Marsden et al., 2020; Savolainen, 2022). In the Norwegian context, the increased influence of digital platforms such as Facebook, Google and Apple have especially sparked public debates regarding unreasonable censorship of nudity. One highly profiled case included public figures, including the former prime minister of Norway, Erna Solberg, participating in opposition to the censorship practices of Facebook by uploading the famous image of a naked girl escaping the horrors of the Vietnam war, famously dubbed "Napalm girl" (Gillespie, 2018: 1–3; Roberts, 2018). Another less publicized Norwegian example involves Apple's removal of the sex-ed podcast "Juntafil" hosted by Norway's public broadcaster NRK (2019).

Video games have similarly been struck with comparable censorious tendencies. An international example involves the highly acclaimed video game, *Papers, Please* (Pope, 2013), that has both received a BAFTA and a Peabody award. The game was initially rejected by Apple due to issues over "pornographic content" (Polygon, 2014). The game puts the player in the role of a border agent in "Arstotzka," a fictional Soviet-era state, and involves the use of de-humanizing body scanners that show naked human bodies; the decision was later reversed explained as a misunderstanding (Polygon, 2014). Another case from Norway involved the mobile game *My Child Lebensborn* (Teknopilot, 2018), which won a BAFTA in the category "Games Beyond Entertainment" for its historic dealing with the post-war conditions of "Lebensborn" children born to German soldiers and Norwegian mothers. The Lebensborn was part of an SS led racial initiative during the Second World War aimed at producing "Aryan" children (Olsen, 2005: 15). In the aftermath of the war, which saw Norway occupied by German troops from 1940 to 1945, the Lebensborn children and their mothers were seen as traitors, and were ostracized by local communities and the state (Olsen, 2005: 25–26). The game, which seeks to address this dark side of the post-war peace times, puts the player in the role of an adoptive parent of a "Lebensborn" child and makes the player responsible for helping them through a childhood characterized by bullying and social exclusion. The game was removed from Google Play in several regions for a period of time due to its inclusion of swastikas (Nordicgame, 2019). The latter example demonstrates that while games and apps on Google Play receive a PEGI ratings through IARC, in this case PEGI 12, Google governs the digital platform using an addition layer of moderation criteria. The presence of such

incidents in public media may play an important role in families' perception of media regulation, as it can be seen as off-beat with Norwegian sensibilities and lead to a rejection of foreign age ratings.

Finally, the implementation of GDPR (the General Data Protection Regulation) in 2018 introduced consumers to an additional layer of EU regulation. Consequently, video games that collect personal data from its users will both have an age recommendation based on its content (PEGI or Apple) and an GDPR-compliant age restriction. While these regulations are designed for different purposes, it is likely a confusing premise for users.

## **Research on video game age ratings**

PEGI, as a self-regulatory agency, potentially suffers from several challenges of legitimacy, which have been recognized in previous research (see Staksrud, 2013; Thorhauge, 2018) but not researched empirically in a social context.

Some of the critiques that serve as the starting point of this study view legitimacy as a question of the "democratic quality of regulation" (Latzet et al., 2013: 375). That is to say, a question of whether the regulation for instance involves democratic representation, and open and transparent processes of governance, and whether it effectively solves problems for the public (see Schmidt, 2020: Ch. 2). These constitute normative dimensions of legitimacy which are suitable for analyses using objective parameters. A broader definition of legitimacy which may be more helpful in understanding the user perspective is offered by Staksrud (2013) who defines legitimacy of public institutions "as occurring when the institution's values and actions are corresponding to the expectations of the society it operates within" (p. 88). Legitimacy seen thus is not contingent on pre-defined normative parameters, but open to subjective perceptions that may hold different assumptions and beliefs about what is legitimate. The application of this definition on research beyond public institutions, such as in the case of Staksrud (2013), is especially relevant in the context of the PEGI system, which is linked to both the EU and national authorities. Furthermore, this application supports a view that media regulation should adhere to the same standards of public scrutiny whether it is performed directly by the state, indirectly through co-regulation or independently through self-regulation.

Turning to the aforementioned scholarly critique, there is first and foremost an obvious potential for a conflict of self-interest when an industry is tasked with regulating itself (Felini, 2015; Marsden, 2011). Parents who are critical of such arrangements have little reason to trust a system that they may perceive as "paid and bought for" by the industry.

Second, the practices and principles of self-regulatory bodies may be out of public and democratic sight and influence (De Haan et al., 2013; Marsden et al., 2020). In the context of PEGI, the involvement of national regulatory agencies in PEGI is aimed at leveraging some of these challenges. However, Thorhauge (2018: 143) critically notes that while PEGI is more transparent than digital platforms such as Apple, the involvement of member states through the PEGI Council appears symbolic and primarily aimed at bolstering the legitimacy of the system. Equally, the stakeholder involvement in PEGI

may be unknown by the public, or lead to misunderstandings, such as believing that video games are regulated nationally.

Third, and perhaps most important for the current study, differences in cultural sensitivities and value systems are potentially lost in standardization, due to the supranational organization of PEGI (Staksrud, 2013; Thorhauge, 2018). What raises concern among parents in Italy, for example, is not necessarily similar to those concerns raised by parents in Norway or Latvia. Cultural differences have been noted in research on video game age ratings but are for the most part transatlantic. Findings from comparative studies suggest that nudity is expressed differently in American and European rating systems, with the American ESRB-system being more likely to classify content as “sexual content” in comparison to PEGI (Dogruel and Joeckel, 2013; Kerr, 2006).

In research revolving around families, age ratings have been found to be incorporated into the mediation practices of parents using both active dialog-orientated and restrictive strategies (Nikken and Jansz, 2006; Schaan and Melzer, 2015). Age rating checking has also been found to be applied by parents independent of their attitudes toward video games (Shin and Huh, 2011). Parents’ views on age ratings seem highly concordant when it comes to video games with the highest age ratings, but there is more split when it comes to content meant for younger children (Walsh and Gentile, 2001). A possible explanation for this can be found in studies (Funk et al., 1999; Nikken et al., 2007) that suggest that parents view cartoon and fantasy violence in a different light from content depicting realistic or brutal violence.

However, Nikken et al. (2007) found that parents with gaming experience, although being highly involved in their children’s use of video games, did not demonstrate much interest in age ratings. Newer qualitative studies from Norway and Germany support this and demonstrate that parents with gaming experience are likelier to navigate video game content more flexibly than less experienced parents, relying more on personal assessments of quality (Ask et al., 2021; Friedrichs et al., 2015).

Central to much research on video game age ratings is the issue of compliance, or “effectiveness” (Lacznik et al., 2017). There has especially been an elevated interest in the issue of whether children have access to or play games rated 18 by PEGI (Bijvank et al., 2009; Gosselt et al., 2012a; Nikken and Jansz, 2007). Lacking compliance has commonly been interpreted as an issue with the age rating system’s design (Felini, 2015), a failure by vendors and lax rule enforcement (Dorbeck-Jung et al., 2010; Gosselt et al., 2012b). At other times it is portrayed as a question of knowledge, or rather, a lack of knowledge among parents (Becker-Olsen and Norberg, 2010; Stroud and Chernin, 2008).

However, it might be argued that the emphasis of compliance as a measure of success is generally problematic, as different families are likely to hold different views of media content and the legitimacy of regulatory agencies. More importantly, the issue of compliance becomes more challenging in the context of PEGI, which aims at providing a service for users from 38 countries. Equally, the presence of parallel or adjacent age ratings provided by commercial platforms (Apple) or the EU (GDPR) introduce more complexity to the regulatory situation, which warrants further investigation. Thus, the current study asks the following research questions:

RQ1: How are video game age ratings perceived and applied in families of 9-to-17-year-olds in Norway?

RQ2: What regulatory challenges can be identified through their perception and application of video game age ratings?

## Method

### *The Norwegian context*

Norway constitutes an interesting case as it is a small media market with a strong tradition of media regulation by the welfare state (Enli et al., 2019; Solum, 2013; Syvertsen et al., 2014). The move toward supranational industry age ratings thus brings with it broader implications of denationalization and a break with regulatory tradition.

In Norway, PEGI serves as the de facto age rating system through its support via the Norwegian Media Authority (Norwegian Ministry of Culture, 2008). The country was also involved in the establishment of the PEGI system (Staksrud, 2013: 102–103). However, in Norway, the age ratings only serve as consumer recommendations. In terms of other audio-visual content, only distributors within Norway, such as TV channels and video on demand-services (VOD), are required to follow national age rating guidelines. Therefore, a multitude of age rating systems are also provided through foreign VOD-services such as Netflix, Disney+ and HBO Max. Finally, GDPR was adopted in Norway in 2018 and operationalized through an age requirement of 13 years for providing consent regarding agreements with online services that gather data about its users.

### *Sample and data collection procedure*

Participants for the study were recruited via social media platforms. Twenty-six video interviews were conducted between September 2020 and April 2021 with 13 families in Norway with children aged between 9 and 17. Children and parents were primarily interviewed separately. The sample consisted of 10 sons and 5 daughters and 10 mothers and 8 fathers (see Table 1).

The data was gathered as a part of a longer interview that explored multiple aspects of children's use of video games and digital parenting. Parents participated in a longer semi-structured interview lasting around 1.5 hours, while children's interviews lasted around 30 minutes. The study design was developed following the guidelines of the National Research Ethical Committees for Social Sciences and Humanities (NESH, 2016). The collection of personal information from the informants was pre-approved by the Norwegian Centre for Research Data. Informed consent or assent was gathered from all participants depending on their age.

For this part of the study, all participants were presented with a small icon of a PEGI age rating label that was held up by the interviewer via video chat. Respondents were asked 1) whether they recognized the label and 2) what they would usually call it. This was followed by a series of question about parents' and children's perceptions and the application of video game age ratings.

**Table 1.** Gender, age and reported platforms used for video games in household among participating families.

Family identifier	Parental gender and age	Child gender and age	Reported platforms used for video games in household
Family_1	Mother-45	Boy-15	PlayStation*
Family_2	Mother-42 Father-42	Boy-17	PlayStation*, Riot Games*, PC***
Family_3	Mother-40	Girl-9	Nintendo*, Apple**
Family_4	Mother-43 Father-46	Boy-11	PlayStation*
Family_5	Father-46	Boy-10 Girl-14	Apple**
Family_6	Mother-42 Father-45	Girl-11 Boy-13	Xbox*, Nintendo*, Steam*
Family_7	Father-43	Boy-13	Nintendo*, Apple**
Family_8	Father-48	Boy-11	PlayStation*, Nintendo*, Apple**
Family_9	Mother-49 Father-51	Boy-10	PlayStation*, Apple**
Family_10	Mother-40	Boy-11	PlayStation*, Nintendo*, mobile***
Family_11	Father-44 Mother-44	Girl-12	Apple**, Nintendo*
Family_12	Mother-53	Girl-16	Browser games***
Family_13	Mother-44	Boy-13	PlayStation*

\*PEGI age ratings (Voluntary on Steam), \*\*App Store age ratings, \*\*\*Unspecified platform.

All interviews were audio-recorded and transcribed before being transferred to NVivo 12. Coding of the transcripts combined deductive pre-established codes based on theoretical assumptions and previous research literature and emergent inductive codes. The data analysis was conducted using reflexive thematic analysis (Braun and Clarke, 2006, 2019). The analysis was conducted in three steps: First by identifying and coding multiple main themes relating to either the application or the perception of video game age ratings; second, by multiple re-readings of transcripts and analytical notes, combined with feedback from peers both familiar and unfamiliar with the topic; and third, by collapsing the established themes into one main theme broadly capturing the day-to-day application of age ratings, with an additional three themes critically concentrating on challenges emerging from families' perceptions and application of video game age ratings.

## Findings

### *The day-to-day application of age ratings*

Overall, the majority of the families used age ratings quite pragmatically by taking relatively homogeneous approaches, something also found in previous research. Parents first



performed a “game rating checking” (Shin and Huh, 2011), and then engaged in “investigative mediation practices” (Jiow et al., 2017) to decide whether to adhere to the recommendation. The most common investigative method was to research games using Google searches, YouTube videos or visiting Norwegian language webpages: “Mother usually goes into a webpage, and she checks what age rating it is and stuff like that” (13-year-old boy, family\_13).

In a few cases, parents played, watched or co-played video games with their child if they still were in doubt. This was most common among parents who had played video games actively in their past. However, parents and children commonly described that the investigatory approach applied in their household had an upper limit at games rated 18, which were perceived as being “different” and beyond negotiation due to their graphic violent content. As one informant put it: “But age ratings are always recommendations. They aren’t necessarily absolute. Not all at least? But if it’s 18, then it’s more absolute than other things, I believe” (40-year-old mother of 9-year-old girl, family\_3). This tendency supports the previous consensus in the research literature that suggests that parents are more harmonized in their views regarding video games with highly rated content (Funk et al., 1999; Nikken et al., 2007; Walsh and Gentile, 2001).

Most children were highly aware of what kind of content and age ratings their parents would or would not allow and reported keeping within these parameters. In some cases, this was also a technical issue, as around half of the families described the use of technical parental controls to regulate access to video games: “Then I go into the App Store and click download. But I have a question-thingy, so I have to ask father first and then he has to permit it” (10-year-old boy, family\_9). The practices surrounding parental controls were, however, mainly described as a mundane “application form,” which was highly negotiable.

*Confusion about who rates video games.* When shown the PEGI age rating labels during the interviews, most respondents recognized them. Some called them by name (i.e. PEGI), while others referred to them as video game age “ratings” or “limits.” However, almost none of the respondents had a confident answer as to who was responsible for providing them. Responses were either based on assumptions or guesses which have been grouped below into four sub-themes.

*Norwegian authorities.* A group of parents assumed that the system was run by or affiliated with the Norwegian state. These parents mainly expected involvement by supervisory bodies such as media, data or consumer authorities. The Norwegian state has a history of strong state media regulation (Syvertsen et al., 2014), and an over 100-year-old track record of film regulation (Solum, 2013); thus, it is not surprising that some parents expected governmental agencies to be responsible for other forms of audio-visual media as well. This may also be linked to the fact that the Norwegian Media Authority has played an active role in providing information about PEGI through its official webpages (Norwegian Media Authority, 2021).

*European or international.* Some parents were aware of or expected the age ratings to have a pan-European or international scale. Their responses ranged from general

perceptions of it being based on “international standards” to more concretely pointing to the EU:

. . . on video games, it’s probably some international, European stuff or something that applies ratings? And Norway probably follows along, I don’t know, as a member of EEA [European Economic Area] or something? Don’t know. (53-year-old mother of 16-year-old girl, family\_12)

The strength and presence of the EU, even for a country that is not a full member, may, in other words, have instilled the thought of the supranational as the new regulatory frame of reference.

*The industry.* Approximately half of the children used terms such as “those who make the games” (10-year-old boy, family\_7), or referred specifically to game publishers or the name of the digital storefronts, such as “App Store” (14-year-old girl, family\_5). This is perhaps not so strange, as the digital ecosystem of young people today, ranging from video games, YouTube, social media and international VOD-services, are, to a great degree, regulated by the industry actors themselves (De Haan et al., 2013; Gillespie, 2018). The other half of the children in the study answered that they did not know and did not offer any guesses.

The homogeneity of children’s responses may first reflect that for children, age ratings are mainly encountered in the context of the games themselves, for example through digital storefronts, game covers and loading screens. Second, the large number of children who did not provide an answer or a guess may point to their lack of awareness of the role played by national or international institutions in various forms of regulation. Additionally, parents may have felt a stronger social desirability effect to answer as the inquiry “tested” their knowledge.

Also, a couple of fathers suggested that the age ratings were probably a product of industry self-regulation, either directly or via some institute or agency.

. . . if it’s an industry organization that does it on behalf of game companies, or, if it’s the game companies themselves that have to lead in the middle of all these commercial considerations, that they do in terms of reaching out to as many consumers as possible and so on. I don’t know. (43-year-old father of 13-year-old boy, family\_7)

The father acutely pointed out the conflict of interest surrounding industry self-regulation. While the issue was brought up, none of the parents were especially critical of the arrangement and did not mistrust age ratings due to their potential organization by the industry.

Finally, a fourth group of respondents as a part of a larger pattern in the data material believed PEGI was American. This will be addressed further below.

### *Perceived Americanization decreases legitimacy*

An emerging theme throughout several of the interviews was the perceived role played by US sensibilities in the regulation of video games. Despite the European PEGI system

being the de facto age rating system in Norway, the USA was the only country that was brought up for the sake of comparison throughout the interviews. Such mentions were often general, oftentimes related to broader media discourses. There were, however, also instances in which the European PEGI system was discussed specifically as being American.

A 13-year-old boy, who was very knowledgeable about video games, believed that the age ratings were linked to the US government, and comedically parodied a nondescript US politician:

Violent video games cause violence. Hiya! [Said with American English accent]. So, then they came up something in the form of “government” [government said in English]. . . But I don’t remember completely. . . I at least believe *Mortal Kombat* did it. Or was the one that started the whole struggle with getting ratings. (13-year-old boy, family\_6)

The boy could also provide a brief account of the historical context surrounding the establishment of the North American ESRB system. This may suggest that this boy, like other parents, intermingled ESRB with PEGI, or other rating systems for that matter. Or perhaps it is indicative of a more general understanding of video game regulation as an Americanized political development, ushered in by the establishment of a US age rating system. In the interview with his parents, his mother responded quickly when shown the PEGI labels and identified them as: “That’s PEGI, the American system. . . They probably get paid by donations from some ‘rich uncles’ to rate everything people don’t like strictly” (42-year-old mother of 11-year-old girl and 13-year old boy, family\_6). The parents expected PEGI to be a form of “moral police,” representing the interests of a small group of wealthy Americans. As such it was not surprising that these parents were the most lenient when it came to applying age ratings, in one instance allowing a game rated PEGI 18, with some reluctance by the mother.

Nudity was brought up as a particular issue that was unproblematic for parents in the sample, but that Americans were thought to regulate strictly. The perceived differences in cultural sensibilities informed parents’ investigative practices, as games may have received “too high” an age rating on the wrong grounds, such as nudity:

American [ratings] I think often can be a bit, yeah. They have so much double standards when it comes to nudity. For example, normal nudity, without any sexual content, I think isn’t that dangerous. But American restrictions would just “no, no, no,” here you see a naked butt, so yeah. But the Norwegian ones I think are very reasonable. (44-year-old father of 12-year-old girl, family\_11)

As was common for many of the interviews, it was not always clear what ratings interviewees specifically referred to as American or Norwegian. Most commonly, when asked to elaborate, such statements were based on Norwegian cinema age ratings and a mélange of digital and audio-visual media age ratings. This was part of a cross-cutting tendency in the data material in which age ratings were commonly homogenized.

In another case, a father (51-year-old father of 10-year-old boy, family\_9) described his annoyance with “American” restrictions on YouTube and an Apple product as they

severely limited their child's access to content: “. . . it is also so that these Americans are a bit (laughs briefly) . . . well you can do some restrictions there [YouTube], but then it's suddenly very little you can access.” Consequently, the parents' initial goal of restricting what they saw as potentially harmful, namely, violent video games and YouTube content, became absorbed by a larger and “foreign-feeling” regulatory regime, forcing them to overturn what they perceived as erroneous over-policing of the child's media activities.

### *Differing perceptions causes social conflict*

Many parents in the sample reported that their application of video game age ratings was either pragmatically motivated, based on trust in the age rating, or both. One instance of this was parents who viewed age ratings as a ready-made argument that they could use to restrict games without having to engage in lengthy discussions: “It was useful when he was younger in order to just say ‘no, sorry, it's a 16-year-old game’ [rated 16]” (42-year-old mother of 17-year-old boy, family\_2). For a number of parents, compliance with age ratings was also seen as a matter of trust since they after all were decided by experts: “. . . I think that there is someone who has specialized themselves in this and found out that these are correct age ratings, so then I don't think I have to go into detail” (46-year-old father of 10-year-old boy and 14-year old girl, family\_5). Parents, as illustrated by this father's quote, mainly emphasized that they did not consider themselves in a position to scrutinize the age ratings, and that it would be very time consuming to research every single video game the child wanted to play in detail.

The main counter-perspective to this perspective was found among a small group of parents who had a very positive attitude toward video games and considered themselves as highly involved in their children's gaming. These parents emphasized that age ratings were only recommendations and considered it to be a parental responsibility to put effort into researching games.

. . . it's very individual. It depends on if they have older siblings, it depends on how they are as a person, are they very anxious or something like that . . . it's very advisory. And so you have to bother to look what's behind it. (48-year-old father of 11-year-old boy, family\_8)

These parents felt that they were being scrutinized by other parents, seen as irresponsible for being liberal about age ratings even though they were highly involved and knowledgeable about their children's use of video games: “I get ugly looks from the other mothers. Because I'm the mother in the neighbourhood that all the other children come home and talk about” (42-year-old mother of 11-year-old girl and 13-year-old boy, family\_6). Equally, another mother (40-year-old mother of 9-year-old girl, family\_3) explained that disagreements between parents could stem from confusion, as many parents did not know the difference between content age ratings and GDPR age restrictions pertaining to the sharing of private data. Consequently, the mother who in her own view was very attentive to video game content was mistakenly criticized for being too relaxed due to other parents' lack of knowledge. Thus, the difference in perceptions regarding what age ratings constitute was a source of steady conflict between groups of parents in the context of school and family life. Several families also reported similar

disagreements between the parents themselves, usually with the mothers being perceived as the strictest.

## **Conclusion**

One of the initial assumptions, which guided the current study, suggested the potential for great discrepancies between what video game ratings offer its users and what users may need on a national basis (Staksrud, 2013; Thorhauge, 2018). The study did not, however, find great indications of widespread conflict stemming from differing European cultural sensitivities. This is interesting as Norway has historically had high levels of popular resistance to the European Union and a national identity shaped by opposition to political and cultural dominance by its neighbors and former rulers Denmark and Sweden (Ingebritsen and Larson, 1997: 215–217). However, Norway simultaneously has a paradoxical relationship to the EU characterized by high levels of participation and implementation, which is not only on level with full EU members, but also surpassing many (Gänzle and Henökl, 2017: 88–89). Thus, EU integration on a national level may be so normalized that European influence in this context may be seen as taken for granted, without evoking much concern.

To a large extent, it appears that most parents were satisfied and engaged quite pragmatically with the age ratings systems, mainly PEGI, in essence boiling it down to a question of violent content. The study shows that for the most part families make use of video game age ratings as part of their investigatory mediation practices. This mainly involves a flexible evaluative approach that varies from family to family. In particular, parents with positive attitudes toward gaming were more prone to conduct individual assessments that, not only considered the age rating, but also the game's content and perceived quality. These findings are in line with previous research on video games in the family context (Jiow et al., 2017; Nikken and Jansz, 2007; Nikken et al., 2007; Shin and Huh, 2011) and demonstrate that video game age ratings have a highly normalized position as a part of the families' use of video games.

At the same time, four issues of confusion emerged through the study as perhaps greater challenges to parents' application of video game age ratings.

First, both parents and children were quite aware of the existence of age ratings for video games, some explicitly referring to PEGI, which did, in fact, play a great role in parents' decision-making, and thereby children's access to video games. However, there was a clear lack of awareness about who actually rated video games. Families, for the most part, appeared quite detached from the issue of media regulation, and were often-times bewildered when asked about this during the interview. This points to the somewhat pragmatic attitude among parents, seeing the system mainly for its utility despite not really knowing who was in charge.

Second, negative perceptions of Americanization were reported by several parents and children. Parents commonly referred to "the Americans" as the point of reference, and the reason why nudity was commonly wrongly rated. In some instances, such mentions were directly in reference to the European PEGI system; at other times it was during more general expressions of annoyance with video game ratings or other media age ratings. The cultural tensions in the data material suggest a perceived

Norwegian–American divide in which American ratings are seen as more morally motivated and thus less legitimate. These perceptions may be an expression of broader cultural differences, such as differing views on sexual morals and levels of religiosity, with Norway being among the most secular and sexually liberal societies in the world (Bendixen et al., 2017). Similarly, in regard to cinema age ratings, which were a common frame of reference in the interviews, American ratings have been found to restrict sexual content and profanity more strictly than violence, with the opposite being true in Norway (Price et al., 2014: 242).

I will suggest two possible interpretations as to why there were strong perceptions of Americanization in the findings. Despite the global status of video games, it is not an even playing field, as some countries, especially the USA, have a stronger position in the video game market (Kerr, 2017). This is visible through the gaming habits of children in Norway, which lean heavily toward games published by US companies (Norwegian Media Authority, 2020: 11). This may lead to an expectation of great American influence, not only in the production of video games, but also in their regulation. Moreover, broader public discourses regarding unreasonable censorship of nudity on American social media platforms have been highly prominent in Norwegian public debate and news media (Gillespie, 2018: 1–3; Roberts, 2018). Such debates may additionally create an impression that regulation of digital media as a whole is dominated by American companies. Accordingly, the major threat to the legitimacy of video game age ratings in the study stemmed from, sometimes unwarranted, perceptions of American influence.

Third, the study indicates that differing views on the status of video game age ratings is seen as a contributing source of conflict among different groups of parents and in between parents. In light of the other challenges presented in the study, it is not hard to see how parents, based on different expectations and interpretations, sometimes struggle to find common ground, despite the “lingua franca” offered by video game age ratings. This demonstrates how the complex and untransparent regulatory situation can trickle down to the social level creating confusion and uncertainty.

Finally, a central cross-cutting tendency in the study was the fact that interviewees talked about age ratings as a general multimedia phenomenon. On the one hand, this hints at age ratings as convergent, for example through the co-inhabitation of video games and apps on digital platforms. However, on the other hand, it points toward the complex media ecology and associated age ratings that families engage with. The organizational complexity of the PEGI system combined with the parallel in-house Apple system, GDPR and a plethora of other media age ratings, produce a cacophonous state of affairs. Families are therefore likely to engage with a vast amount of different media age rating systems on a weekly, or even daily, basis. This makes it hard to expect them to clearly distinguish each system from the other. What becomes important to comply with or negotiate is “the rating” in front of you, not necessarily the origin and rationale of the underlying age rating system. That is perhaps only truly interesting in the minds of media researchers.

The findings of the current study demonstrate the analytical strength of applying qualitative and more phenomenologically orientated approaches to understanding the perceptions of media regulation among its users. In the context of algorithms, such approaches have been found valuable due to their abstract and untransparent nature (e.g. Bucher, 2017; Ytre-Arne and Moe, 2021). This study, however, also demonstrates that user’s knowledge

about well-established media regulation cannot be taken for granted and is important to research in itself. Thus, I argue that the legitimacy of media regulation cannot be analyzed in a theoretical and legislative vacuum devoid of the perceptions of the end-user.

The findings suggest that while families generally fare well in terms of the day-to-day application of video game age ratings, they are perhaps not in a position to evaluate the legitimacy of such age ratings. Although it appears that many parents perceive the age ratings themselves as credible, due to an expectation of expert involvement in the rating process, little is known about who actually rates video games and how they do so. Thus, what this study touches upon is perhaps not whether the PEGI system and other rating agencies are perceived as legitimate by the users, but rather whether age ratings seen as a diffuse and homogenous entity are viewed as useful and credible in themselves. There appears to be a severe information deficit pertaining to media regulation, resulting in side-effects that challenge the application of age ratings in families and potentially weaken public scrutiny of both older and newer forms of media regulation. Consequently, it is likely that public discourses on the influence of American digital platforms creates an unbalanced perception.

Future research should therefore re-investigate and consider the self-regulatory and co-regulatory agencies established in the past decades as co-inhabitants of the media landscape of the “platform society” (van Dijck et al., 2018). Equally, it is important to investigate how knowledge about media regulation, including platform governance, can be introduced to media literacy policies to increase public knowledge and scrutiny. Finally, more research is needed to explain the current state of media regulation that families encounter, and how these help or hinder parental mediation efforts and media experiences. This can be done by looking into the issue from a broad media ecological approach that includes the entirety of age ratings parents and children encounter in their media everyday lives. Such research could contribute to a greater understanding of how families engage with different age ratings, how they influence families’ decisions and when they collide or cause tensions. This can hopefully lead to better parental awareness of the messiness of the regulatory situation, and in turn enable some calibration of the assumptions held by users. This may ultimately promote a greater emphasis on consensus and collaboration between parent groups who hold different perceptions of media age ratings. This is especially urgent given the increasing importance of global cross-media platforms in families.

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## References

- Ask K, Sørenssen IK and Moltubakk ST (2021) The struggle and enrichment of play: Domestications and overflows in the everyday life of gamer parents. *Nordicom Review* 42(s4): 107–123.
- Becker-Olsen KL and Norberg PA (2010) Caution, animated violence. *Journal of Advertising* 39(4): 83–94.
- Bendixen M, Asao K, Wyckoff JP, et al. (2017) Sexual regret in US and Norway: Effects of culture and individual differences in religiosity and mating strategy. *Personality and Individual Differences* 116: 246–251.
- Bijvank MN, Konijn EA, Bushman BJ, et al. (2009) Age and violent-content labels make video games forbidden fruits for youth. *Pediatrics* 123(3): 870–876.
- Braun V and Clarke V (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2): 77–101.
- Braun V and Clarke V (2019) Reflecting on reflexive thematic analysis. *Qualitative Research in Sport Exercise and Health* 11(4): 589–597.
- Bucher T (2017) The algorithmic imaginary: exploring the ordinary affects of Facebook algorithms. *Information Communication & Society* 20(1): 30–44.
- Council of the European Union (2002) *Council Resolution: On the Protection of Consumers, in Particular Young People, Through the Labelling of Certain Video Games and Computer Games According to Age Group*. Brussels: Council of the European Union. Available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:065:0002:0002:EN:PDF> (accessed 25 June 2022).
- De Haan J, Van der Hof S, Bekkers W, et al. (2013) Self-regulation. In: O'Neill B, Staksrud E and McLaughlin S (eds) *Towards a Better Internet for Children? Policy Pillars, Players and Paradoxes*. Gothenburg: Nordicom, pp.111–129.
- Dogruel L and Joeckel S (2013) Video game rating systems in the US and Europe: Comparing their outcomes. *International Communication Gazette* 75(7): 672–692.
- Dorbeck-Jung BR, Vrieling Oude MJ, Gosselt JF, et al. (2010) Contested hybridization of regulation: Failure of the Dutch regulatory system to protect minors from harmful media. *Regulation & Governance* 4(2): 154–174.
- Enli G, Raats T, Syvertsen T, et al. (2019) Media policy for private media in the age of digital platforms. *European Journal of Communication* 34(4): 395–409.
- European Commission (2008) *Communication From the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Protection of Consumers, in Particular Minors, in Respect of the Use of Video Games*. Brussels: European Commission. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52008DC0207> (accessed 25 June 2022).
- Felini D (2015) Beyond today's video game rating systems: A critical approach to PEGI and ESRB, and proposed improvements. *Games and Culture* 10(1): 106–122.



- Friedrichs H, von Gross F, Herde K, et al. (2015) Parents' views of video games: Habitus forms in the context of parental mediation. *Journal of Media Literacy Education* 7(1): 58–64.
- Funk JB, Flores G, Buchman DD, et al. (1999) Rating electronic games: Violence is in the eye of the beholder. *Youth & Society* 30(3): 283–312.
- Gänzle S and Henökl T (2017) From 'awkward partner' to 'awkward partnership'? Explaining Norway's paradoxical relations with the European Union. In: McCallion MS and Brianson A (eds) *Nordic States and European Integration: Awkward Partners in the North?* Cham: Palgrave Macmillan, pp.79–102.
- Gillespie T (2018) *Custodians of the Internet: Platforms, Content Moderation, and the Hidden Decisions That Shape Social Media*. New Haven, CT: Yale University Press.
- Gorwa R (2019) What is platform governance? *Information Communication & Society* 22(6): 854–871.
- Gosselt J, Van Hoof J and De Jong M (2012b) Media rating systems: Do they work? Shop floor compliance with age restrictions in the Netherlands. *Mass Communication & Society* 15(3): 335–359.
- Gosselt JF, De Jong MDT and Van Hoof JJ (2012a) Effects of media ratings on children and adolescents: A litmus test of the forbidden fruit effect. *Journal of Communication* 62(6): 1084–1101.
- IARC (2022) About IARC. Available at: <https://www.globalratings.com/about.aspx> (accessed 11 July 2022).
- Ingebritsen C and Larson S (1997) Interest and identity: Finland, Norway and European Union. *Cooperation and Conflict* 32(2): 207–222.
- ISFE (2022) PEGI: The European content rating system. Available at: <https://www.isfe.eu/responsible-gameplay/pegi-the-european-content-rating-system/> (accessed 11 July 2022).
- Jiow HJ, Lim SS and Lin J (2017) Level up! Refreshing parental mediation theory for our digital media landscape. *Communication Theory* 27(3): 309–328.
- Kerr A (2006) Spilling hot coffee? Grand Theft Auto as contested cultural product. In: Garretts N (ed.) *A strategy guide for studying the Grand Theft Auto series*. Jefferson: McFarland Press, pp.17–34.
- Kerr A (2017) *Global Games: Production, Circulation and Policy in the Networked Era*. London: Routledge/Taylor & Francis Group.
- Lacznik RN, Carlson L, Walker D, et al. (2017) Parental restrictive mediation and children's violent video game play: The effectiveness of the Entertainment Software Rating Board (ESRB) rating system. *Journal of Public Policy & Marketing* 36(1): 70–78.
- Latzer M, Just N and Saurwein F (2013) Self- and co-regulation: Evidence, legitimacy and governance choice. In: Price ME, Verhulst SG and Libby M (eds) *Routledge Handbook of Media Law*. New York: Routledge, pp.373–397.
- Lunt PK and Livingstone S (2011) *Media Regulation: Governance and the Interests of Citizens and Consumers*. London: SAGE.
- Marsden C, Meyer T and Brown I (2020) Platform values and democratic elections: How can the law regulate digital disinformation? *Computer Law & Security Review* 36: 105373.
- Marsden CT (2011) *Internet Co-regulation: European Law, Regulatory Governance and Legitimacy in Cyberspace*. Cambridge: Cambridge University Press.
- NESH (2016) *Guidelines for Research Ethics in the Social Sciences, Humanities and Theology*, 4th edn. Oslo: The Norwegian National Research Ethics Committees. Available at: [https://www.forskningsetikk.no/globalassets/dokumenter/4-publikasjoner-som-pdf/60127\\_fek\\_guidelines\\_nesh\\_digital.pdf](https://www.forskningsetikk.no/globalassets/dokumenter/4-publikasjoner-som-pdf/60127_fek_guidelines_nesh_digital.pdf)
- Nikken P and Jansz J (2006) Parental mediation of children's videogame playing: A comparison of the reports by parents and children. *Learning Media & Technology* 31(2): 181–202.

- Nikken P and Jansz J (2007) Playing restricted video games: Relations with game ratings and parental mediation. *Journal of Children and Media* 1(3): 227–243.
- Nikken P, Jansz J and Schouwstra S (2007) Parents' interest in videogame ratings and content descriptors in relation to game mediation. *European Journal of Communication* 22(3): 315–336.
- Nordicgame (2019) BAFTA winner My Child Lebensborn banned by Google. Available at: <https://nordicgame.com/bafta-winner-my-child-lebensborn-banned-by-google/> (accessed 6 July 2022).
- Norwegian Media Authority (2020) Gaming og pengebruk i dataspill: Delrapport 3 [Gaming and money spending in video games: Report part 3]. *Report, The Norwegian Media Authority, Norway*, April. Available at: <https://www.medietilsynet.no/globalassets/publikasjoner/barn-og-medier-undersokelser/2020/200402-delrapport-3-gaming-og-pengebruk-i-dataspill-barn-og-medier-2020.pdf>
- Norwegian Media Authority (2021) Aldersgrenser på dataspill [Age limits on video games]. Available at: <https://www.medietilsynet.no/digitale-medier/dataspill/dataspill-a-a/#Dette%20betyr%20Pegi-symbola-1> (accessed 6 July 2022).
- Norwegian Ministry of Culture (2008) Video games (Report No. 14 to the Storting (2007–2008)). Available at: <https://www.regjeringen.no/en/dokumenter/report-no.-14-to-the-storting-2007-2008/id502808/> (accessed 6 July 2022).
- NRK (2019) Juntafil sensurert av Apple [Juntafil censored by Apple]. Available at: [https://www.nrk.no/kultur/juntafil-sensurert-av-apple-\\_\\_-1.14450322](https://www.nrk.no/kultur/juntafil-sensurert-av-apple-__-1.14450322) (accessed 12 July 2022).
- Olsen K (2005) Children of World war II: The Hidden Enemy Legacy. In: Erickson K and Simonsen E (eds) *Under the Care of Lebensborn: Norwegian War Children and Their Mothers*. Oxford: Berg, pp.15–34.
- PEGI (2017a) The PEGI organization. Available at: <https://pegi.info/page/pegi-organisation> (accessed 29 June 2022).
- PEGI (2017b) What are ratings? Available at: <https://pegi.info/page/pegi-age-ratings> (accessed 29 June 2022).
- PEGI (2022) The PEGI Committees. Available at: <https://pegi.info/page/pegi-committees> (accessed 29 June 2022).
- Polygon (2014) Apple mistakenly censored Papers, Please on iOS, nudity is being patched back in. Available at: <https://www.polygon.com/2014/12/12/7384191/papers-please-ios-nudity-patch> (accessed 6 July 2022).
- Pope L (2013) *Papers, Please: A Dystopian Document Thriller* [Video game]. 3909 LLC.
- Price J, Palsson C and Gentile D (2014) What matters in movie ratings? Cross-country differences in how content influences mature movie ratings. *Journal of Children and Media* 8(3): 240–252.
- Roberts ST (2018) Digital detritus: 'Error' and the logic of opacity in social media content moderation. *First Monday*. Epub ahead of print 5 March 2018. DOI: 10.5210/fm.v23i3.8283.
- Savolainen L (2022) The shadow banning controversy: Perceived governance and algorithmic folklore. *Media Culture & Society* 44(6): 1091–1109.
- Schaan VK and Melzer A (2015) Parental mediation of children's television and video game use in Germany: Active and embedded in family processes. *Journal of Children and Media* 9(1): 58–76.
- Schmidt VA (2020) *Europe's Crisis of Legitimacy: Governing by Rules and Ruling by Numbers in the Eurozone*. Oxford: Oxford University Press.
- Shin W and Huh J (2011) Parental mediation of teenagers' video game playing: Antecedents and consequences. *New Media & Society* 13(6): 945–962.

- Solum O (2013) Kinolov i hundre år: En introduksjon [Cinema law for a hundred years: An introduction. In: Solum O (ed.) *Film Til Folket: Sensur Og Kinopolitikk i 100 År [Film for the People: Censorship and Cinema Policy for a 100 Years]*. Oslo: Akademika, pp.9–22.
- Staksrud E (2013) *Children in the Online World: Risk, Regulation, Rights*. Farnham: Ashgate.
- Stroud NJ and Chernin A (2008) Video Games and the ESRB. *Journal of Children and Media* 2(1): 1–18.
- Syvertsen T, Enli G, Mjøs OJ, et al. (2014) *The Media Welfare State: Nordic Media in the Digital Era*. Ann Arbor, MI: University of Michigan Press.
- Teknopilot (2018) *My Child Lebensborn* [Video game]. Sarepta Studios.
- The Verge (2021) The Epic v. Apple ruling could put a serious dent in Apple's \$19 billion App Store business. Available at: <https://www.theverge.com/2021/9/10/22667047/apple-epic-ruling-games-app-store-fortnite-revenue-purchases-business> (accessed 12 July 2022).
- Thorhaug AM (2018) The privatization of age classification. In: Sørensen E (ed.) *Cultures of Computer Game Concerns*. Bielefeld: transcript Verlag, pp.137–148.
- van Dijck J, Poell T and de Waal M (2018) *The Platform Society*. New York, NY: Oxford University Press.
- Walsh DA and Gentile DA (2001) A validity test of movie, television, and video-game ratings. *Pediatrics* 107(6): 1302–1308.
- Ytre-Arne B and Moe H (2021) Folk theories of algorithms: Understanding digital irritation. *Media Culture & Society* 43(5): 807–824.
- Zendle D, Meyer R, Cairns P, et al. (2020) The prevalence of loot boxes in mobile and desktop games. *Addiction* 115(9): 1768–1772.